Highlights
- Families were less engaged in pediatric and family services during the pandemic
- Flexible communication options and assistance with basic needs helped engagement
- Families reported using fewer resources during the pandemic compared to before
- Families rely heavily on their family and friends and pediatric health professionals
Family Engagement in Services during COVID-19:

A Mixed Methods Study of Caregiver and Staff Perspectives

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Key Words: Covid-19, Family engagement, Pediatrics, Caregiver involvement, Social Services

DECLARATIONS:

Consent to participate
This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Dartmouth-Hitchcock Institutional Review Board. Informed consent was obtained from all individual participants included in the study.

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ABSTRACT

Introduction: We examined changes in family engagement before vs. during the pandemic in pediatric and family services as well as perceived facilitators and barriers to family engagement.

Methods: We employed a mixed-method assessment of staff and caregiver perspectives related to pediatric and family medicine clinics and family resource centers in rural northern New England. We used narrative synthesis to analyze qualitative interviews (n=29) and descriptive statistics for quantitative surveys (n=108).

Results: Staff felt they were not doing as well at engaging families during vs. pre-pandemic, identifying numerous facilitators and barriers. We found differences in resources used by families before vs. during the pandemic. We identified discordant perspectives between caregivers and staff regarding how well clinics and centers were identifying and responding to family needs.

Discussion: Leaders in pediatrics, advanced practice nursing, and related fields can draw upon our findings to make decisions about what services and modalities they provide post-pandemic.
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The COVID-19 pandemic created unprecedented stressors to people across the globe. Emerging literature demonstrates uneven stressors for those in underprivileged and underserved groups (Czeisler et al., 2021a; Siegel & Mallow, 2021; Srivastava et al., 2021; van Dorn et al., 2020) and for families and women with children (Brown et al., 2020; Connor et al., 2020; Czeisler et al., 2021b; Stockman et al., 2021). People experienced increases in food, housing, and work instability, as well as physical illness due to COVID-19 and a multitude of mental health and substance use challenges associated with isolation and a decrease in protective factors (e.g., work, school, activities) (Czeisler et al., 2021a; Escalante et al., 2021). Caregivers have also contended with closures of schools and child-care centers, disruptions to healthy relationships and activities for their children (Vanderhout et al., 2020), and major social and mental health challenges in their children (Racine et al., 2021). Low-income caregivers and their children were especially impacted by financial instability, food and housing insecurity, and worries (Johnson et al., 2022; Siegel & Mallow, 2021).

When under stress, many families turn to natural supports such as family and friends, or to formal services. Yet many families quickly became disconnected physically (and sometimes emotionally) from loved ones during the pandemic. In addition, the pandemic forced pediatric health care and social service providers to implement restrictions and changes to service delivery. In-person visits were prohibited or reduced, and when in-person visits did return, it was often within a hybrid model of care using telehealth or telephone (Contreras et al., 2020; Ramtekkar et al., 2020).

Pediatric health and service providers also experienced major distress in their professional and personal lives during the pandemic. In the context of this pandemic, distressed health professionals exhibited lower levels of engagement at work (Bradley & Chachar, 2020;
Gómez-Salgado et al., 2021), likely impacting the families they serve. The “Great Resignation” era also caused major staff shortages that affected the quantity and quality of services (Cook, 2021).

Broadly speaking, engagement in formal health care and social services is associated with improved health outcomes, lower costs, and decreased demand for acute care (Coulter & Ellins, 2007; Greene et al., 2015). During the pandemic, many argued that engaging families into health care services was crucial to family and society wellness. Historically, health care providers are the most trusted source of information (Aboumatar, 2020). Agencies such as family resource centers or parent-child centers were also central to family wellness given their focus on social and economic needs.

Researchers have presented guidance and lessons learned about how to proactively engage patients in services during this period of heightened stress. Recommendations include consumer engagement in planning efforts, leveraging technology, building systems that can adapt rapidly, and attending to staff burnout and equity in services (Abid et al., 2020; Aboumatar, 2020; Hefner et al., 2021; Musialowski et al., 2021; Tolou-Shams et al., 2021). However, it is unclear how the rapid and overwhelming changes that accompanied the pandemic affected family engagement in formal services and whether and how service providers and agencies were able to shift their practices to identify and respond to family needs. Some aspects of service delivery, family needs, and family resource-seeking behaviors may continue post-pandemic, emphasizing the importance of helping to understand which aspects of service are working and which are not.

In this paper, we present findings from a mixed-methods, multi-informant assessment of both staff and caregiver perspectives related to family engagement with pediatric and family
medicine clinics and family resource centers/parent-child centers, two vital service sectors for families with young children (0-8 years). We collected data in the months following the onset of COVID-19 in a rural community in northern New England. We aimed to answer the following research questions:

- What does family engagement with clinics and centers look like now compared to pre-pandemic?
- What are the facilitators and barriers to family engagement?
- Where do families receive and prefer to receive their supports and resources, and did this change during the pandemic?
- How successful have clinics and centers been in identifying and responding to the needs of families during the pandemic? Are there discrepancies in provider and caregiver perspectives?

**Methods**

We utilized a multi-phased, mixed method design with caregivers and staff using purposive sampling techniques. We began in Phase 1 by conducting targeted individual or small group interviews with caregivers, pediatric and family medicine clinic staff and leaders (hereafter called clinic staff), and family resource center/parent-child center staff and leaders (hereafter called center staff) in the three-county community. Phase 1 interviews occurred in September or October of 2020. We used findings from our Phase 1 interviews to inform our survey questions in Phase 2. In Phase 2, we administered surveys to caregivers and clinic and center staff in the same community, albeit the community catchment area was expanded to five counties in an effort to increase sample size. Phase 2 survey administration occurred between
June and August 2021. All study activities and procedures were approved by the [insert] institutional review board.

**Community Context**

Our Phase 2 community sample spanned two full counties and three half-counties served by four partnering centers. This community includes more than 30 rural towns in New Hampshire and Vermont split by the Connecticut River, with town population sizes ranging from 300 to 13,500. The community hosts a large academic medical center, an Ivy League College, and several manufacturing businesses. The community is largely White non-Hispanic. Race and ethnicity of all ages varies slightly by town: 85-99% white and 83-98% English speaking, with 1-3% of the population Native American; 1-3% African American; 7-10% Asian; and 2-4% Hispanic (U.S. Census Bureau, 2021). Median family incomes range from low to high; 10 towns have annual median family incomes below $88,000, while 6 towns are considered affluent (U.S. Census Bureau, 2021). Both states are in the midst of a long-standing opioid epidemic (Brundage et al., 2019; Mattson et al., 2021).

Overall, our rural community experienced relatively low COVID-19 cases and deaths early on in the pandemic (during the period of data collection). Still, the community experienced strict restrictions. During part of the pandemic, Vermont’s governor mandated that, with few exceptions, no family visit another person or family, even outdoors. Further, Vermonters were not allowed into New Hampshire outside the bounds of essential work for certain periods. Schools and businesses abruptly shut down in the spring of 2020 with continued closures of summer camps and places of employment throughout summer of 2020. Clinical, social welfare, and mental health agencies largely shifted to virtual platforms, and many but not all remained virtual until the summer of 2021, with some mental health agencies continuing to be virtual into
winter 2021/2022. In the fall of 2020, most schools introduced hybrid learning. Throughout the pandemic, families experienced major child-care challenges due to staff shortages and virtual or hybrid schooling.

**Phase 1: Individual and small group interviews**

**Participants.** We interviewed 11 caregivers, 5 center staff, and 15 clinic staff (31 participants; 29 individual or small group interviews in total). Caregivers were over the age of 18 who had at least one child between ages 0-8 years and who lived in our catchment area. Caregivers were on average 29 years old and had 2 children (mostly infants/toddlers). Most caregivers (89%) were women, white non-Hispanic (89%), and had some college experience (63%).

Clinic staff included pediatric health providers, social workers, and behavioral health providers from six pediatric health clinics. Center staff included home visitors from two centers in our catchment area. We also interviewed leaders (directors, supervisors) within these agencies to ensure different perspectives. Clinic staff were on average 49 years old and all were white non-Hispanic. Most worked in family medicine (40%), had a graduate degree (65%), and were women (95%).

**Procedures.** We recruited caregivers through a purposive sampling method with two partner centers using snowball techniques. We asked center staff to identify and recruit families who displayed different levels of engagement (i.e., number of interactions) with the center. Two researchers (xxx and xxx) conducted the interviews using a semi-structured guide. They assessed various impacts of the pandemic on family’s functioning, the most pressing needs of families, whether and how families were engaging with services since the onset of the pandemic, the
barriers and facilitators to engagement, and whether clinics and centers were meeting the needs of families.

We recruited center and clinic staff through emails to clinic and staff leaders. Seventeen interviews were conducted individually, and three staff participants were interviewed together in the context of a small-group interview. Interviews lasted 45-60 minutes and were facilitated over the phone or Zoom. We conducted the interviews between September and October 2020.

**Data management and analyses.** Participants provided verbal consent. With permission, the researchers audio-recorded the interviews and these recordings were transcribed. Narratives were coded and analyzed using a mixed deductive and inductive approach (Bradley et al., 2007). We managed and analyzed the qualitative data using Dedoose software. Initial codes were developed from the research questions (deductive). During coding, new codes were added as they emerged from the data using an inductive approach (grounded theory) with constant comparison methods. A second coder reviewed the codebook and coded excerpts. Disagreements in code application were discussed and resolved by all authors.

**Phase 2: Quantitative surveys**

**Participants**

**Center and clinic staff.** Inclusion criteria included being over the age of 18 and working at 1 of the 8 local pediatric or family medicine clinics in the project’s catchment area, or 1 of 3 local centers in the catchment area. See **Table 1** for demographic information. Of our 51 staff survey respondents, 18 worked at a center and 32 at a clinic.

**Caregivers.** Inclusion criteria for caregivers included being over the age of 18, having at least one child between the ages of 0 to 8, and living in the catchment area of the project. See **Table 1** for demographic information. Of the 57 caregivers, 42 (74%) had contact with 1 of
8 local clinics; compared to 13 (23%) having contact with 1 of 4 local centers. Only those who said they had contact with the place responded to survey items regarding engagement.

[INSERT TABLE 1]

**Procedures**

**Clinic and center staff.** The clinic and staff survey was composed of questions asking about family engagement and practices in identification and response to need, particularly in response to the pandemic. We deployed the survey in April 2021 during a meeting with clinic and center staff, and asked leaders to send the survey link to staff members who could not attend the meeting. We followed up with subsequent emails targeting each agency to get staff participation.

**Caregivers.** The caregiver survey was composed of questions aligned with the staff survey assessing family engagement and identification and response to needs from clinics and centers, in addition to retrospective pre and post questions assessing use of resources before (retrospective pre) and since (post) COVID-19. Retrospective pre-test questions ask participants to reflect and report on prior behaviors and report current behaviors on the same survey instrument. This method is typically used for program evaluation (Pratt et al., 2000) but was used in this context as we were not able to get data reflecting actual behaviors before the pandemic. We deployed the caregiver survey between June and August 2021. We asked each of our participating clinics and centers to post the survey to their social media websites and to post flyers with QR codes in their waiting rooms. We posted the survey link to our community social media website and used a paid boost to recruit participants who were not actively engaged with a clinic or center. In addition, we integrated a research assistant into the large academic medical
center general pediatric clinic waiting area, with a tablet, to directly recruit caregivers. Fifteen of the 57 caregivers were recruited from the pediatric clinic’s waiting area.

**Data Management and Analyses**

We administered the surveys through a secure, web-based platform (Qualtrics). We used Microsoft Excel and SPSS to analyze descriptive data such as counts, percentages, and means, from both staff and caregiver surveys.

**RESULTS**

We present mixed-methods results for three of our four research questions, with qualitative data presented first, followed by quantitative. One research question (Where did caregivers get their supports and resources before and after the onset of the pandemic?) has only quantitative data to support the findings.

1) **How are families engaging?**

Qualitative interviews with clinic and center staff and caregivers revealed mixed perspectives on whether family engagement increased or decreased during the pandemic, with trends towards more people feeling engagement decreased. Some staff noted that the pandemic had created a crisis with heightened physical and mental health needs, and that those caregivers with heightened needs came to service providers in crisis. Others felt engagement stayed the same, and that largely, the same barriers and facilitators that helped or hindered engagement pre-pandemic were still relevant, just amplified during the pandemic. Still others perceived decreases in engagement, with the most common perceived reason being that families were simply trying to survive and could not participate in services.

We surveyed clinic and center staff about how well they felt their clinic or center was engaging new families and maintaining engagement of existing families both before and since...
COVID-19 (defined as after March 15, 2020). We did not have sufficient power to apply statistical analyses, but results indicate that more staff felt their clinic or center did better at engaging new or existing families before the pandemic compared to since the onset. Only 1 staff member reported that their clinic/center was doing better at engaging families since COVID (i.e., increased since COVID, “well” before and “very well” since COVID); 11 reported that their clinic/center was doing worse. Similarly, 1 participant reported their clinic/center was doing better at maintaining engagement since COVID, while 7 reported their clinic/center was doing worse. See Figure 1.

2) **What are the facilitators and barriers to family engagement?**

Qualitative interviews revealed that the pandemic had major but inconsistent impacts on engagement. For some caregivers, overwhelm associated with the pandemic led to increased engagement and seeking out of resources, while for others it led to withdrawal and isolation. See Table 2 for facilitator and barrier themes drawn from these interviews.

3) **Where did caregivers get their supports and resources before and after the onset of the pandemic?**

Table 3 displays caregiver responses to where they received supports and resources before vs. since the onset of the pandemic. With the exception of websites, which increased in use since the pandemic, and their child’s doctor, which largely stayed the same, all other resources decreased in use since the pandemic. Most caregivers reported using friends and family, both before and since the pandemic, followed by the child’s school or child-care program and their child’s doctor. The largest changes in use before vs. since the onset were observed in
the child’s after-school programs (41% decrease, 37% before and 22% after), centers (24% decrease, 25% before and 19% after), and social media (23% decrease, 43% before and 33% after), which were all more frequently used before the pandemic. Caregivers reported very little change in their use of the child’s doctor, and caregiver’s use of centers was infrequent both before and after the onset of the pandemic (though it decreased even further after).

[INSERT TABLE 3]

4) How are clinics and centers responding to family needs?

Qualitative themes from caregivers in terms of clinic responses to needs revealed that most caregivers felt clinics were readily responsive to their needs and questions, both related and unrelated to COVID-19. Caregivers also reported that it was helpful when clinic staff helped with school/child-care requirements, such as conducting quick COVID-19 testing. However, clinics were not always available for in-person needs.

Qualitative themes from caregivers regarding center responses to needs revealed that centers provided them with concrete supports (e.g., diapers), programming (e.g., caregiving groups), and resources (e.g., housing, state benefits, child-care). Multiple caregivers reported that center staff communicated frequently. However, it is important to note that we made intentional efforts to recruit caregivers through centers specifically, biasing the sample.

Qualitative themes from staff highlighted how staff were impacted by the same stressors experienced by the families they served, possibly for the first time “weathering the same storm” (though in different boats). These stressors inevitably had impacts on their capacity to provide services. For many, when combined with the higher family needs and higher caseloads and referrals, these extra burdens led to burnout. Stress related to taking care of their own children, and the uncertainty in their own personal and professional lives, worsened the problem. Our
interviews demonstrated mixed ways in which the pandemic affected staff capacity, fluctuating by center/clinic. Some staff reported spending more time triaging calls and formally coordinating work and care, limiting their time to provide other services, while others had more availability to provide services due to decreased travel time and more use of telehealth.

In our quantitative surveys to caregivers and staff, we asked how well clinics and centers were doing at both identifying and responding to various family needs. We also wanted to examine discrepancies between caregiver and staff perspectives, separated by clinic and center staff.

See Figure 2 for a display of caregiver vs. clinic staff responses. In general, there were large discrepancies between clinic staff and caregiver reports in terms of identifying and responding to family needs, with more clinic staff feeling they were doing well or very well compared to what caregivers felt, with the exception of identifying and responding to the mental health needs of kids ages 0 to 8 years. The two biggest discrepancies related to identification of needs were economic or financial support needs and mental health needs of caregivers. The two biggest discrepancies related to responding to needs were economic or financial support needs and social and recreational wellness needs.

We also identified differences in caregivers vs. center staff perspectives. In our survey, more center staff than caregivers reported that they were doing well or very well at identifying and responding to the needs of families, with the exception of identifying and responding to anxieties related to shut-downs and restrictions. The two biggest discrepancies related to identification of needs were the mental health needs of children ages 0 to 8 years and social or recreational wellness needs. The two biggest discrepancies related to responding to needs were
the mental health needs of children ages 0 to 8 and economic or financial support needs. See Figure 3.

**Figure 3.**

[INSERT FIGURE 3]

**DISCUSSION**

Family engagement in services was highly variable among families. Overall, center and clinic staff felt they were not doing as well at engaging new or existing families into pediatric health care and family resource services since the onset of the pandemic compared to before. Common themes related to facilitating family engagement included the provision of tangible resources and flexibility in communication and the modality of service delivery (e.g., telehealth). Major barriers included overwhelm and mental health problems impeding engagement in services, as well as the need to prioritize energy and time on basic needs. We identified differences in the frequency of various resources used by families (e.g., health care provider, schools, family/friends) before, compared to after, the onset of the pandemic. Family use of nearly all types of resources decreased, although some resources decreased more drastically than others (e.g., schools, child-care). We also exposed discordance between caregiver and staff perceptions of how well clinics and centers were doing at identifying and responding to various family needs. Compared to staff, caregivers felt clinics and centers were doing less well.

Our findings identified a drop in family engagement with clinic and center services following the onset of the pandemic. Agencies therefore had to quickly problem solve and experiment with various engagement techniques, some of which are likely here to stay. Our study contributes to a body of literature suggesting that flexible communication strategies (e.g., email, text) and flexibility in the modality of services provided (e.g., phone, videoconference, in person) will be desired post-pandemic (Abid et al., 2020; Aboumatar, 2020; Contreras et al.,
These shifts have major implications for payers to make telehealth or phone reimbursements permanent. Agency leaders will also need to work hard with their staff and families to decide when telephone or videoconference are not viable or effective options. Our study helps identify those circumstances. Families found phone and videoconference services less helpful when young children were present, when speaking about adult mental health, and when the visit needed “eyes on” a physical ailment. Others have presented similar nuances in the effectiveness of telehealth, particularly around pediatric health visits (Brophy, 2017; Cunningham et al., 2021; Curfman et al., 2021; Khoshrounejad et al., 2021; Traube et al., 2021).

Our findings suggest the need for tailored engagement strategies for families experiencing overwhelming stress. Our participants found proactive, preventative outreach to families and the provision of basic resources (e.g., diapers, link to economic supports) helpful. Participants also noted a need to level the [technological] playing field, particularly in rural communities like the one studied. It may also be important to formalize the distribution of resources so that when crises occur, an infrastructure exists to quickly get food, diapers, household items, and connection to financial services to families in need. Similar to other researchers (Gomez-Salgado et al., 2020), our study suggests that agency leaders need to be prepared to take care of staff during times of crises. Burnout is a major contributor to reduced quality of care, productivity, patient satisfaction, and staff health (Salyers et al., 2017; West et al., 2018). Leaders can take preventative or reactionary steps to mitigate the impact on staff members and services (Fessell & Cherniss, 2020; West et al., 2018).

Families may have experienced shifts in what resources they need and where they get them. As the pandemic draws out, what were once new ways of seeking resources may not
reverse. We identified only one resource domain that increased from pre- to post-pandemic (websites) and one that stayed approximately the same (reaching out to health care providers); all others decreased. A decrease in the use of resources may mean families were more self-sufficient or perhaps there were other resources families used that we did not ask about. Alternatively, families are experiencing compounding needs with reduced resources and doing with less.

Given the most frequent resource for caregivers before and after the onset of the pandemic was family and friends, it may be wise to deploy large community-wide public service announcements to help all community members understand healthy coping strategies and where families can find assistance. Caregivers continued to use health care providers as a frequent resource following the onset of the pandemic, highlighting the crucial role that clinics can offer to address holistic needs. Building social, mental health, and other resources into pediatric settings would likely benefit many, and there is a growing literature to support this integration (Clemente et al., 2021; Njoroge et al., 2016). Another clear finding is the need for schools and child-care settings to remain open given their crucial role in providing resources to caregivers. Despite their best efforts, virtual resources cannot compete with the benefits from in-person school and centers to children, families, and societies at large that depend upon working caregivers (Verlenden et al., 2021). Communities may also find success through the integration of social, economic, and health and mental health resources at schools and child-care centers, or family resource / parent child centers typically available to all families. In our current workforce shortage, federal, state, and local communities will need to invest in strategic staff hiring, retention incentives, and supports for these sectors.

We found discrepancies in caregiver and staff perceptions of how well clinics and centers were doing at identifying and responding to family needs. These results suggest that agencies
must frequently assess caregiver perceptions. As others have identified (Abid et al., 2021), we must fully engage family voices, not just at the level of identifying gaps, but also in the co-production of service delivery. Discrepancies may be highly variable across clinics and centers depending on each agency’s strengths and weaknesses. In our study, the biggest discrepancies in clinics were in their identification of economic needs and caregiver mental health needs, and their responses to economic needs and social and recreational wellness needs. For centers, the biggest discrepancies were in identifying the mental health needs of young children and their social and recreational needs, and their responses to the mental health needs of young children and economic needs. Examining discrepancies between an agency’s identification of needs compared to response to needs may also be fruitful. For example, in our sample (Figures 2 and 3), caregivers reported that clinics were better at identifying compared to responding to stress and anxiety related to shut-downs, and centers were better at identifying compared to responding to economic needs. Every agency does not need to be effective at responding to every need, but as a system of care in a community, these assessments can identify gaps and connect families to the right services. Our findings also highlight the difference between identifying and responding to needs and the possible family frustrations that could develop when a clinic or center, or system of care, fails to both identify and respond.

Limitations and Future Directions

Our study highlights findings from one rural community in northern New England with a homogenous sample. These findings need to be understood in that context. Our results may be generalizable to other rural communities with similar responses to the pandemic. However, localized assessments must drive local plans. Second, our two phases of data collection spanned separate phases of the pandemic. The first phase, which included the qualitative data, occurred in
fall 2020. The second phase occurred 6-9 months later, a relatively less stressful time with a temporary relaxation of some restrictions. Our quantitative data may therefore reflect less overwhelm and fear, and more open and available services. However, families were experiencing the myriad of challenges associated with the “Great Resignation” at that time (Cook, 2021), contributing to staff shortages and less access to many resources, adding context to our findings. Lastly, while we did use purposive sampling of parents for interviews and the resulting sample displayed differing levels of engagement, we did not specifically operationalize high and low engagement and were reliant upon the center staff to define that.

Future research could continue unpacking which modalities (e.g., phone, videoconference, in person) are best for which types of needs, and build care systems that can sustain flexible communication and modalities. Future research could also help us better understand how to identify and remedy discrepancies between caregiver and professional perspectives about the quality of services provided. Another promising line of practice and research is how to leverage the use of family and friends as effective resources for struggling families. Efforts to increase staff satisfaction and retention are also in dire need given the increased burnout experienced by staff combined with the rise in resignations. Finally, promoting the integration of holistic care into pediatric clinics, schools, child-care centers, and other places to “meet families where they are” continues to be an important pursuit.

Conclusions

As the COVID-19 pandemic draws on and evolves, pediatric health care and related providers have a multitude of lessons to learn about family engagement, family use of resources, and perceptions of care. Families will prefer certain engagement and care strategies beyond the pandemic. Families have now experienced new care modalities and a degree of flexibility in care
delivery that even 2 years ago, we might never have thought possible. Service leaders and payers will draw upon studies such as ours to make decisions about what services and modalities they continue to provide and under what circumstances.

Ethical Statement

DECLARATIONS:

Consent to participate

This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the XX Institutional Review Board. Informed consent was obtained from all individual participants included in the study.

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References

https://doi.org/10.7759/cureus.7048

https://doi.org/10.1097/QMH.0000000000000262


https://doi.org/10.1053/j.ackd.2016.12.003

https://doi.org/10.1016/j.chiabu.2020.104699


https://doi.org/10.1001/jama.2021.0100


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https://doi.org/10.1377/hlthaff.2014.0452


Figure 1. Center and clinic staff responses (n=28) to engagement of new and existing families before and since the pandemic

Engaging New Families

Before

Not at all Well: 2
Somewhat Well: 8
Well: 17
Very Well: 9

Since

Not at all Well: 4
Somewhat Well: 15
Well: 9
Very Well: 1

Maintaining Engagement of Existing Families

Before

Not at all Well: 3
Somewhat Well: 11
Well: 14
Very Well: 1

Since

Not at all Well: 4
Somewhat Well: 15
Well: 9
Very Well: 1
**Figure 2.** Percentage of caregiver (n=41) versus clinic staff (n=12) reporting that clinic staff are identifying and responding to family needs well or very well

<table>
<thead>
<tr>
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<th>Identification</th>
<th>Response</th>
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<tr>
<td>Mental health needs of kids 0 to 8</td>
<td>69%</td>
<td>83%</td>
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<tr>
<td>Mental health needs of parents</td>
<td>37%</td>
<td>75%</td>
</tr>
<tr>
<td>Social or recreational wellness of families</td>
<td>56%</td>
<td>83%</td>
</tr>
<tr>
<td>Economic supports or basic needs</td>
<td>49%</td>
<td>92%</td>
</tr>
<tr>
<td>Anxieties related to the COVID-19 virus</td>
<td>59%</td>
<td>83%</td>
</tr>
<tr>
<td>Anxieties related to shut downs/restrictions</td>
<td>54%</td>
<td>75%</td>
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</table>

**Key**
- Caregiver
- Staff
Figure 3. Percentage of caregiver (n=13) and center staff (n=16) reporting that center staff are identifying and responding to family needs well or very well.

Mental health needs of kids 0 to 8
- Caregiver: 62%, Staff: 93%
- Identification: 100%, Response: 62%

Mental health needs of parents
- Caregiver: 54%, Staff: 80%
- Identification: 77%, Response: 77%

Social or recreational wellness of families
- Caregiver: 38%, Staff: 73%

Economic supports or basic needs
- Caregiver: 83%, Staff: 94%
- Identification: 83%, Response: 100%

Anxieties related to the COVID-19 virus
- Caregiver: 77%, Staff: 87%
- Identification: 87%, Response: 80%

Anxieties related to shut downs/restrictions
- Caregiver: 87%, Staff: 92%
- Identification: 87%, Response: 80%–85%

Key
- Light Circle: Caregiver
- Dark Circle: Staff

Table:

<table>
<thead>
<tr>
<th>Category</th>
<th>Caregiver (%)</th>
<th>Staff (%)</th>
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<tr>
<td>Mental health needs of kids 0 to 8</td>
<td>62</td>
<td>93</td>
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<td>Mental health needs of parents</td>
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</tr>
<tr>
<td>Social or recreational wellness of families</td>
<td>38</td>
<td>73</td>
</tr>
<tr>
<td>Economic supports or basic needs</td>
<td>83</td>
<td>94</td>
</tr>
<tr>
<td>Anxieties related to the COVID-19 virus</td>
<td>77</td>
<td>87</td>
</tr>
<tr>
<td>Anxieties related to shut downs/restrictions</td>
<td>87</td>
<td>92</td>
</tr>
</tbody>
</table>
### Table 1. Demographics of caregiver and provider/staff survey respondents (n=108)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Staff</th>
<th>Caregiver</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Age in years</td>
<td>45.8 (11.8)</td>
<td>35.7 (5.4)</td>
</tr>
<tr>
<td>Years in field</td>
<td>15.8 (11.5)</td>
<td>-</td>
</tr>
<tr>
<td>Number of Children</td>
<td>2.0 (1.1)</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Setting</th>
<th>Count (%)</th>
<th>Count (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinic</td>
<td>17 (33.3%)</td>
<td>-</td>
</tr>
<tr>
<td>FRC</td>
<td>34 (66.7%)</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Role</th>
<th>Count (%)</th>
<th>Count (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Service Providers</td>
<td>24 (47.1%)</td>
<td>-</td>
</tr>
<tr>
<td>DSP/Supervisors</td>
<td>6 (11.8%)</td>
<td>-</td>
</tr>
<tr>
<td>Supervisors</td>
<td>10 (19.6%)</td>
<td>-</td>
</tr>
<tr>
<td>DSP/Administrative Staff</td>
<td>1 (2.0%)</td>
<td>-</td>
</tr>
<tr>
<td>Administrative Staff</td>
<td>10 (19.6%)</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ages work with*</th>
<th>Count (%)</th>
<th>Count (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3 years</td>
<td>24 (47.1%)</td>
<td>-</td>
</tr>
<tr>
<td>4-6 years</td>
<td>16 (31.4%)</td>
<td>-</td>
</tr>
<tr>
<td>7-11 years</td>
<td>14 (27.5%)</td>
<td>-</td>
</tr>
<tr>
<td>12-17 years</td>
<td>14 (27.5%)</td>
<td>-</td>
</tr>
<tr>
<td>18-21 years</td>
<td>17 (33.3%)</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Child Age*</th>
<th>Count (%)</th>
<th>Count (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant/Toddler</td>
<td>17 (29.8%)</td>
<td>-</td>
</tr>
<tr>
<td>Preschool (ages 3 - 5)</td>
<td>15 (26.3%)</td>
<td>-</td>
</tr>
<tr>
<td>Kindergarten</td>
<td>12 (21.1%)</td>
<td>-</td>
</tr>
<tr>
<td>Lower school-age (6 - 8)</td>
<td>28 (49.1%)</td>
<td>-</td>
</tr>
<tr>
<td>Upper school-age (9 - 12)</td>
<td>9 (15.8%)</td>
<td>-</td>
</tr>
<tr>
<td>Teenage</td>
<td>10 (17.5%)</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Count (%)</th>
<th>Count (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school</td>
<td>0 (0%)</td>
<td>3 (5.3%)</td>
</tr>
<tr>
<td>HS diploma/GED</td>
<td>8 (14.0%)</td>
<td>-</td>
</tr>
<tr>
<td>Some college</td>
<td>9 (15.8%)</td>
<td>-</td>
</tr>
<tr>
<td>4-year college degree</td>
<td>18 (31.6%)</td>
<td>-</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>13 (22.8%)</td>
<td>-</td>
</tr>
<tr>
<td>Not specified</td>
<td>6 (10.5%)</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count (%)</th>
<th>Count (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>11 (19.3%)</td>
<td>-</td>
</tr>
<tr>
<td>Female</td>
<td>39 (68.4%)</td>
<td>-</td>
</tr>
<tr>
<td>Not specified</td>
<td>7 (12.3%)</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race/Ethnicity*</th>
<th>Count (%)</th>
<th>Count (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaska Native</td>
<td>4 (7.0%)</td>
<td>-</td>
</tr>
<tr>
<td>Asian</td>
<td>2 (3.5%)</td>
<td>-</td>
</tr>
<tr>
<td>Black/African American</td>
<td>1 (1.8%)</td>
<td>-</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>3 (5.3%)</td>
<td>-</td>
</tr>
<tr>
<td>Middle Eastern/North African</td>
<td>1 (1.8%)</td>
<td>-</td>
</tr>
<tr>
<td>Native Hawaiian/Pacific Islander</td>
<td>1 (1.8%)</td>
<td>-</td>
</tr>
</tbody>
</table>
*Participants could select more than one option. M= mean; SD= standard deviation; DSP= Direct Service Provider.

Table 2. Caregiver and Staff Perceptions of Facilitators and Barriers to Family Engagement

<table>
<thead>
<tr>
<th>Facilitators</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing Resources</td>
<td>Caregiver Mental Health and Feelings of Being Overwhelmed</td>
</tr>
<tr>
<td>- Provision of resources such as food, caregiving resources/ classes, journaling/ reading groups and recorded books, phones, school supplies, social supports i.e., playgrounds, and access to social workers</td>
<td>- Fewer services available, increase in family stress, limited access to social and community supports (e.g., schools) to identify when needs arise</td>
</tr>
<tr>
<td>Families Increased their Reporting of Needs</td>
<td>Priority towards Concrete Needs</td>
</tr>
<tr>
<td>- Families more willing to communicate needs of children during pandemic</td>
<td>- Inconsistent access to food, income, housing, making it difficult for families to engage with clinicians when basic needs are not met</td>
</tr>
<tr>
<td>Flexible Communication</td>
<td>Technology/Telehealth Issues</td>
</tr>
<tr>
<td>- Staff accessible by email, text, phone, in-person, or virtually</td>
<td>- Telehealth: difficulty in presenting physical issues (i.e., rash), physical/speech therapy, young children present, for some, hesitancy to discuss social or emotional concerns, difficulty in making personal connections and in clinicians to perceive nonverbal cues</td>
</tr>
<tr>
<td>Flexibility in Modality for Visits</td>
<td>- Technology: Poor internet connection, technical issues (logging on, setting up calls), lack of access to phones, computers, internet</td>
</tr>
<tr>
<td>- Flexibility in offering telehealth, in-person, or phone visits</td>
<td>Transportation</td>
</tr>
<tr>
<td>Collaborating and Coordinating Care</td>
<td>- Lack of transportation and hesitancy to use public transport with children due to COVID-19</td>
</tr>
<tr>
<td>- Assistance with screenings, contacting care providers, resolving technology issues, coordinating access to mental health resources, and providing warm hand offs</td>
<td>Childcare</td>
</tr>
<tr>
<td>Strong Relationships with Families</td>
<td>- Caregivers overwhelmed by childcare/ school needs making it difficult for staff to implement services</td>
</tr>
<tr>
<td>- Valued rapport building and connecting with families</td>
<td>Preventative Outreach</td>
</tr>
</tbody>
</table>

White 26 (51.0%) 44 (77.2%)  
Not specified 25 (49.0%) 5 (8.8%)
- Staff made extra efforts to reach out to families proactively to prevent crises

Effective Ways to Structure Visits
Structured visits reduced the need of follow-ups, “Warm up” pediatric visits by providing a book to child prior to visit

Limited Time/ Resources
- COVID 19 restrictions decrease availability at clinics, making it difficult for caregivers to connect with staff

Table 3. Caregiver (n=50) reports of where they got their supports and resources before vs. after the onset of the pandemic

<table>
<thead>
<tr>
<th></th>
<th>Before Pandemic</th>
<th>Since Pandemic</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child’s Doctor</td>
<td>56%</td>
<td>54%</td>
<td>-4%</td>
</tr>
<tr>
<td>FRC/PCC Center</td>
<td>25%</td>
<td>19%</td>
<td>-24%</td>
</tr>
<tr>
<td>Child’s School or Child Care Program</td>
<td>64%</td>
<td>51%</td>
<td>-20%</td>
</tr>
<tr>
<td>After School Program/ Enrichment Programming</td>
<td>37%</td>
<td>22%</td>
<td>-41%</td>
</tr>
<tr>
<td>Social Media</td>
<td>43%</td>
<td>33%</td>
<td>-23%</td>
</tr>
<tr>
<td>Websites</td>
<td>40%</td>
<td>48%</td>
<td>20%</td>
</tr>
<tr>
<td>Friends and Family</td>
<td>86%</td>
<td>76%</td>
<td>-12%</td>
</tr>
</tbody>
</table>