Adopting and growing a community-based early language program: Challenges and solutions for implementation success

Cary M. Cain
Baylor College of Medicine, cary.cain@bcm.edu

Kimberly Kay Lopez
Baylor College of Medicine, kimberly.lopez@bcm.edu

Lynda Chima Aririguzo
Baylor College of Medicine, Lynda.Aririguzo@bcm.edu

Angela Cummings
Baylor College of Medicine, angela.cummings@bcm.edu

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Adopting and Growing a Community-Based Early Language Program: Challenges and Solutions for Implementation Success

Background

Early language acquisition provides a critical foundation for kindergarten readiness and future success.[1–3] Research shows that language difficulties at school entry have effects into adulthood on literacy, mental health, and employment.[4] There is strong evidence that a child's language development is associated with the quantity and quality of interaction directed to them by adults, caregiver's knowledge of child development, and responsive caregiving.[5,6] Young children learn through supportive relationships with caregivers who offer reciprocal communication, engage the child's interests, and provide cognitive and language stimulation that scaffolds the child's early learning.[7–11]

The number of early language interventions focused on increasing skills of caregiver interaction with their child has increased over the past decade.[12] These programs have been shown to be effective in supporting language development in children.[13,14] However, there is a paucity of published literature on early language program adoption and implementation in real-world community settings. The majority of published manuscripts are in program development and effectiveness research contexts.[12,15,16]

Studies have shown that some evidence-based programs fail to replicate results demonstrated in development and effectiveness trials when the programs are broadly disseminated in real-world community settings.[17,18] Some reasons for this are differences in recruitment and engagement strategies, community needs, adaptations to implementation, and difficulties with program sustainability.[18,19] The field of implementation science provides frameworks to translate program effectiveness research to real-world implementation.[20] Aarons et al.[21] present an implementation framework on phases and factors within the public health sector. The phases are exploration, adoption/preparation, active implementation, and sustainment. Within each phase are internal and external factors to consider, such as funding, leadership, organizational characteristics, adopter characteristics, staffing, and collaborations. In order to examine challenges and solutions in implementing a community-based early language development program, this manuscript focuses on the internal and external factors within these phases through qualitative interviews conducted among leadership, staff, and past program participants of a community-based early language development program.

Community-based program

The upWORDS program is a 14-week community-based early language development program designed to support the language development of young children. The program is a part of a large hospital system in an urban region of the southwestern United States and was started by a Speech Language Pathologist (SLP) in 2015. Based on the SLP's experience in delivering speech therapy, she was interested in intervening early with families to prevent speech and language delays and to support early brain development. The first upWORDS class started in 2016 at one site within a community hospital. The program was delivered at this original site for 16 months, and then in 2018 the program expanded to more community-based sites. To date, the program has been provided to over 800 families in more than 20 community sites in the region.

Initially, the program was staffed by SLPs whose main duty was to provide clinical therapy to patients at the community hospital. These positions were not inclusive of the responsibilities of the upWORDS program, so in order to expand the program to more community-based sites, dedicated program staff were hired. The dedicated program staff had diverse backgrounds in speech language pathology, community/public health, and primary education; and over time, former upWORDS program graduates were hired as program coordinators and instructors. All program staff received training on how to coordinate and instruct caregivers in the program curriculum. This training was initially developed by the curriculum vendor and over time was adapted by the upWORDS program manager to include additional information to meet the needs of the expanded program.

The program is delivered through weekly group-based meetings. upWORDS uses the LENA Start™ curriculum, which includes bilingual (English/Spanish) PowerPoint presentations with curriculum topic information; exemplar videos with caregiver/child models of the specific curriculum topic; a parent guide, including topical information and space for the caregiver to journal about their interaction with their child; and instructor guides, including scripts for curriculum delivery. These curriculum components help maintain fidelity to the program across various locations. Table 1 includes information about the specific LENA Start™ curriculum topics.

Table 1. Curriculum Topics for LENA Start™

Week 1	Orientation to the LENA Digital Language Processors (DLP)
Week 2	DLP Review and Introduction to the 14 Talking Tips
Week 3	Talking Tips Review and LENA Reports
Week 4	Shared Reading
Week 5	Songs and Rhymes
Week 6	Talking Tips and Practice
Week 7	More About Your Baby's Brain (Early Brain Development)
Week 8	Midpoint Reflections
Week 9	Math Talk: Movement (Prepositions and Action Words)
Week 10	Building Brains by Asking Questions
Week 11	Language of Food
Week 12	Math Talk: Space (Prepositions and Action Words)
Week 13	Out and About
Week 14	Graduation

In addition to the curriculum, each week families take home a LENA® digital language processor (DLP) to record up to 16 hours of language interaction in the home on 1 day between sessions. The device is worn by the child in a vest that has a front-facing pocket where it is secured. The DLP measures the number of adult words spoken toward or near the child, the number of child vocalizations, the amount of time the child is exposed to television or other audio electronics, and the number of conversational turn interactions between an adult and the child (time-adjacent adult-child language interaction occurring within 5 seconds of one another).[22] Each week, caregivers bring back their DLP from the prior week and it is processed by the program coordinators. The recording data is processed using algorithms in a cloud-based system developed by the LENA® Research Foundation. During the weekly sessions, caregivers receive feedback from the data collected on the DLP so they are able to track changes and work to improve the quantity and quality of their verbal interactions with their children.

In addition to the LENA Start™ curriculum, the upWORDS staff provides additional parenting support and connects families to community resources. The staff recognizes that if stressors are occurring in the child's home environment, the caregivers may have barriers in their ability to engage in their child's language development.[23] The program has partnerships with the food bank for food vouchers, bilingual SLPs for

information on bilingualism and language delay, and parenting educators providing positive parenting information on child discipline and preventing behavioral issues. The program also provides resources for essential items such as diapers and wipes.

Incentives and supportive resources are provided during each program session, which helps reduce program attrition. For returning DLPs and participating in the sessions, families are given an age-appropriate children's book to encourage shared reading at home. By the end of the program, participating families have a library of up to 16 children's books. Free child care and food are offered to caregivers at each session. Additionally, if a caregiver misses a session, program coordinators will contact the caregiver to check in on them and make arrangements to meet with the caregiver at a separate time (usually prior to the next session or staying late after the session) to provide the caregiver with the missed session content. Coordinators also utilize a text messaging system to contact caregivers during the week with reminders about classes. Data from the pilot of the upWORDS program showed that the program attrition rate was 20.4%.[24]

To date, upWORDS has been implemented using grant funds and does not charge participants to attend. Grant funds cover all program expenses including manager and staff salaries. Through a variety of funding sources, program leadership and the development department at the hospital have identified philanthropic funding to continue implementing the program.

Methods

A qualitative evaluation was conducted to identify program implementation challenges and facilitators from the perspective of upWORDS leadership, staff, and past program participants. We conducted semi structured interviews with each stakeholder group.

Leadership and staff interviews

To understand program implementation challenges and solutions, interviews were conducted with the upWORDS leadership and staff. The upWORDS program manager and current staff were invited by email to participate in individual or group interviews by phone or in person. In order to attempt to facilitate nonbiased responses, interviews were conducted by one member of the research team who was not previously involved with the upWORDS program. The interviewer used a semi structured interview guide developed by the research team. The interviews were conducted

between December 2019 and February 2020. Interview topics included program successes, challenges, and solutions to challenges. These interviews were recorded and the interviewer took notes during the interviews. The audio recordings were later transcribed by a member of the research team using the Trint transcription platform.[25]

Past program participant interviews

Past participants of the upWORDS program were interviewed for a study to identify lasting program benefits (manuscript in preparation). The interviews were conducted by three different research team members between November 2018 to January 2019 (approximately 1 year prior to the leadership and staff interviews). All of the interviewers were bilingual (English/Spanish); two of the interviewers were not involved with the upWORDS program prior to these interviews, and one interviewer was a program coordinator but was not previously involved with the participants she interviewed. Purposive sampling was used to recruit past upWORDS participants for the individual interviews. Recruitment invitations were sent via email, text message, or phone call. When a response was received, a research team member followed up with an email or phone call to schedule a 30-minute phone interview. All participants had participated in the upWORDS program at the original program site and graduated from the program at least 1 year prior to the interview date. Interviews were conducted in English or Spanish. Interviews were recorded, translated to English (if necessary), and transcribed by the interviewer. For these interviews, a semi structured interview guide, created by the research team, included questions about the following topics: parents' reflections on their interaction with their children in light of the upWORDS program, perception of their own knowledge and behavior change, strengths and weaknesses of the program, and perceptions about their children's development. Content that parents provided on the strengths and weaknesses of the program and any information related to program implementation were included in the analysis for this study.

This study was approved by the Baylor College of Medicine Institutional Review Board.

Analysis

Interview notes and transcripts were analyzed using thematic content analysis. Thematic content analysis involves reading and re-reading the interview data to code passages, categorize them, and identify emerging patterns and themes.[26] For the analysis of all interviews, two of

the research team members were involved with the administration and research of the upWORDS program since the inception of the program and one team member did not have previous involvement with the program prior to this study. Consensus was established among the three research members by collectively discussing the codes, themes, and subthemes. This process was done through reading, re-reading, and listening to the interview quotes and by agreeing with, merging, or creating new codes, themes, or subthemes that the research team agreed upon. Pseudonyms were given for all respondents (leadership/staff and participants).

The leadership and staff interview transcripts were inductively coded using MAXQDA qualitative data management software[27] independently by two members of the research team (one without previous involvement in the program and one with previous program involvement). The transcripts were initially coded for thematic content broadly addressing successes and challenges in program adoption, implementation, adaptation, and sustainability. Three members of the research team reviewed the codes to establish consensus on major themes and subthemes.

For the participant interviews, a code book was manually created by three members of the research team from the initial reading of interview data. Data from interviews were aggregated to determine themes of parents' experiences and views. Themes were identified based on the subject content of the interviews and the repetition of keywords. This process involved using a series of iterative comparisons between data sources (interview notes, audio recordings, and transcripts) to determine similarities. The data was coded independently by two members of the research team (one without previous involvement in the program and one with previous program involvement) and reviewed among the three members of the team to establish consensus.

While past participant interviews were conducted for a different purpose, the information collected provides another perspective of program strengths, weaknesses, and recommendations for program improvement. This information is included in this manuscript because participant feedback was an important consideration in program adaptation and expansion. For the scope of this current manuscript, only the information related to the program implementation is presented.

The research team used the recommendations presented by Cope[28] to establish trustworthiness in the research approach. These criteria included: credibility, dependability, confirmability, transferability, and authenticity. Members of the research team were engaged with the program and provided this insight while interpreting the data. Data collected from program staff and also from past program participants had redundancy, so

we believe that data saturation was achieved in both groups of interview stakeholders. Additionally, numerous meaningful quotes from program leadership, staff, and past participants are provided which express the authentic feelings and emotions of their experiences. Study findings were shared with the program leadership and staff to confirm that the findings accurately reflected their viewpoints.

Findings

Leadership and staff findings

Four interviews were conducted with six upWORDS leadership and staff members. Based on scheduling and availability, the program manager and two staff members were interviewed individually on the phone, and three staff members participated in an in-person group interview. The demographic characteristics of the leadership and staff members are reported in Table 2. Their time working with the program ranged from 7 months to 4 years.

Table 2. Demographic Characteristics of Program Leadership and Staff Members (n=6)

Demographic Characteristics	n(%)
Gender	
Female	6(100)
Race/ethnicity	
White non-Hispanic	2(33)
Black non-Hispanic	1(17)
Hispanic	3(50)
Employment status	
Full-time	3(50)
Part-time	3(50)

Two overarching themes emerged through thematic content analysis of interview notes and transcripts (Table 3). One of the overarching themes, servant leadership, included four subthemes: organizational challenges, program growth and expansion, adapting to the local context, and importance of relationships. The other overarching theme, implementation facilitators, included resources related to program implementation. Challenges and solutions related to each theme are described below.

Table 3. Themes, Subthemes, and Codes: Leadership and Staff Interviews

Theme	Subtheme	Codes
Servant leadership	Organizational challenges	Program adoption and startup Organizational support/buy-in Organizational challenges
	Program growth and expansion	Program growth Sustainability Specialized team members Growing pains Program reach Continuous quality improvement Anticipation/strategy
	Adapting to the local context	Adapting to the local context Maximizing engagement Curriculum Adaptation/adaptability Cultural sensitivity Flexibility
	Importance of relationships	Leadership/champion Perseverance Supporting staff Bond among staff members Relationships between facilitator and parents Dedication to family needs Retention Relationships built during recruitment Relationships among families Relationship with vendor Community partnerships
Implementation facilitators		Staffing capacity Incentives Funding Childcare

Servant leadership. While the four subthemes under servant leadership are broad and capture many challenges with program implementation, servant leadership, defined as prioritizing needs and facilitating the well-being of stakeholders, was the premise on which the majority of the program successes could be attributed. Perseverance and dedication to the families and community were foundational to the program from the beginning (exploration and adoption/preparation phases) and continued to influence the active implementation and sustainability phases of the program.

> *It [the upWORDS program] wouldn't have gotten started, except for [program manager], she had this idea. And she just wouldn't give up on it. And she recruited other people that she needed to help her overcome all these different obstacles that came. And they [program developers and implementers] definitely have to be dedicated and want it. And I know it was not easy for her. I felt like I had it easy now, but it takes a lot of work. But the reward is huge.* --Daniela, program staff

> *I think that's probably one of our most important pieces for program success is empathy and the connection that's created with families.* --Mia, program manager

Organizational challenges. Given this program was the first of its kind to be implemented in this large hospital system, the program manager stated that in the exploration and adoption/preparation phases, internal organizational barriers were the biggest challenge to overcome. She stated that these challenges included legal aspects, contracting, defining new staff roles, and increasing capacity. It took time and perseverance on the part of the program manager to work through these challenges on top of managing a full-time caseload as an SLP. Through meetings with representatives from multiple departments within the hospital system, the program manager and leadership from her department were able to describe the program and explain how it aligned with the mission of the organization. She stated that the correct framing was necessary to obtain buy-in and support from leadership in multiple departments so they could move forward to execute contracts, allocate time from existing SLPs' schedules to the program, and create new positions to fully staff the program.

It [the program] was such a new initiative that the procedure for approval and implementation needed to be determined… --Mia, program manager

So I think that was something that I probably wasn't prepared for, just how many other departments we needed to work with and to be able to get this all to happen. So, for example, we needed to receive approval from different levels of leadership; there was legal for the contracts, risk and compliance for looking at potential risks and how to safeguard our families, and IS [information security] for security schedules to keep data secure. --Mia, program manager

To address legal challenges, such as concerns about protected health information (PHI) and contracting with the program vendor, it was necessary to convene numerous meetings with the organization's legal department to clearly lay out what information could be collected, how it would be stored, and how it would be used.

We had some obstacles because there was portions of information sharing that were considered PHI. We needed to collect birthdate and phone numbers to be able to process the DLPs. Since these DLPs record voice frequencies in the home environment, there was a lot of risk foreseen in the beginning that we needed to work through. This was a new initiative for our hospital and required various departments to figure out the best path forward. --Mia, program manager

Preparation for implementation of the program required new responsibilities for existing staff and creating new positions so additional staff could be hired. This required negotiation with supervisors and leadership, as well as writing job descriptions and seeking approval for new positions that did not previously exist within the organization.

For us, when we started the pilot, we didn't have dedicated people to only that pilot. You're figuring out how and will this work and is there proof of concept. We had people that were very committed to the program in the beginning but also their main responsibilities were to other roles within the hospital. That was a challenge because we had people for a limited amount of time and had to figure out how to get all the necessary pieces done [recruiting, calls, class preparation, and follow-up]. --Mia, program manager

> *The hiring was difficult at first to get positions approved. Also because the job responsibilities were somewhat novel to what had been done in our organization, we had to figure out how to create roles. There is also the logistics of where will these staff members office out of and where makes the most sense for where the program will be implemented. These logistics also changed as we learned from our work and grew our team.* --Mia, program manager

Finally, the manager encountered the challenge of needing staff time to successfully implement the program, while also generating the evidence that the program was worthy of hiring new staff. She stated it was challenging to find the time to navigate the adoption/preparation and initial active implementation phases within the organization, recruit participants, teach and organize the initial classes, and provide makeup classes. With the limited initial staffing, this was a barrier:

> *I think that it was a challenge at times to be able to cover classes and do things that needed to be done for growth, such as partnership meetings or family recruiting.* --Mia, program manager

> *To me, the hardest was the pilot and training because you don't have dedicated staff yet but you need to deliver the program with high quality to be able to prove proof of concept and have the necessary evidence for expansion.* --Mia, program manager

Program growth and expansion. Many of the challenges with the exploration, adoption/preparation, and initial implementation (pilot) phases were different from those of the active implementation and sustainment phases. According to the manager, through community-based recruiting efforts, securing external funding to expand the program, and a desire to serve a more diverse population of families, there was a critical need to expand the program to community sites outside of the organization. Expansion involved establishing community partnerships, hiring and training specialized staff, handling logistics of bringing a program to sites outside of the organization, and maintaining the quality of the program.
Instead of first identifying a community site and then recruiting families to that site, the program staff learned where the locations of greatest need were and they established partnerships with the community sites in those areas.

> *We just run to find a location that's closer to them [the families], making it easier for them.* --Bella, program staff

> *We have waiting lists that we look at to determine where do we have a lot of families interested that we don't yet have a class near so they can attend. We had to figure out how do we get a location in that area, who do we partner with or if there was an area of the city that had high need, we had to figure out who may be our recruiting partners within that area. All of these factors helped drive the development of community partnerships.* --Mia, program manager

The staff noted that they approached the community partner by sharing the vision for the program, aligning with the mission of the community partner, and letting them know that they had recruited families in their area who were ready to start the program.

> *We usually see if there is a need. If we have enough people that we do need a location, we usually let them [potential community partner/site] know: This area right here, we have this many people and we need to start a class… It's just going to be good for your community and is going to be good for your neighborhood centers. So it'd be good if we can have a location here for, you know, with you, for our people.* --Bella, program staff

In order to expand the program to multiple community sites, the manager hired and trained additional staff with flexibility to commute between sites: "*The manpower was definitely a challenge when we first started to have that expansion*" [Mia, program manager]. The manager hired program coordinators and health educators, including parent graduates of the upWORDS program.

> *The more people we recruit, the more families and children we reach. Our program is expanding and in turn the more staff we need.* --Jade, program staff

> *I guess that the staffing problem, one thing that I really like about it is that we've had past participants then become coordinators. I think that's really awesome because now they've been on both sides of it and bring something to the table that I, as a speech pathologist, can't.* --Daniela, program staff

Expanding the program and adding the additional staff highlighted the need for continued training and the development of specific policies and procedures to maintain the quality of the program. When the program was only at one site, the manager stated that she was able to actively be involved in most aspects of the program; however, upon expansion she was not able to be in multiple places at once so she developed an extensive training plan and policies and procedures to maintain the quality of the program as it grew.

> *When looking at growing the program, we wanted to maintain the quality as we on-boarded more staff members. This led to the development of policies and procedures so that everyone could be on the same page. It took time and a lot of adjustments to figure out what policies, procedures, and trainings were necessary so that all staff members have the same core set of skills, right, to be successful.* --Mia, program manager

One recommendation from the manager to program interventionists starting or adopting a new program is to create operational policies and procedures specific to the implementation of the program from the beginning so that you have the core foundation when the program expands.

> *If your program expands, it will be extremely helpful if you already have these [policies and procedures] in place. They can be edited as the program develops and changes, but if you have them early it will help with training new staff...* --Mia, program manager

Geographic expansion of the program also brought about new challenges with staff traveling from site to site and making the program (equipment and session resources) transportable.

> *With community partners and sites like that... I would say that it is challenging. I've gone offsite, you know, not at [the original program site] for a group… and just driving in the city, you know, going from point A to point B. I think it's great to have it all over the city, but it makes it challenging to the coordinators.* --Daniela, program staff

> *So, you know, you get some place then, I don't know. Especially when you're going to different places. And it's like, oh, I didn't bring the speaker. You know, just kind of trying to keep up with the projector. People [community sites] don't have their own [equipment]*

> *and hauling that everywhere, you know, it's like this big rolly thing that we had to roll around everywhere with our projector and speakers and whatnot.* --Daniela, program staff

Through the relationships with the community partners, the staff worked with many of the sites to find onsite space to store equipment and program materials so that they did not always have to transport them weekly among the sites.

Finally, the leadership and staff stated that the process of continuous quality improvement was critical for the growth and sustainability of the program. Two qualities the manager instilled in the staff were reflection and self-evaluation at each stage of the program. Most of the staff mentioned self-evaluation, reflecting on each class and learning from their mistakes, and reaching out to one other and to their manager so that they could continue to improve the program. This process also included anticipating potential obstacles and determining solutions.

> *And I think as we grow, we learn more, we are becoming more aware and informed in what we are doing in the community.* --Jade, program staff

> *A continued growth and patient first mindset is something I feel that is extremely important for us. We're often thinking about how can we make improvements to better support the family, deepen learning within classes, and prevent any obstacles if we can. We take the feedback we hear from families and try to figure out how we need to make changes. Right after class, staff will often debrief either formally or informally to celebrate what went right in the class, what families may need some extra support, and where there are opportunities for us to grow. This not only for what happens within the classes, but also at every stage… So whether it be from how to develop community partnerships, recruiting, or processes to make us more efficient, we try to always have that mindset. I hope that we always have that growth mindset.* --Mia, program manager

As the program grew, the continuous quality improvement process occurred in multiple forms--from individual changes in how the coordinators implemented certain aspects of the sessions to staff meetings where systemic changes and improvements were made to enhance the program and meet the needs of the families.

Adapting to the local context. Once the program expanded to the different community sites, the manager stated that *"different parts of the city had different needs and different concerns that needed to be addressed"* [Mia, program manager]. Encountering this challenge during the active implementation and sustainment phases required adaptability and flexibility to work among different populations, while staying true to the mission.

> *Learn to be more flexible. That's something that should be on a daily basis. You should understand the way you plan your day is not necessarily going to be the way it's going to end. And you should be okay going along with what you have right now. I know that was a struggle for me.* --Bella, program staff

The rolling recruitment and scheduling method allowed the program to expand to areas of need and is reflective of how staff adapted and prioritized the needs of the participants.

> *The truth is, whenever we are recruiting, we have different sites. So we're not just recruiting for one site, okay? We are recruiting. We telling you can have different locations in different neighborhoods that actually have the class already. So we tried to just see if we're gonna have enough people that match you... we just want to find a location that's closer to them, making it easier for them.* --Bella, program staff

> *A big part of success with this, as well, is flexibility… we'd rather, you know, get a good quality group... the rolling [recruitment and scheduling] works better for us because we can be more flexible.* --Julia, program staff

Many staff members mentioned that each group at each location differed, so they adapted their teaching methods to maximize engagement.

> *Staff pays attention to how the families are responding in classes and what their concerns. They look at if specific cohorts need to do different activities or do they need more hands-on learning with interactions, or of what needs to happen to get families more engaged. They still keep the curriculum the same and give them the same information, but get creative with what the delivery looks like.* --Mia, program manager

> *I believe it's depending on the location, and depending on the class. It's kind of hard to describe it, but we see differences in all our classes. It depends on each class and we change the classes a little based on what we think benefits the group, and who is in the group. And every class is just a little different. Even though we're doing the same exact thing in every class.* --Jade, program staff

This flexibility included not only the delivery of the content but also flexibility with the preferences of the participants. The program was delivered primarily to the parents of young children, and childcare was provided for the children at each site. The staff noted that some parents preferred to keep their child(ren) with them while they were learning and that some parents preferred to have their child(ren) in childcare. Also, some parents preferred to sit with the parent group and some parents preferred to sit on the floor with their child:

> *Some families are like, I want to engage with my child because, I think, I want to do this with the child… like Gymboree approach is like, okay, you want to sit on the floor. Let's sit on the floor… It's easier for them if they are with their child. Or sometimes they want that hour by themselves.* --Clarissa, program staff

By allowing this flexibility during the sessions, the staff were responsive to the needs of the families.

Another aspect of adapting to the local context was staff identification of different needs at different locations, including needs beyond the scope of child language development. Program enhancements were made to address some of the needs of the families. Some of these enhancements were specific to the developmental period of the child, such as providing information on postpartum depression or positive parenting. Other program enhancements were meeting some of the tangible needs of the families, such as connecting them to resources like food, diapers, and wipes:

> *Okay, maybe now my families, for example, I have his group and I do need support for it. I feel like we need to know what they need. Most of them are struggling. What can we do for them? ...maybe you need to do a needs assessment? ... Because they're really struggling and they do need help. Clothes, food. Things like that. And now we have it [needs assessment] included in our program.* --Bella, program staff

I reached out to the food bank because there were families that could benefit from a program they have. We look at it as we have families that are coming, what can we do to support them? In addition to the food bank there are other needs we may provide support for, like medical needs… A lot of our families have questions about insurance. A lot of children coming in with speech and language delays and we help families navigate next steps for those concerns. I don't think I anticipated that happening as frequently as it has. I think the parents having a place to be able to talk about some of those things is important. --Mia, program manager

The staff acknowledged times when the needs of the participants and the community were beyond their scope. One staff member mentioned one group that met in a lower socioeconomic apartment complex. She stated that many of the participants from this group had stressors that prevented them from engaging in the program, despite the free resources provided.

The manager was always looking for ways to assist with the needs that were beyond the scope of the program. The leadership and staff acknowledged that additional stressors potentially impacted the ability of the parents to support their child's language development. Through staff identification and response to unique needs in each community, the program supported the healthy development of the child.

I think what would be beneficial in our program is if we have, kind of, a care coordinator that can get families to the next step. Just to be able to make sure they've got the help that they've needed. If it's postpartum depression, anxiety, relationship problems, or whatever, just to provide them a little bit more support with those things. --Mia, program manager

Surprisingly, cultural barriers or considerations did not emerge as a major challenge. Program leadership and staff were specifically asked if they had any challenges with cultural barriers, and most of the respondents stated it was not a challenge. However, two staff members stated that if the caregiver's first language was not English or Spanish, they may have encountered some difficulties in communication but were able to work with the individual. Another staff member noted that, compared to English-speaking participants, Spanish-speaking participants tended to be more open in discussion with each other. These differences were noted, but only when specifically asked and were not identified as major barriers to program implementation to date.

Importance of relationships. While the staff members acknowledged that the curriculum used for program implementation was important, they overwhelmingly felt that the relationships with the manager, between the staff members, with the program participants, and the community sites were critical for successful program implementation and sustainment.

> *It makes a huge difference to have a leader who will get right in there with you and make you feel you're supported. For someone to start a program and come in with that attitude of support and they're in it with you, it will trickle down to their staff, which then trickles down to parents and families. If they go into the community and genuinely model what they want to see in their staff, that's just going to build so much better of a program"* --Julia, program staff

This relationship was first modeled by the manager, who created a psychologically safe environment for staff to be able to learn from their challenges and come up with solutions. This workplace climate facilitated the development of supportive relationships among the staff members as well, which benefited the program participants.

> *I can ask for help and in this thing we know that it's okay. You're not being judged, you actually are being appreciated for being able to say that, okay, this part I'm really struggling. But it's all about the family. It is nothing personal. You're trying to do what's best for the family.* --Bella, program staff

> *I would recommend focusing on quality of the classes over perfection. Throw out the idea of what a perfect class will look like and also be flexible with it. There are new families, new locations, and it doesn't all "look" exactly the same and that is okay. What works for one group may not work at all for another and sometimes the days that feel like "mess-ups" or everything just didn't go right no matter how hard you try are the days that the families get the most out of it, it seems. Sometimes they will step in to help you… And I think something important might happen on those days where it feels like it just didn't go right. The majority of the time families see you're human and there's something in that, right? They know that you're showing up and you care and sometimes they will step in to help you if you're short staffed to hand out books or food to the families. I think*

for us letting go of this idea of we need to be perfect has helped us build more community with our families. --Mia, program manager

The manager was also mindful to train the staff to ensure that the quality of the program was maintained. Beyond training in the curriculum, this required thinking about the skills that her staff needed at each phase of the program, such as building relationships during recruitment, interacting with the parents during the class, and reflecting on what worked and what didn't after each class.

Taking the qualities that you think are important for families to receive at various points--initial meeting, recruiting, coaching on reports, and follow-up--and think about how you develop those. We spent time thinking about what does the training process look like, who will be the mentor, what further education is needed, and how do we build that core set of skills. --Mia, program manager

All of the staff stressed the importance of beginning the relationship with the program participants during recruitment. They stated that the process of contacting the family prior to the program helped establish trust, which they viewed as critical for the families to learn the information from the program.

And what the main thing I feel like is, you have to, from day one talking on the phone and email, face to face, whatever--you have to start building that trust, building that relationship. Because they're not going to listen to what you're teaching them if they don't trust you. --Julia, program staff

I do think it makes a difference in that it's harder for me to make that connection because I'm seeing them for the first time when I walk in the class. When I was recruiting them, I feel like I already, you know, explained the program to them. I've already seen their faces. So I have already followed up with them. So I feel like if you're involved in all this, every step of the way, I feel like you have a much stronger connection to them. --Daniela, program staff

Additionally, the aspect of servant leadership in understanding the needs of the participants and assisting them was critical in building relationships and retaining participants in the program.

Your heart has to be in it. And that's how you keep them, because once they start coming, you know, you learn their names and you talk to them and they start sharing things with you. And, you know, follow up with that every week and, you know, ask, hey, that thing you were talking to me about, how is that going? You know, if they have any concerns, like take that extra time after class or whatever, to sit down and listen or maybe give them resources. We do that all the time where we will pull out our phone and look up who can help this person. You know, what is the closest ECI [early childhood intervention] near you or whatever… Help them and then follow up. Did you call them? How did that go? How did it go when you talked to your doctor? So just like just getting to know them and then knowing, hey, they really care. They're invested in us. It keeps them. I feel like that's what keeps them. --Julia, program staff

Another way that the staff built trusting relationships with the participants was through being sensitive to where the participants were in understanding their child's development. The upWORDS program focused on the development of the child, and in some cases the child may have some developmental delays that the parent learned about while participating in the program. One of the program staff mentioned the importance of being sensitive to the parents and allowing them time to cope.

I needed to be mindful of the parents' coping period when they hear there might be a delay or difference in their child's development. The parents understanding and taking all this information in, it takes time... so it's a challenge whenever there is a group you also have to keep in mind. You have to give the parents time, you have to be mindful of what the parents are going through. And that can be very difficult for us because we just want to move. We just want to be like, okay, do this, do this, do this... but no, it takes time. --Jade, program staff

Furthermore, the leadership and staff stated that relationship building with community partners was a critical piece of program success. They stressed the importance of building the relationship with the community partners through aligning the missions of the community partner and the program, meeting the partners where they were, and continuing to build the partnership through the commitment to the program.

I think the more connections that you can make, both within your organization and outside, to find where your mission aligns with whatever that of the department or organization is, the better off you'll be. You'll get more people invested in the program that can also bring new perspective or ideas you wouldn't think of on your own. I think the more people you have involved, the better. --Mia, program manager

I feel like super important is, especially for someone starting up something that involves them being in the community--you want the community to be a part of it. When you start, you can't go in above them, if you know what I mean. You need to get dirty. You need to go in, go, and just be personable to them. Meet them where they are, you know? ...we have great community partners. But the thing with them, too, is the same as the parents... you have to build that relationship with them, as well. And, you know, show them we're committed, like, this is a real program. Our hearts are in it and we want them to feel the same way about it. --Julia, program staff

Implementation facilitators. The leadership and staff identified implementation facilitators that were critical in starting a new program and then growing and sustaining it. These implementation facilitators were appropriate levels of staffing, incentives for participants, childcare, and funding.

Staffing capacity. For this specific program, it was necessary to collect and issue DLPs every week and provide childcare. So the staff learned through trial and error that it helped to have a minimum of two facilitators per session, depending on the class size:

So you have to have at least, well it depends how big your class is. You have to have at least one up-front person and one back-of-the-room person that's keeping everything organized, the recorder and the other records, making sure the reports are ready to go and things like that. --Daniela, program staff

Incentives. upWORDS used some of its funding to purchase incentives to give potential participants during recruitment and the sessions. While the staff stated that the outreach to the families and the relationships that were built during the program were primarily responsible for retention, they also agreed that incentives were helpful for getting people interested

and willing to talk to them at recruitment events and useful for reinforcing the concepts taught through the curriculum (i.e., shared book reading).

> *Well, the books that come with the program I think are a huge incentive. People were really excited about the books. And then we would do a little thing every class. We would have a drawing... so we used the amount of recorders that had been returned… so that they would get a little prize. It might be a bib or a pair of socks or just something small that they could have for their baby.* --Daniela, program staff

Childcare. The program manager identified childcare as an essential element that is challenging to provide. The original program site had institutional support and space to provide childcare. At most of the community sites, the location of child care was a challenge as children often remained in the same room where the class was taught. Staff stated that some parents did not mind this, while others found it to be a distraction from the material being taught. The ability to provide childcare changed over time as more staff members were hired:

> *We want quality childcare interactions. And that takes hands, time investments, and resources. So that's something that we have continually, kind of, tried to look at. How do we get volunteers involved to help us with this piece, or where could we develop community partners to get college students involved?... Over the past 8 months, we've been able to develop a childcare curriculum as guides to be put in place. You have an hour with that baby. And are we doing everything we possibly can to be making the best change in that child's life? Sometimes it can look like just chasing kids around the room given their ages or what is going on with them. But it's not. Can we be modeling how to read a book with the baby? Can we be modeling, joint attention, and redirection? How can we be the best models for parents with the information they are learning in class? Sometimes it might not make sense just hearing about it. But hopefully if they see it from us, that kind of just takes that knowledge deeper. But again, that childcare piece just takes time and resources. So I think that was a challenge and still is.* --Mia, program manager

Funding. Finally, given the degree to which the program grew in 4 years, funding remained a challenge for sustainability in that grants are not guaranteed long-term funding.

It can seem like a very, very huge task in the beginning, I think. Maybe I just didn't have experience in the grant world initially so it seems really daunting in the beginning. We are lucky we have a philanthropy department that helps us with this piece and have a lot of team members with a strong community presence. It may take some research and leaning on other departments or members of your team that have done this piece before, but they will make the efforts stronger. There are so many amazing foundations that people want to donate and see positive change for families. There is potential funding for great pilot programs with a community focus and you'll find ones that align with the work... --Mia, program manager

Participant findings

Semi structured phone interviews with 16 participants from 6 different program cohorts were conducted by three members of the research team. Demographic information obtained from 14 of the 16 respondents are reported in Table 4. Sixty-four percent of respondents were born outside the United States, while 100% of their children were born in the United States. All of the respondents participated in the upWORDS program at some time between January and November 2017 at the original program site, prior to program expansion.

Table 4. Demographic Characteristics of Past Program Participants (n=16)

Demographic Characteristics	n(%)
Child age--mo (mean/SD)	26.7(6.72)
Child gender	
Female	8(50)
Male	8(50)
Relationship to child	
Mother	16(100)
Age--y (mean/SD)	31.7(4.88)
Race/ethnicity	
White non-Hispanic	4(25)
Hispanic	9(56)
Other	1(6)
No response	2(13)
Education	
High school graduate	1(6)
Some college/trade school	3(19)
College/trade school graduate	10(63)
No response	2(13)
Marital status	
Married	12(75)
Not married, but living with partner	2(13)
No response	2(13)
Total annual household income	
Under $50,000	5(31)
Over $50,000	5(31)
No response	6(38)

Past participant interviews and feedback were critical to inform adaptations and changes in the program. Two themes emerged from the interviews that were related to program implementation: program benefit and satisfaction, and program implementation improvements and recommendations (Table 5).

Table 5. Themes and Codes: Past Program Participant Interviews

Themes	Subthemes	Codes
Program benefit and satisfaction	Program content	Tracking Additional information provided
	Program participation facilitators	Childcare Incentives Duration Format Staff
Program implementation improvements and recommendations		Location Repetitive content Group interaction

Program benefit and satisfaction. Findings suggested high levels of satisfaction with the program.

Program content. Twelve participants stated that the greatest benefit of the program was the program content, including weekly feedback that they said expanded their knowledge of language development and gave them the ability to track their interaction with their child throughout their time in the program.

> *Being able to record how much you actually talk to your child helped a lot. When you first start off, you think you speak so much to your child. But with the recordings, you realize that you don't talk as much to your child as you initially thought.* --Marie

Participants also stated that because they were provided with weekly feedback and reminders of ways to interact with their child at home, they were pushed (positively) to create habits of communicating with their children that were sustained after the program was completed.

Though the focus of the program was on early language development, the staff provided additional information relevant to the participants during this developmental period for their child and connected families to additional resources in the community, which four participants identified as a program benefit.

> *We learned more than linguistic development… I am thankful for all the information--all the themes such as postpartum, car seat safety*

were very informative… because of that information, I sit my baby in the car seat, rear-facing. --Carla

Program participation facilitators. Features of the program that participants identified as helpful to encourage their participation in the program were the provision of childcare, program incentives, the duration of the program, and program format, and one person mentioned maintaining a relationship with the program staff.

Some respondents stated the provision of childcare made it feasible for them to attend the program because they have young children.

I have two kids and I work and I have no one to take care of them and they had an area to take care of the kids and it was very accessible. --Ana

In addition to childcare, incentives were provided to reinforce program content and encourage program participation. Four participants mentioned that they benefited from receiving a book each week they participated in the class.

I liked that they gave us books once a week. --Christina

It helped me a lot because I learned a lot about books and how to be with my children and how to talk to them. --Sara

Over half of the respondents (9) stated that the length of the program was appropriate for the information they received. A participant commented that *"it didn't feel too short or too long"* [Helen], while another noted that *"every class seemed beneficial"* [Christina] in regards to the length of the course. Six participants stated they thought the duration of the program could be extended *"because consistency makes routines"* [Carla] and if the program were *"any shorter, you wouldn't get enough data"* [Julie]. One participant stated a preference for the group meeting format:

Being able to hear what the other parents had to say what was going on. It gave you a basis of where you're at and where they're at. The group meetings were very beneficial. --Helen

Though this participant [Helen] and another participant noted that their cohorts had *"erratic attendance"* [Julie], which impacted their satisfaction with the program:

> *For me, I liked hearing what other people were going through. Sometimes it was the same two people showing up each week. There needs to be better regular attendance. Bigger group gives better feedback, feedback and discussion.* --Helen

Program implementation improvements and recommendations. Implementation barriers noted were the location, repetitive content, and the amount of interaction among the participants and with their children during the sessions. Three participants noted that the location for the class was not ideal and the travel time to the location was a time commitment (the original location, prior to expansion to community-based sites). Two parents mentioned that some of the program content seemed repetitive. Repetition is by program design to help participants grasp critical concepts; however, one parent offered the recommendation that *"it would be better if you repeat the same thing from different angles or different situations or make it more interactive"* [Melissa]. Multiple parents felt the classes lacked parent interaction. Almost every parent reported that they did not keep in contact with other parents in their cohort after the course, unless they already had a relationship with the parent prior to the course.

> *[During the class] Most of the parents were really shy and didn't want to talk, but I think it would be more beneficial to interact more with the parents.* --Melissa

> *The other families always left running [in a hurry]. We didn't have much time to chat with families.* --Ana

Additionally, the lack of hands-on activities and child interaction during the course was identified as an area with room for implementation improvement. Four parents recommended that more time could have been spent in class modeling and practicing with their children:

> *The program is all about increasing interaction with your child. It would be nice to have the interaction there, too.* --Tina

> *It helps when you do more hands-on activities so that it is not repetitive.* --Marie

Discussion

Prior studies of community-based early language development programs have focused on effectiveness outcomes.[12,15] This study presents qualitative information from the perspectives of program leadership and staff and past program participants on the implementation aspects of the program. Program leadership and staff reported their experiences in all phases of the program, from exploration through sustainment, and past participants described their experience participating in the program.

The program leadership and staff described challenges at all phases of the program, solutions to those challenges, and described useful information for interventionists that are working in the community. The theme that was overwhelmingly apparent through the leadership and staff interviews was prioritizing the relationship with the program participants in order to accomplish the goals of the program. This conceptually can be described as "servant leadership." The concept of servant leadership, developed by Greenleaf,[29,30] prioritizes addressing the needs and facilitating the development and well-being of stakeholders and followers first, and then the outcomes and goals will follow.[31] This servant leadership philosophy and dedication that flowed from it informed almost every aspect of the program from exploration through active implementation and sustainment phases. As expressed by the program participants, the curriculum and structure of the program are important, but based on the leadership and staff interviews, it is apparent that beyond the content and curriculum, relationships and addressing needs are critical to achieving the goals of the program.

These findings are consistent with studies in the literature suggesting that behavior change and maintenance comes from personal cognition (knowledge and self-efficacy) and supportive environments (such as support gained through trusting relationships with the program staff and tangible support for needs).[32,33] Community-based early language development initiatives can only be truly successful if they change behaviors of individuals, groups, or organizations to support healthy child development. Responsive and nurturing interactions between young children and their caregivers are central to language learning.[34] In the case of the upWORDS program, the ultimate goal is to change and enhance the behaviors of caregivers to support the language development of their children.

In dissemination and implementation science, there is an emphasis on the importance of understanding the contexts into which interventions are to be delivered.[35] Early in the active implementation phase of

upWORDS, the program manager and staff determined that the families participating in the program had unmet basic needs, and in many cases these unmet needs were impairing the families' ability to fully engage with their child and the program. While maintaining fidelity to the LENA Start™ curriculum, the staff began adding additional components to the program, such as teaching positive parenting and connecting families to the food bank. An adaptation process was adopted that relied on assessing, identifying, responding, and re-assessing. The adaptation process allowed for flexibility in adding components to the program; while maintaining the core program components.[21] Because the staff was assessing each cohort, there was an inherent flexibility in the adaptation process that allowed additional specific program enhancements to meet the identified needs of a specific cohort. As emphasized, it is critical for community-based programs to be responsive to the needs of their population and have an understanding of the context which they will be delivering the program. As the program adapts to meet these needs, evaluation should be conducted to avoid intervention drift, which is the misapplication of or losing the core components of the program model.[21] For the upWORDS program, practically speaking, this meant everyone received the same LENA Start™ curriculum (adherence and dosage maintained), but a cohort of adolescent mothers in a school-based setting may receive different program enhancements than a cohort of caregivers of children from the neonatal intensive care unit.

The identification and provision of resources for unmet needs outside the scope of language development underscored the associations between poverty, parenting stress, and quality parent-child interaction. Justice et al[36] found that parental stress mediates the association between economic hardship and parent-child dysfunctional interaction. These authors also found that the provision of institutional resources was inversely related to parental stress. The impact of poverty on early language development is highlighted throughout the child development literature.[37–39] While community-based programs attempt to reduce socioeconomic related disparities; the stressors related to poverty can be barriers to program participation. This was noted by one of the program staff who stated that despite provision of resources, families in an impoverished setting had difficulties engaging in the program. Other parenting programs have noted that those most vulnerable or at highest risk are often the most difficult to engage in parenting interventions.[40,41] Due to the 14-week commitment of this specific early language development program, it may not be feasible or accessible to all families, so other doses and means to reach this population should be explored.

Participant feedback (both formal through interviews and informal through the sessions) is important to inform program adaptations and improvements. From the perspective of the past program participants, overall they were satisfied with the program implementation and positively viewed the content of the program, provision of childcare, incentives, peer-to-peer group format, program duration, and additional information and resources that were provided outside the scope of child language development. The participants identified program attendance, location, content repetition, and interaction between participants as areas for implementation improvement. Due to the continuous quality improvement process that the staff adhered to, many of the implementation issues identified by past participants were addressed by the leadership and staff. For example, to address program attendance and attrition, the relationships are now built through the recruitment process, which, according to the staff, begins the trusting relationship earlier in the program. To avoid repetition and increase interaction during the sessions, the staff maximized engagement by adapting how they present the information, without compromising the core components of the intervention, and they have also adapted how they interact with the children during the classes, as well. Additionally, to address the location issue, the program has expanded to multiple community locations from the initial program site.

Policy and practice implications

One of the most important policy and practice implications of the present study is that in order to serve diverse populations in the community, programs need to have the ability to adapt to serve the specific needs of the community. Implementing a program "out of the box" may not serve the diverse needs of the community. Additionally, programs need to be sustained by funds, whether provided directly by the organization through reimbursement mechanisms such as Medicaid, or through public or private funders. Funders should have flexible policies that allow community-based programs to use funds to address participant needs, such as provision of childcare and food. Providing these items facilitates the feasibility of implementing the program in the community and assists with meeting the needs of the participants so that they are able to invest in their child's development.

Limitations

It is important to consider the limitations of this study while interpreting the findings. Due to the qualitative nature of the analysis, these findings may not be generalizable to all community-based programs or populations. The participant interviews were primarily conducted to identify lasting program benefits. These interviews occurred approximately a year earlier than the program leadership and staff interviews. Due to the continuous quality improvement process used by the program leadership and staff, adaptations to the program had already addressed some of the barriers identified by the participants during the interviews. An example of this is the barrier of transportation and location; at the time that the participants were a part of the upWORDS program, the program was only delivered at one site and has since expanded to over 20 sites in the community. Also, the participants graduated from the program between 6 months to a year prior to the interview, so they might have had difficulty in recalling their specific experiences of participating in the program. Additionally, the participants interviewed were all taught by the original SLP facilitators. With the expansion to the community, full-time facilitators were hired, and the community-based participant experience may be different from those who were interviewed. Further research should be conducted with participants from various community-based program sites to further inform and improve the implementation of the program. This research with community-based program participants may inform cultural barriers or cultural implications and differences in the program and curriculum, which were not investigated in the current participant study.

Conclusion

Successful implementation and growth of community-based programs often requires going beyond the curriculum to form supportive and trusting relationships for addressing the needs of the population being served. While essential program elements should be maintained, soft skills such as responsive relationships and building trust should be included in training for program staff. These processes require intentional and continuous evaluation to ensure that the core components of the program are maintained while allowing for adaptation and program enhancements.

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