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Original Research Article

Adaptations Made to Pediatric Consultation-Liaison Psychiatry Service Delivery During the Early Months of the COVID-19 Pandemic: A North American Multisite Survey



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Background: *The COVID-19 pandemic led to rapid changes in clinical service delivery across hospital systems nationally. Local realities and resources were key driving factors impacting workflow changes,*

including for pediatric consultation-liaison psychiatry service (PCLPS) providers. Objective: This study aims to describe the early changes implemented by 22 PCLPSs from the United States and Canada during

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*the COVID-19 pandemic. Understanding similarities and differences in adaptations made to PCLPS care delivery can inform best practices and future models of care. **Methods:** A 20-point survey relating to PCLPS changes during the COVID-19 pandemic was sent to professional listservs. Baseline hospital demographics, hospital and PCLPS workflow changes, and PCLPS experience were collected from March 20 to April 28, 2020, and from August 18 to September 10, 2020. Qualitative data were collected from responding sites. An exploratory thematic analysis approach was used to analyze the qualitative data that were not dependent on predetermined coding themes. Descriptive statistics were calculated using Microsoft Excel. **Results:** Twenty-two academic hospitals in the United States and Canada responded to the survey, with an average of 303 beds/hospital. Most respondents (18/22) were children's hospitals. Despite differences in regional impact of COVID-19 and resource availability, there was significant overlap in respondent experiences. Restricted visitation to one*

*caregiver, use of virtual rounding, ongoing trainee involvement, and an overall low number of COVID-positive pediatric patients were common. While there was variability in PCLPS care delivery occurring virtually versus in person, all respondents maintained some level of on-site presence. Technological limitations and pediatric provider preference led to increased on-site presence. **Conclusions:** To our knowledge, this is the first multicenter study exploring pandemic-related PCLPS changes in North America. Findings of this study demonstrate that PCLPSs rapidly adapted to COVID-19 realities. Common themes emerged that may serve as a model for future practice. However, important gaps in understanding their effectiveness and acceptability need to be addressed. This multisite survey highlights the importance of establishing consensus through national professional organizations to inform provider and hospital practices.*

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Key words: consultation-liaison psychiatry, pediatrics, COVID-19, pandemic.

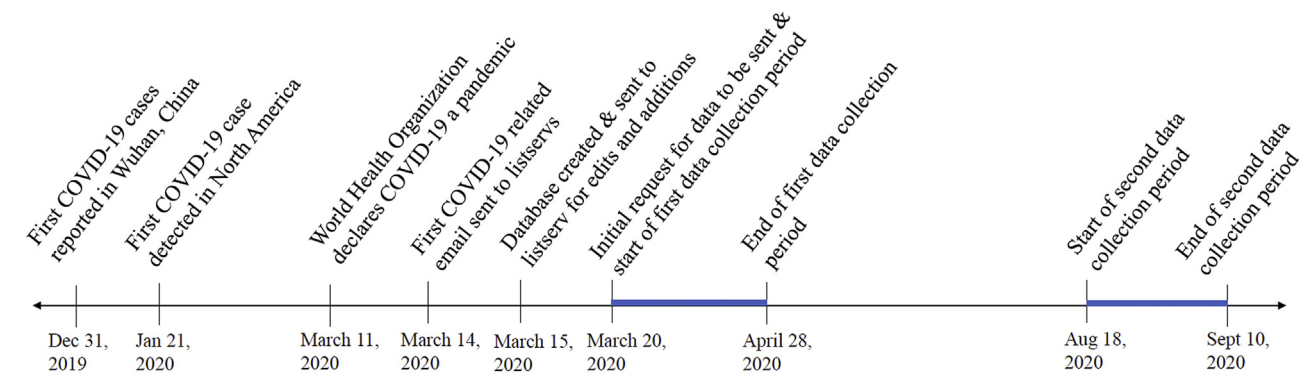
INTRODUCTION

The novel “severe acute respiratory syndrome coronavirus 2” has resulted in over 134 million cases, 2.9 million deaths, and significant morbidity globally in a year.¹ In North America, the United States (US) reported a 1-year total of >25 million cases with >410,000 deaths.¹ Canada reported a 1-year total of >747,000 cases with >19,000 deaths.² All Canadian provinces and US states have been affected by the pandemic, with variability and fluctuations in the number and nature of case presentations in different regions over time.^{2,3} The unprecedented challenge of responding to the pandemic had major impacts on daily living, social connectedness, finances, and feelings of personal safety^{4,5} leading to significant distress in patients, families, and providers with downstream effects on mental health.^{4–8} Caring for patients with COVID-19 placed a tremendous burden on health care infrastructure and delivery.⁵ Hospital systems had to respond to the dual demands of increased patient care needs while supporting provider and staff safety through workflow adjustments including greater leveraging of telehealth.^{8–10}

COVID-19 predominantly impacted adults with children (<18 years) accounting for ~10% of reported cases and ~260 deaths (~0.02%) in the US.^{11–16} Although more children may have asymptomatic infections, the full extent of these remains unknown.^{11,13–15} Symptomatic children generally experience milder disease, often have underlying physical illnesses, and less commonly require intensive care unit admissions.¹⁷ Emerging evidence suggests a multisystem inflammatory syndrome in children associated with COVID-19.^{17,18} There has been substantial psychological impact on children with disruptions in school and switching to virtual learning, social isolation, limited extracurricular activity, altered routines, fear for safety of loved ones and themselves, and feelings of pervasive uncertainty.^{4,19–21} Family stressors, parental job loss, financial uncertainty, limited childcare, and decreased access to supports and resources further impact distress in children.

Children with pre-existing mental health conditions are at higher risk for experiencing negative effects from the pandemic.⁵ Children with physical illnesses have higher rates of comorbid mental illness, including

FIGURE 1. Timeline of data collection.



an increased risk for suicide.^{22–24} The impact of COVID-19 on pediatric suicide is unknown, with mixed early data despite recent anecdotal reports of increases in news articles. Children experiencing mental health symptoms including suicidal ideation seek care in pediatric settings.^{25,26} Furthermore, stress can exacerbate physical illnesses^{27,28} and increase care utilization, including in pediatric hospital settings.

Early involvement of pediatric consultation-liaison psychiatry services (PCLPSs) can optimize psychiatric care, improve medical outcomes, and reduce health care costs.^{29,30} Effective PCLPS engagement is critical to address the significant burden of mental health morbidity during the pandemic. “Social distancing mandates” required hospitals and PCLPSs to adapt workflows to continue delivering care while ensuring provider and patient safety. Establishing the nature and effectiveness of these adaptations is an important exercise that may help inform future models of care and best practices. Changes made to single-center adult consultation-liaison (CL) services,^{31–37} a pediatric psychology CL service,³⁸ and a neonatal intensive care service³⁹ have been described. However, to our knowledge, this is the first multicenter study describing changes made to PCLPSs across North America. This study aims to describe the early changes implemented by 22 PCLPSs from the US and Canada during the COVID-19 pandemic.

METHODS

Data regarding hospital and PCLPS adaptations during the COVID-19 pandemic were compiled using the listservs of the Physically Ill Child and Emergency

Child Psychiatry committees of the American Academy of Child and Adolescent Psychiatry. These listservs together have 503 members representing 114 academic institutions where “a tertiary care hospital is organizationally and administratively integrated with a medical school.” The listservs provide a platform for PCLPS providers to disseminate information to and seek consultation and recommendations from other frontline clinicians. Permission was obtained from the listservs’ organizers to collate information provided through listserv communications. In addition, both listservs’ members were emailed to share the aim to consolidate information about current PCLPS practices during the COVID-19 pandemic (Figure 1).

A free response 20-item Excel spreadsheet was sent to both listservs (Appendix A). This survey was created based on a predetermined set of topics disseminated to all members of the listservs that was grouped into themes following discussion and consensus between members of the listservs. Given the unprecedented and evolving nature of the pandemic and lack of readily available validated tools to measure the impact of pandemics on mental health care delivery, the data points were created based on early clinical experiences during the COVID-19 pandemic and shared with the listservs for edits and additional items.

A request was made to participating individuals to send these data on March 20, 2020. One representative person from each of the 22/114 responding institutions provided the data requested. All responses received by April 28, 2020, were included. The same data points were sent a second time on August 18, 2020, to address the evolving nature of the pandemic, and respondents continued to provide data for a second time until

TABLE 1. Baseline Hospital Characteristics

Region	No. of hospitals	Median no. hospital beds (range)	Pediatric hospitals
West	6	270 (135–796)	6
Midwest	5	288 (230–811)	4
South	5	200 (130–332)	3
Northeast	4	163 (30–404)	3
Canada	2	250 (200–300)	2

September 10, 2020. Individual sites added or edited data longitudinally throughout the study period in a nonanonymized fashion. To be included in the study, respondents had to provide data at both time points. Respondents were asked to provide responses to as many data points as they were able to, yet given the rapidly changing times of the COVID-19 pandemic, respondents were not required to respond to all queries. Respondents gave permission for their information to be included in the final data set.

Data points regarding 4 aspects of PCLPS care delivery during the COVID-19 pandemic were collected: (1) baseline hospital demographics (i.e., number of hospital beds, restrictions for visitors), (2) hospital workflow changes, (3) PCLPS workflow changes, and (4) PCLPS experience during COVID-19. Aggregate experiences with no identifying patient information were reported. The University of California, San Francisco, Institutional Review Board determined this study was exempt from review and informed consent.

Respondents entered data directly into the Excel spreadsheet. During data analysis, a set of 6 authors reviewed the deidentified data in small groups and then as a larger group. Multiple authors were assigned to each thematic section to limit classification bias. Qualitative data were organized into discrete themes and topics generated based on early clinical experiences and feedback from contributing sites before data entry. Qualitative data consensus generation occurred through discussion, and in instances of uncertainty, respondents were asked to clarify and expand upon their responses. Any discrepancies in classification were reconciled through consensus gathering by these 6 individuals. In the final stages of manuscript preparation, all contributors reviewed the manuscript, to ensure accuracy of reported data.

Descriptive statistics, including frequencies, were calculated using Microsoft Excel. Geographical variations in regional cases, risks, resources, and practices that

might inform workflow adaptations due to COVID-19 were described when applicable. The widely used US Census Bureau's designated regions and divisions (West, Midwest, South, Northeast)⁴⁰ were used to classify the US hospitals' location for this study. Hospitals in Canada were considered their own single group.

RESULTS

Baseline Hospital Demographics

Twenty-two North American urban academic hospitals, 18/22 being freestanding children's hospitals, with an average of 303 pediatric beds, reported information (Table 1). Information was reported for pediatric inpatient units, intensive care units, and emergency departments. The state of California was most represented with 4 respondents, followed by the state of New York with 3.

Hospital Workflow Changes

- Visitation: Most respondents (21/22) noted bedside visitor restriction to one adult, typically a parent/caregiver. Six hospitals allowed 2 adult caregivers per patient over time. All hospitals required visitor screening before entry, and 20/22 required visitors to wear masks.
- Rounding: Of the sixteen respondents, 14 adopted a hybrid in-person and virtual rounding (often with medical teams being in-person and psychiatry virtual). Two hospitals maintained in-person rounding only. No regional trends or correlation to reported COVID cases was observed.
- Personal protective equipment (PPE): Three out of ten respondents noted initial PPE availability limitations. All ten reported universal surgical masking of all staff by the last reporting date.
- COVID numbers: Fifteen respondents shared COVID-19-positive patient numbers. Given the

evolving nature of the pandemic and staggered response time frame, one hospital reported numbers in March, 7 hospitals in April, 2 in May, and 5 in August. A majority saw less than 30 pediatric (<18 years) cases, with 9 seeing less than 5. Only 2 hospitals reported cumulative cases >100, with many of these cases being in >18 year olds.

PCLPS Workflow Changes

- a) Mental health screening: Nineteen respondents (19/22) reported that ten did not conduct mental health screenings and 9 screened for (1) suicide risk (8/9), (2) delirium (2/9), (3) aggression risk (2/9). These were a continuation of prepandemic practice with no new screening implemented due to COVID-19.
- b) PCLPS Staffing: All 22 respondents provided PCLPS staffing data. Twelve (12/22) had 1–2 PCLPS providers “on-site,” including faculty and trainees. Nine of these twelve also noted a decrease in the number of staff on-site, 8 used telehealth for visits, and 5 implemented a weekly rotation schedule including identifying back-up staff, if needed. The weekly rotation aimed to minimize individual risk and provide back up for the on-site staff. Other risk minimization strategies included only coming into the hospital when consulted, providing telehealth visits from nonclinical locations, and physical separation of on-site staff to minimize contact. Off-site staff members continued to work via telehealth. “On-site” included the hospital building itself, an office building on hospital campus, or home office located in close proximity to the hospital. One (1/22) respondent provided all services remotely with providers coming on-site for emergencies or clinical need. Nine (9/22) respondents did not indicate whether they had made any changes to staffing during the pandemic. No significant regional trends were noted.
- c) Utilization of telehealth: All reporting regions experienced varying degrees of telemedicine use in providing PCLPS (Table 2), with variable workflows driven by the COVID-19 status of the patient (Figure 2).
- d) Trainee involvement: In the Northeast, three (3/4) had trainees participating virtually while one (1/4) continued to have one child and adolescent

psychiatry (CAP) fellow in person. In the Midwest, three (3/5) continued to have one CAP fellow on service. One (1/5) had the fellow removed from on-site work while one (1/5) transitioned to having a fellow on-call. In the South, five (5/5) had the CAP fellow working remotely. In the West, four (4/6) had the CAP fellow remain on service in-person while one (1/6) reported the CAP fellow doing remote evaluations. In Canada, two (2/2) services had trainees remain on with reduced in-person interactions. Seven (7/22) reported medical students being off service. Six (6/22) reported that trainees from other disciplines (pediatrics, psychology, advance practice nursing) did not remain on-site. Two Canadian and one US-based PCLPS reported curricula development to address use of telehealth/workflow changes informed by COVID-19. Four US respondents distributed articles and presentations on the pandemic and mental health implications of COVID-19. Three US respondents also introduced mindfulness and stress-reduction education.

PCLPS Experience During COVID-19

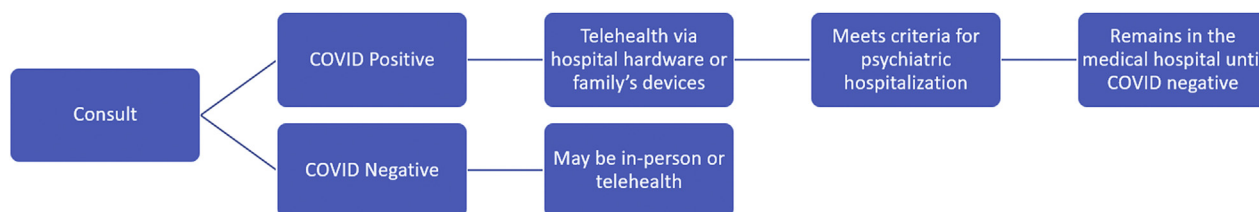
Respondents shared changes seen in consult volumes including those for COVID-19-positive patients, billing, documentation, and involvement in larger health system initiatives (Table 3). A majority (18) noted an initial decrease in PCLPS consultation volumes by as much as $\geq 50\%$. One-third noted a return to baseline PCLPS consult volume by September 2020. No significant regional trends were noted.

- a) Telepsychiatry implementation and its challenges (Table 2): Sixteen PCLPSs (16/22) described using telepsychiatry. Twelve (12/16) reported lack of or extremely limited availability of technology to support telepsychiatry services, while four (4/16) reported technology being available only for outpatients. Of note, five (5/16) shared that technological support for PCLPS expanded over time. Multiple technology platforms were used: WebEx, Zoom, Doximity, Epic, Cisco Jabber, FaceTime, Google Duo, Microsoft Teams, InTouch, and Avizia. One PCLPS used telephone only for remote consults. Of the 15 (15/22) respondents using video telepsychiatry, 5 used more than one technology platform.

TABLE 2. Telehealth Use and Its Reception

Regions	In-person versus telehealth	Hospital versus personal device	Reception to use of telehealth
Western US	<ul style="list-style-type: none"> • Four (4/6) reported primarily in-person consults. • One (1/6) reported predominant use of telehealth. • One (1/6) reported exclusively using telehealth. 	<ul style="list-style-type: none"> • Five (5/6) reported having access to software for telehealth. • Three (3/6) reported having hospital tablets (although limited) to use for telehealth. • Difficulty accessing hospital hardware or having staff to help facilitate was a common theme. 	<ul style="list-style-type: none"> • Four (4/6) reported that the Department of Psychiatry was receptive to using telehealth. • Two (2/6) reported that nonpsychiatry colleagues continued to request in-person visits.
Midwest US	<ul style="list-style-type: none"> • Three (3/5) reported primarily using telemedicine. 	<ul style="list-style-type: none"> • Three (3/5) reported having available software. • One (1/5) reported tablets being available on each floor and hardware being installed into patient's rooms. • One (1/5) reported limited hospital tablet available while one relied on family's personal devices. 	<ul style="list-style-type: none"> • Three (3/5) reported both Department of Psychiatry and hospital and Pediatrics being receptive to use of telehealth.
South US	<ul style="list-style-type: none"> • Three (3/5) reported a mixture of using telehealth and in-person visits. • Two (2/5) planned to reserve telehealth for COVID-positive patients. 	<ul style="list-style-type: none"> • Two (2/5) reported having available technology. • One (1/5) reported having tablets available in each room. • One (1/5) reported having nursing mobile devices. 	<ul style="list-style-type: none"> • None reported.
Northeast US	<ul style="list-style-type: none"> • Three (3/4) transitioned to telehealth for all consultations. • All 4 converted to telehealth for COVID-positive patients. 	<ul style="list-style-type: none"> • Two (2/4) reported having available technology. • One (1/4) had dedicated tablets for telehealth use. 	<ul style="list-style-type: none"> • None reported.
Canada	<ul style="list-style-type: none"> • One (1/2) reported using telehealth for consults. • One (1/2) reported mainly in-person consult with some telehealth use. 	<ul style="list-style-type: none"> • One (1/2) reported having available software and a hospital tablet available. 	<ul style="list-style-type: none"> • One (1/2) reported the Department of Psychiatry and hospital being receptive to use of telehealth for outpatients and some variability in acceptance for telehealth use in the inpatient setting among Pediatrics and Emergency Medicine colleagues

FIGURE 2. Most common workflow for using telehealth with COVID-positive patients.



b) Ethical challenges and considerations: Ten (10/22) PCLPS commented on ethical considerations during the pandemic. These pertained to virtual care (6/10), altered care or support (2/10), staff reaction or health (4/10), workload and staff burden (4/10), and trainee involvement in ongoing training and care delivery (2/

10). Concerns about access to PPE and infection risk drove some decisions in favor of virtual care over in-person care, which sometimes generated conflict. Referring teams were noted to limit or defer consultations to outpatient services. Staff and trainee anxiety and health status also contributed to favoring virtual

TABLE 3. Summary of Pediatric CL Clinical Experiences During COVID-19 Pandemic

Volume changes	<ul style="list-style-type: none"> • 18/22 sites had initial volume decrease <ul style="list-style-type: none"> ◦ 6/18 has $\geq 50\%$ decrease ◦ 6/18 returned to baseline volume by September 2020
COVID-positive patients	<ul style="list-style-type: none"> • 10/18 reporting sites did not see any COVID-positive patient consults • 8/18 reporting sites saw COVID-positive patient consults <ul style="list-style-type: none"> ◦ 4-5 COVID-positive patients/site • Reasons for consult: <ul style="list-style-type: none"> ◦ Suicidal ideation or attempts (50%) ◦ Depression (44%) ◦ Delirium (44%) ◦ Anxiety (19%)
Billing	<ul style="list-style-type: none"> • 9/22 responding sites noted changed to billing <ul style="list-style-type: none"> ◦ 6/9 addition of a telephonic or telepsychiatry modifier (6/9) ◦ 4/9 improved billing for telepsychiatry due to national executive order for telehealth parity. One site in Canada also reported improved billing. ◦ 3/9 decreased billing reimbursement • Other themes <ul style="list-style-type: none"> ◦ Not billing initial consult E&M codes ◦ Use of the 95 modifier ◦ Utilization of interprofessional consults for consults only involving chart review ◦ Significant time expended researching billing changes and educating providers
Documentation	<ul style="list-style-type: none"> • 12/22 responding sites indicated changes to documentation <ul style="list-style-type: none"> ◦ 12/12 reported whether the visit occurred in-person or virtually ◦ 5/12 reported inclusion of a telepsychiatry smart phrase ◦ 3/12 needed to justify need for televisit and document length of visit ◦ 2/12 documented specific consent for televisit from patient/family
Involvement in larger health system initiatives	<ul style="list-style-type: none"> • 11/22 sites described involvement in larger health system initiatives with increasing engagement over time in 9/11 sites <ul style="list-style-type: none"> ◦ 5/9 provided psychological support to other staff ◦ 2/9 provided assistance through staff support hotlines ◦ 2/9 developed mental health initiatives across the health system ◦ 2/9 shared mental health community resources and education with staff ◦ 2/9 developed health system-government agency collaborations

care. A preference for providing teleconsultation raised the issue of equitable access to technology and the balancing risk with colleagues who were required to provide in-person care. The impact of limiting the number and type of disciplines providing in-person care on the workload of staff designated to provide in-person care was also considered.

DISCUSSION

This study investigated PCLPS changes across the US and Canada during the early phase of the COVID-19 pandemic. The rapid onset and spread of the pandemic necessitated hospital systems to quickly adapt and create policies and workflows including on PCLPSs. Workflow updates were being made hourly in the early days with ongoing and frequent adjustments in the subsequent months to address the evolving local realities. Changing PPE availability (gowns, surgical

masks, N95 masks, and so on) and Centers for Disease Control and Prevention guidelines⁴¹ throughout the study period informed hospital and PCLPS policies. However, despite wide regional and temporal variability, institutions represented in the study demonstrated notable similarity in the changes made. Findings may guide future models of PCLPS administration, care delivery, and training. To our knowledge, this is the first multicenter study exploring PCLPS changes in North America during COVID-19.

The initial decline in consult volumes at the beginning of the pandemic was followed by a return to typical volumes over time, as has been reported in an adult CL study.³⁷ Akin to findings in adult CL settings,³³⁻³⁵ initial restrictions on number of bedside visitors, masking requirements for visitors, and remote rounding and teleconsultations were prevalent among PCLPS respondents. Early PPE shortages, changes in hospital space utilization, and evolving information on contagion

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risk may have informed the initial decrease in on-site PCLPS members given similar changes noted in other subspecialty areas.^{42,43} However, by the end of the study period, most reported adequate PPE availability.

Perhaps, one of the most significant developments for all PCLPSs has been the rapid adoption of teleconsultation. While some studies have reported on teleconsultation use by adult CL services before the pandemic,⁴⁴⁻⁴⁶ similar experience in PCLPS settings has not been reported. Despite all institutions reporting early challenges with technology availability, changes to documentation requirements, billing practices, and logistical issues related to service delivery, the PCLPS transition to teleconsultation has generally been successful. This was particularly true for patients served in hybrid in-person and virtual PCLPS models. Some use of teleconsultation will, in many cases, continue beyond the pandemic and may well be one of the "silver linings." CL psychiatrists have learned that while not optimal, services can be efficiently delivered by teleconsultation while maintaining high standards of care. It allowed expansion of family engagement from those members who are geographically distant. Lack of need for PPE use reduces its negative impact on rapport building and the interpretation of nonverbal communication.⁴⁷ There are also advantages for training and supervision by safely allowing trainee participation through teleconsultation as well as the opportunity for real-time feedback using the messaging functions of the video platforms.

Despite the effective use of teleconsultation, most PCLPSs, regardless of location, maintained a hybrid model with some variability in the type of requests addressed by the on-site providers ranging from routine consults, clinical need that cannot be met through teleconsultation, and emergent cases only. Our results indicated a wide variability in practice with the West region reporting a high number of on-site consultations despite easy access to teleconsultation. A lack of standardized guidelines from national organizations, variable access to teleconsultation software and hardware, contributed to this variability.

Respondents also noted that while psychiatry departments were supportive of teleconsultation, there were lower rates of support from pediatric care providers. This presents a challenge to liaison efforts with pediatric colleagues, in most cases, continuing to work in-person throughout the pandemic. Staff, in some institutions, also raised objections to having to facilitate access to technology with patients and family members

while the PCLPS providers worked remotely. Such experiences raise ethical questions about the choice of remaining on-site to meet the wishes of the consultees versus teleconsultation to enhance patient and CL provider safety. No overt concerns were raised about the quality of care delivered by PCLPS virtually or via a hybrid model, but this may also be an area where issues of equity in care delivery may arise. In-person consultation during the pandemic was especially challenging in the context of PPE shortages. Further challenges with access to hardware and the ability of guardians/patients to use technology are important considerations. Differing views on the threshold for providers to remain on-site have been reported in adult CL settings.^{31,48} Incorporating teleconsultation into in-person PCLPS care is a topic that warrants further study.

Similar variability existed in trainee involvement in on-site service provision. While teleconsultation provides a greater ability for trainees to continue their clinical training, it has limitations for learning liaison skills, as well as more nuanced clinical and mental status examination skills. Creating novel educational opportunities to address these gaps is important. Multiple competing responsibilities placed on PCLPSs may limit the ability for many to create educational resources. The ability to share resources through a centralized platform and/or national organization websites may help make this more broadly available. A small percentage of the respondents noted active involvement of PCLPS providers in hospital-level planning and execution. When involved, the PCLPS providers played an important role in staff support and education.

Although this is the first multicenter survey of changes made to PCLPSs due to the COVID-19 pandemic, there are clear limitations in its methodology. The study focused on practice change and subjective experience of PCLPSs at a limited number of urban academic hospital sites. Generalizability may be particularly limited for rural or community-based hospitals. The distressing nature of the pandemic, the need for quick turnaround of data in an ever-evolving reality, and the qualitative nature of the article inherently led to limitations in the study design and data obtained. Limited quantitative data were obtained to demonstrate change in consultation volume, hospital volume, and service utilization. More study is needed to capture quantitative changes to PCLPS practice in the setting of the pandemic.

Respondents represent ~20% of all members of the listservs. While the response rate falls toward the low end of typical response rates for nonincentivized studies,⁴⁹ this is likely due to listserv members having many competing interests for their time during the quickly evolving COVID-19 pandemic. During the time of data collection, both listservs were inundated with frequent emails from members seeking information on unprecedented cases and clinical challenges. It is also possible that experiences of those who chose to and were able to respond may be different from the experiences of those who did not respond.

The survey responses were collected through narrative descriptions in an iterative fashion over time. This was a decision made in real-time to reflect the lack of precedent and the evolving nature of the pandemic. Potential recall bias or limited information available from those responding to the survey should be considered. A larger study capturing a variety of settings and patient data from electronic medical records would build on what we present here. There were several areas of PCLPS experience (e.g., involvement in peer support of colleagues, impact on coping and mental wellness of CL provider, and so on) that were not adequately captured in this study and would be important to understand. The effectiveness of services rendered during the pandemic, patient acceptability and perception of teleconsultation, and pediatric consultee experience of services rendered should be systematically assessed in future studies. Future research should also seek to study how COVID-19 impacted the clinical care, lengths of stay, and readmissions rates for specific patient populations (e.g., eating disorders, somatic symptom, and related disorders) and how PCLPS changes might meet their needs.

Finally, professional organizations such as American Academy of Child and Adolescent Psychiatry and the Academy of Consultation-Liaison Psychiatry have played important roles in educating and supporting the

PCLPS providers so far. This study highlights the need for future consensus guidelines being developed by these professional organizations to inform practice and ensure safety of everyone involved.

CONCLUSION

PCLPSs across North America responded rapidly to provide care safely and efficiently during the evolving COVID-19 pandemic. Despite variable regional and local resource availability, there were significant similarities in the changes made that provide a basic standard of care with regard to pediatric psychiatric consultation. Rapid expansion of technology use enabled PCLPS providers to learn through virtual forums, share lessons rapidly through listservs, and provide care through teleconsultation while engaging trainees. Further research on the effectiveness and acceptability of pediatric teleconsultation to patients, care providers, trainees, and consultee is needed. As these changes become usual practice, important gaps still need to be addressed. This multisite survey highlights the need for consensus guidelines to inform decisions about on-site versus teleconsultation, adaptation to liaison activities for virtual presence, and generation of training materials for our new reality.

SUPPLEMENTARY DATA

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.jaclp.2021.05.003>.

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