A Programmatic Study: Parents as Teachers and University of Southern California Virtual Home Visiting Pilot

An innovative virtual home visiting pilot identifies challenges to virtual service delivery, and discovers solutions for effective virtual home visits, screenings, and group connections, with beneficial outcomes for families.

The need: Due to a variety of obstacles, hard-to-reach, vulnerable, and underserved families are less likely to access and benefit from on-ground home visiting services.

The solution: Adapt traditional, on-ground service delivery for virtual home visits with families.

The benefit: Virtual home visiting services offer the potential for achieving PAT model outcomes with previously hard-to-reach children and families.

Introduction

Parents as Teachers (PAT) is a family-centered, results-driven approach to supporting young children and families, particularly those who are overburdened and underserved. PAT home visitors work closely with families to build a trusting relationship, and to address critical parenting issues and behaviors that promote protective factors. For 35 years, PAT trained professionals have promoted the healthy development and well-being of children and families right in their homes.

Harnessing the potential of technology is an essential element of bringing home visiting services to scale. PAT has prototyped a virtual method to deliver the four components of its evidence-based model—visits, groups, screening, and resourcing—through an interactive video conferencing (IVC) platform. Because this virtual approach is guided by a theory of change that is very similar to the on-ground model, the expectation was that it would result in program outcomes comparable to those produced through traditional on-ground service delivery, though some adaptations to processes and protocols would be required.

In launching an innovative virtual home visiting program, this initiative was able to gather invaluable data—including family and provider feedback—around the challenges, successes, and strategies that increased the effectiveness of virtual service delivery. These data, presented below, have informed the development of the guidance and resources that are now available to professionals serving families virtually.

Parents as Teachers' Intended Outcomes

The Parents as Teachers home visiting model meets the evidence-based criteria of the Maternal, Infant, Early Childhood Home Visiting program (MIECHV). Rigorous research has demonstrated the impact of the four-component PAT model within four primary goal areas:

- Increased children's school readiness and success
- Prevention of child abuse and neglect
- Increased parent knowledge of early childhood development and improved parenting practices
- Early detection of developmental delays and health issues

Home visiting is an approach used to address many complex challenges faced by states in health, mental health, early education, and child protection systems. Despite increased state and federal investment in recent years, large gaps in services continue to exist.

In 2016, the pilot project conducted by Parents as Teachers National Center and University of Southern California (USC) Suzanne Dworak-Peck School of Social Work recruited interns, primarily graduate students in social work, and trained them as certified parent educators who delivered parent education and support services via a telehealth platform. Between 2016 and 2019, this affiliate program completed over 1,774 visits, 598 screenings/assessments, 331 resources/referrals, and 47 group connections with families in California and Missouri.

Preliminary findings from the Parents as Teachers @ USC Telehealth affiliate indicate that Parents as Teachers model components can be effectively delivered via a virtual delivery platform.

Program methodologies, results, and identified challenges

Family engagement and recruitment

Methodology: Parents as Teachers @ USC Telehealth established on-ground community partners and launched a social media campaign to recruit families.

Results: 42% of families who expressed interest in learning more about the program located the program via social media. Of families who enrolled, 27% learned about the program through social media and 20% of other referrals came from the Los Angeles Best Babies Network and hospitals.

Identified challenges: It can take several attempts to connect with families to complete enrollment. Our experience is that connecting with families required at least six outreach attempts when the referral came from a community partner. Often, families were more responsive when outreach was conducted by email.

Training, supervision, and curriculum

Methodology: PAT developed supplemental training specific to both virtual service delivery as well as virtual supervision. Parent educators and supervisors completed these in addition to Foundational and Model training. Parents were offered access to parenting information and resources via a website portal. A two-tiered approach to supervision was adopted for parent educators, which included one-on-one virtual reflective supervision with a direct supervisor, as well as weekly virtual group supervision sessions.

Results: In 36 months, 27 parent educators were trained in virtual home visitation and provided services to families in this modality.

Identified challenges: Training costs and provider transitions proved burdensome for the program and families, so minimizing staff turnover proved to be a key factor. The first year of program implementation, the program hired advanced standing interns for a 6-month internship, later adapting policy to select interns who could provide services within a 12-month internship program. In the second and third years of the program, families assigned to a parent educator frequently stayed in services until their parent educator's internship concluded.

Virtual personal visits

Methodology: Initially, virtual personal visits were scheduled with families bi-monthly (every other week). In order to achieve the desired number of visits per year, parent educators adapted the scheduling of visits from the initial bi-monthly frequency, to weekly visits; this accommodated lower attendance rates (see below) while still allowing the program to meet its required number of yearly visits per family. After completing the second virtual visit, families received a "parent kit" consisting of books, puzzles, games, blocks, and balls; parents also received, via email, a packet of reference materials from the curriculum. This kit provided materials for parent-child activities, and served as an incentive for program participation.

Results: Results showed that families attended approximately 50% of scheduled visits. Most families engaged in an average of 10-12 sessions over 5-6 months of consecutive service; many participated in services for over a year and switched parent educators. All parts of a personal visit were completed and documented. During interviews, parent educators described the reliance on coaching skills such as goal setting and motivational interviewing strategies. They also reported that having materials similar to those that families had (those provided in the parent kit) provided the parent educator the ability to share ideas with parents, coach, and prompt interest a non-verbal manner, increasing parent-child engagement during visits.

Identified Challenges: Lower attendance rates were likely due to operating in a telehealth clinic, which did not allow parent educators to contact families using a known phone number.

Virtual screenings and referrals

Methodology: Parent educators successfully facilitated child development, family functioning, mental health, child maltreatment, and intimate partner violence screenings, all of which were administered virtually.

Results:
- Parent educators provided 264 connections to community resources to families.
- Out of 287 depression screenings, there were 17 positive screenings. 10 of the parents who screened positive received telemental health services.
- 80% of children received a developmental and health screening within 90 days of enrollment.
- Developmental concern/delays were identified in 62.5% of the children screened.
- 53.3% of children received a referral following a positive screen.
- 25% of those children who received a referral went on to receive services, based on further evaluation.

Identified Challenges: Having enough time to complete screening and assessments during personal visits can be challenging. If the family has a pressing concern, it can take precedence over completing screenings. Some possible strategies to ensure that screenings are completed on time are to schedule specific appointments to focus on assessments, or to create digital surveys that can be emailed to parents for completion independently (which should only be done if the screening tool is designed for the parent to complete independently). Parent educator interviews and observations of their screenings revealed that, in order to motivate a parent to complete a screening, parents need clarity about the purpose of the screening and the value of the screening results to the family.

In order to effectively provide referrals to families, parent educators and supervisors needed to become increasingly familiar with the referral system that existed within the communities they served; this was challenging as it was often contingent on parent educators' abilities to educate themselves about the referral system in their families' communities remotely, as families and parent educators did not always live in the same geographical areas.

Improvements in parenting through group connections and personal visits

Methodology: PAT successfully engaged families in virtual group sessions as well as virtual personal visits as a way to transmit knowledge of parenting and child development and practice new skills. Group connections lasted approximately one hour. Parent educators discussed the content and rationale for each group connection with families before the event.

Programs often recruited and hosted experts from a variety of fields to share information on topics related to child development and health with parents during group connections. Parent educators then facilitated conversations with parents following the expert's presentation. In the parent-child group format, families were able to observe and learn from the interactions of others.

Results:

Overall, the majority of families receiving services reported satisfaction with services.

- 78% of participants indicated that the activities within individual and group sessions strengthened their relationship with their child.
- 86% of participants indicated that their parent educator encouraged them to read books to their child.
- 91% of participants felt the program increased their understanding of child development.
- 96% of participants felt that their parent educator identified their family's strengths.
- 87% of participants felt motivated to try new parenting strategies.
- 65% of the participants said they felt less stressed because of the program.

Identified Challenges: There was wide variation in parent educators' confidence in facilitating and promoting group connections, which led to a fluctuation in attendance results, depending on the cohort.

Depending on the videoconferencing platform used, there were also limitations to the number of people allowed to participate in a group connection at times. Pre-registration for group connections can assist the parent educator in planning. Additionally, offering incentives for participation may encourage families to join. For example, if the group connection focuses on dental care, providing each family with a toothbrush for attending can be a nice incentive.

Program Learnings and Considerations

Collaboration

Learnings: Through the partnership between a national nonprofit and a university, this project acquired national visibility; this greatly facilitated access to the level of resources and talent often needed to implement an innovative program of this scale.

Considerations: Any collaboration can have challenges as organizations may have competing or different goals, partnership expectations, and resources. Having ongoing dialogue between partners about overall and intermediary goals, task allocation, and progress are important steps for optimal partnership.

Telehealth clinic

Learnings: Offering an evidence-based home visiting model while operating in a telehealth clinic assisted in establishing a standard of practice.

Considerations: The most challenging aspect of telehealth operations included outreach to families referred by other agencies and attendance at appointments. Often families had difficulty envisioning what they were signing up for as the program was atypical in the parent training and support system. When parent educators called to schedule appointments, families could be hard to contact, or had forgotten that they had expressed interest in joining the program. Because the intervention was preventive in nature, families frequently did not prioritize appointments. Attendance also proved challenging because clients would forget to turn on their computers and log in. Having a program website with photos of the parent educators and a personal visit demonstration video, and scheduling routine, weekly appointments helped families remember to attend.

Staff and Professional Development

Learnings: An important practice over the course of the pilot included the refinement of training and supervision methods every quarter, as interns were replaced. On average it took at least 120 hours of training (80 in telehealth and 40 in Parents as Teachers Curriculum and Model) to ready a parent educator for service delivery.

The key element that assisted parent educators in translating training to practice was access to a highly-operationalized curriculum that included templates for the first eight meetings with families. Parent educators remarked that knowing that they could easily access a supervisor using the same telehealth platform they utilized with families and receive instant response was important. Additionally, the parent educators relied heavily on their weekly group supervision and their twice monthly reflective supervision with their direct supervisor as an opportunity to troubleshoot, plan, and feel supported. Equally important was the parent educators' ability to confer with their peer colleagues formally, in group supervision, and informally, through direct communication.

Despite experiencing challenges related to the clinic operations and technology, parent educators reported high levels of comfort and satisfaction with delivering parent education and support services via a telehealth platform. The benefits they derived from the intensive training, robust curriculum, and supervision received outweighed the challenges experienced delivering services. Parent educators reported personal satisfaction and growth from working with families. They also noted that any preconceived concerns about the barriers to using telehealth were unfounded, and they were able to make real connections with families. At times, using a telehealth platform allowed them to tap into under-utilized strategies, such as coaching, active listening strategies,

reframing content, asking powerful questions, and responsive paraphrasing—all of which constitute advanced partnering practices. Finally, parent educators noted that much of their satisfaction came from knowing that they were providing a service that families would otherwise not be able to access.

Considerations: Despite training, parent educators still felt trepidation when service delivery began. They noted that it was difficult to know what to expect during actual visits (as compared to what was practiced during training). Others expressed the desire for additional opportunity to practice prior to meeting with families. A method was created to support readiness by using group supervision to role play visits and provide feedback.

Another challenging element of the operational structure was that the providers worked from their home offices. While this can be a welcome alternative to many parent educators, some found the lack of distinction between work and home to be a difficult transition.

Child Screening/Assessment

Learnings: Parents felt that the overall screening experience had great value for them as a parent. They noted that the screening boosted their confidence in their parenting skills, provided reassurance and made parenting easier, and was generally helpful. Assessment and screening in the virtual platform were found to be as impactful as on-ground screening, with concerns identified and referrals made—all of which results in families receiving services.

The completion rate of virtual screenings and assessments throughout the pilot compelled and motivated model developers to create innovative and adaptive alternatives to traditional, on-ground screening; it also led to more general discoveries about the screening process, with implications applicable to both virtual and on-ground screenings. The project considered methods to be able to use the screening or assessment tool, within fidelity guidelines and professional practice, in order to facilitate the completion of the screening.

Parent educators offered parents options for how to complete the screening or assessment; some of these options included: the parent educator reading the questions and recording the answers; the parent reading the questions and sharing answers with the parent educator; and providing a secure electronic survey. Parents who were unfamiliar with electronic versions of screening and assessments occasionally needed additional support in using the survey links. Explaining the options for how to use each tool, and how the screening results are used and stored, empowered parents to determine the best method for how to use the tool. Other online tools were also considered for screening options; however, the cost did not align with budget allocations.

By empowering parents to complete the Ages and Stages Questionnaire-3 and Ages and Stages Social-Emotional Questionnaire independently, this program identified a potential home visiting efficiency. This allows the parent educator to increase time spent dialoguing with the parent about the screening results and developing a parent action plan.

In an effort to optimize professional skills, a standard inventory of professional behaviors and skills when facilitating a screening or assessment was developed.

This inventory was informed by:

> conducting a literature review;

> observing of newly-trained parent educators conducting screenings;

> surveying newly-trained parent educators;

> sharing data with supervisors;

> supervisors providing responsive guidance informed by the data;

> parent educators self-assessing their behaviors by using a skills inventory tool.

This comprehensive approach resulted in the *Provider Screening or Assessment Skills and Behaviors Inventory* tool, as well as the web-based training, *Partnering With Parents Through Screening and Assessment.*

Considerations: Literature reviews revealed little information on parents' experiences during screening*.

From parent interviews, some common concerns were identified; these included that some parents wanted to have more frequent assessments and feedback, wanted to be better prepared for the screening event, and felt that the hearing and vision screening were sometimes stressful and inaccurate.

* for a full list of works consulted, please see references included in the web-based training,
  Partnering With Parents Through Screening and Assessment.

Virtual Service Delivery: Technology and Software

Learnings: By identifying key elements such as software, hardware, behaviors, and environmental design, the program was able to develop suggestions that positively impact family engagement during virtual visits (equipment placement, noise, lighting, confidentiality, etc.). Families showed a strong relational alliance to their parent educator and often solved technical problems such as the positioning of their devices.

Considerations:. The technological challenges noted by the providers included stability of the internet connection and reliability of the devices utilized by the families. The parent educators encountered unstable internet connections on the family's end that made the video feed choppy or the person difficult to hear. Further, at the start of the program, families required significant coaching related to set up and position of devices. To assist families who did not have access to a computer or internet, the program loaned iPads with a data plan attached to them. To save money, refurbished iPads were initially provided to families but they malfunctioned frequently, and ultimately had to be replaced with new tablets. Lastly, the cell phone provider used to provide a data plan did not have adequate service range in all areas where clients lived.

The positioning of the device within the family's home can support or interfere with the visitor's ability to observe parent-child interactions and the family's environment. Successful positioning required intentional communication and parent-driven solutions.

Training and Implementation support

Learnings: During the initial stages of the pilot, PAT Model Essential Requirements were reviewed and technical assistance was adapted to support the launching and scaling of virtual implementation. Prior to training parent educators, strategies were identified for augmenting training and professional development, and included virtual coaching strategies that sustain an ongoing parent educator-family relationship. To support the tracking of useful implementation data, systems were put in place to document workflows, technology tools, applications, social media and website features required for operation. Over time, we formulated adapted policies and procedures unique to virtual implementation by merging telehealth privacy and security guidance with Parents as Teachers guidance.

Considerations: Virtual Foundational and Model Implementation trainings for interns were not available. On-ground local or regional trainings were not always readily available either, which meant that time and funding were needed for parent educators to travel to the Parents as Teachers National Center in St. Louis, Missouri for initial PAT Model Implementation training. Weekly technical assistance, which was available virtually from a liaison at Parents as Teachers National Center, ensured fidelity to model implementation.

Publicity

Learnings: Through a multi-pronged approach, PAT/USC built national presence through social media, conference presentations, news articles, and a website. The article authored by Parents as Teachers @ USC Telehealth, "Advancing Home Based Parenting Programs through the Use of Telehealth Technology" was published in the peer-reviewed, *Journal of Child and Family Studies*. Additional manuscripts have been drafted for publication on the following topics:

> Findings related to reading the workforce for virtual service delivery; working title: "Telehealth Training and Provider Experience of Delivering Parent Training and Support"; Target Journal: *Journal of Telemedicine and Telecare*

> Findings related to case management strategies, clinical strategies, family goals, and termination; working title: *"Family Centered Strategies for Implementation of Telehealth Parenting Interventions"*

> Findings related to parent's screening experience, provider screening experience, and provider screening strategies

Considerations: Sharing findings in research literature, through professional organizations and through community outlets, is important for bringing recognition to this work. Having access to coaching on social entrepreneurship to shape our pitch, and guidance from a media relations professional to disseminate stories to various news outlets, were both critical to publicity efforts. Publishing research findings in scholarly outlets is a lengthy process that often takes 18 months or more. This delay can be problematic as organizations request research findings quickly. We recommend having a slide deck of findings that can be distributed to requesting parties while publications are embargoed.

Testimonials

Families reported satisfaction with Parents as Teachers @ USC Telehealth:

– *"I've recommended this program to moms-to-be, moms with infants, and I told my therapist to refer a pregnant mom client of hers. I really like this program; it's been nothing but positive. And it's voluntary but you still get quality, which isn't always the case with a lot of things."*

– *"It's convenient. My parent educator is awesome, she's super helpful, very kind yet professional. I really like this program. And with babies, sometimes things don't work out so I can't meet, and she's always understanding of my situation and I don't feel obligated. Which is really nice, because we keep having sessions because it fits into our schedule and we gain something out of the sessions. Thank you!"*

Parent educators saw family growth:

- *"In my time as a parent educator, I have worked with several families that have increased their parent-child interaction and addressed developmental delays. I have one family in particular that started the program having started other developmental growth programs in their community as their daughter had significant delays. The mother was emotionally drained and frustrated with the lack of growth in her daughter's developmental milestones. In the family well-being portion of the sessions she was able to learn new stress management techniques and coping skills that helped reduce her feelings of frustration and increase her positive interaction and play with her daughter."*
- *"My time with the PAT @ USC program has been profound. I continue to meet with families and am inspired each time. One family, in particular, has experienced intimate partner violence and the mother is now a single mother. The mother has found strength through the support of PAT @ USC, and now sees strength and growth in her baby instead of sorrow and constant worry. This family is now thriving with weekly library visits for story time, problem-solving techniques, and the mother is more confident in herself and her parenting style. All of these provide a healthy family and promote school readiness for her baby."*

Parent educators saw professional growth:

- *"I was a little bit skeptical when I started, because I had experience before, but only being in the same room with a client. But I was pleasantly surprised to find out that it really attuned me to listening. You don't have the energy that you feel when you're just in the room with somebody, so, you really go, "What am I hearing?", and it acutely attunes your ear. I think I'm better going through that way of doing counseling than if I hadn't done it."*
- *"There's something unique about the online form, being able to share something immediately from an online source, like something I researched for a client. Also, the supervisors were always available."*

Next Steps

This virtual parent education approach has the potential to reach thousands of unserved and underserved families.

Virtual home visiting within the Parents as Teachers home visiting model is feasible and shows preliminary effectiveness, as demonstrated by the Parents as Teachers @ USC telehealth project.

Essential to the commitment to demonstrate effectiveness is the process of scaling research to continue amassing learnings and outcomes, while continuing to build a national virtual home visiting (VHV) infrastructure. The roadmap to guide this work includes:

- **Scaling for implementation and research** in geographic areas, vulnerable or hard to reach families (e.g., medically fragile, geographically isolated, military, and homeless), while deepening our understanding of implementation of virtual model components.
- **Building of infrastructure** to support virtual training, professional development, implementation guidance, and evaluation of virtual delivery.
- **Evaluating on-ground (traditional service delivery) and virtual hybrid service delivery (mix of virtual and on-ground)** working with high-quality PAT affiliates.
- **Screening and Assessment training for all home visitors,** including specialized training for home visitors implementing in the virtual environment, as well as specialized training that expands understanding of skilled facilitation of family-centered screenings and assessments.

- **Creating a parent access point** (e.g., app or portal) using human-centered design that allows parents to access parent-facing materials, videos, and other resources.
- **Scaling for population impact,** as virtual home visiting has the potential to broaden the reach.

Parents as Teachers National Center is engaging current and new stakeholders in the expansion of strategic implementation research projects.

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