

Lessons and Impacts of a Remote Early Childhood Education Program in Hard-to-Access Settings in Lebanon: A Randomized Controlled Trial¹

This study, led by Global TIES for Children at New York University, is the first evaluation of a remote early childhood education (ECE) program for families affected by conflict and crisis and the second of the effect of short-term (shorter than 3 months) ECE programming. It evaluates the impact of an 11-week remote early learning program (RELP) delivered alone and in combination with Ahlan Simsim Families (ASF), a parenting support program. The study population is Syrian (96%) and Lebanese (4%) caregivers with 5-6 year-old children in hard-to-access areas of Lebanon where there is little to no other access to ECE. RELP and ASF were implemented by the International Rescue Committee (IRC) in partnership with Sesame Workshop as part of the initiative called Ahlan Simsim ("Welcome Sesame" in Arabic)². The IRC and Sesame Workshop also collaborated on the research. We conducted both causal impact analyses (comparing the program models, RELP and RELP + ASF, to a waitlist control group) and an embedded qualitative study with teachers, caregivers, and program staff.

KEY TAKEAWAYS

- RELP and RELP+ASF³ had significant positive impacts on emergent literacy and numeracy and overall child development as well as on child play. RELP had significant, positive impacts on social-emotional and motor skills.
- The size of the impacts found on child development is in the range of those seen in evaluations of in-person preschool from around the world, suggesting that RELP is a viable alternative to support children in places where in-person preschool is not feasible⁴.
- The positive impacts of this study directly challenge two strong beliefs in the field of ECE: 1) that remote models do not work for children so young, and 2) that caregivers with low education and literacy levels cannot be successfully engaged in early learning. This program worked equally well for caregivers of all educational and literacy levels.
- Despite caregivers reporting a change in their understanding of the importance of play for their children during qualitative interviews, we found no quantitative impacts on caregiver beliefs about learning through play and social-emotional learning (SEL)⁵.



- Similarly, although caregivers from both treatment arms said that the program bolstered their own and their children's well-being and helped to offset the negative effects of the economic and political crises in Lebanon, we did not find any quantitative impacts on parenting stress; parenting self-efficacy; or caregiver depression and anxiety symptoms.
- RELP+ASF did reduce caregiver reports of children being spanked in the last month, a finding driven largely by caregivers of male children⁶.
- Our findings suggests that critical components of the program's success include:
- Despite no in-person interactions, both programs generated strong relationships between caregivers and teachers, teachers and children, and (for RELP+ASF) caregivers and ECD facilitators.
- Teachers and ECD facilitators all had prior ECE experience, were trained in the programs, and received ongoing supervision, peer support, and coaching throughout the program.
- Teachers and ECD facilitators were extremely flexible and adaptable in scheduling and delivery.

- Caregivers showed strong commitments to the program, overcoming many barriers posed by the wider crises, such as electricity cuts.
- RELP was framed by IRC as schooling and discussed by caregivers as schooling, which may explain some of the high level of commitment to completing all of the activities, with many members of the child's family participating to make sure they were done. Teachers also asked caregivers to send in pictures and videos of the child completing the activities and reported that caregivers went above what was required to do this.
- RELP is a multimedia program: families were given supplies and worksheets to use in the activities with their children; teachers used WhatsApp to send parents multimedia content to complement the audio calls; and calls began with 5 minutes of time for teachers to greet children directly, during which caregivers were welcomed (but not required to) turn on their videos.
- The cost of RELP is in the range of other ECE programming and lower than most in-person programs⁷ and would likely be notably lower if implemented at a higher scale

BACKGROUND

Given mounting evidence of the importance of investing in early childhood development globally⁸, NGOs, scholars, and civil society have called for increased investment in both early learning programs and programs to support caregivers⁹. High-quality early childhood education (ECE) can boost learning and social-emotional skills¹⁰; increase grades of schooling and primary school completion¹¹; and decrease grade repetition in primary school^{12, 13, 14}. The United Nations formally recognized ECE as a key sustainable development goal in 2015, and dozens of countries now include ECE in their national early childhood policies¹⁵.

Despite all this, around half of children in this age range, globally, do not have access to pre-primary education. These numbers disproportionately include low-income and conflict or crisis-affected contexts, where as many as 80% of children cannot access ECE programs¹⁶.

The case for remote and short-term ECE opportunities

For conflict-affected, highly mobile, or otherwise hard-to-access communities, it is not always possible to offer in-person ECE programs. However, for children ages 3 to 5 years, remote alternatives to in-person programs have widely been considered implausible, given developing attention spans and regulatory skills at these ages¹⁷. Thus far, the body of evidence about alternative ECE solutions is limited, though there is some evidence that simply shifting schooling to being online without other adjustments is not a good approach¹⁸. Instead, solutions for this age group should prioritize hands-on engagement, play, and direct interaction, which, for remote programming, means a much larger role for caregivers and family members.

There is evidence that caregivers and family members can successfully support ECE programs from in-person caregiver-mediated ECE evaluations (e.g., ECE programs run by mothers' groups before the work day begins in Cambodia; home-based ECE programming in Turkey and Ethiopia)^{19, 20, 21, 22}. There is also evidence that remote programming, albeit not ECE-focused, targeting caregivers can positively affect child outcomes^{23, 24}.

In seeking to increase access to ECE, it is critical that we find effective ECE programs that are shorter, cheaper, and potentially more scalable than full-year, in-person options. While it is generally agreed that full-year

programming is preferable, in many contexts there are not the resources, political will, and/or opportunities (e.g. highly mobile families) to provide full-year pre-primary programming. There is also value in understanding the possible impact of short-term programming that could be used for children very close to beginning primary school.

Syrian refugee context in Lebanon

Since 2011, the Syrian crisis has displaced millions of Syrians, with many seeking refuge in neighboring countries, including Lebanon. Lebanon has long faced challenges with governance²⁵, resulting in high unemployment rates and poor public-service provision²⁶. The influx of refugees put more pressure on the country's already strained systems. This left refugees largely reliant on humanitarian aid to access basic services. Starting in late 2019, Lebanon faced a series of systemic shocks that significantly disrupted life for all of its residents, including protests, an economic and financial crisis, lockdowns due to the COVID-19 pandemic, and an explosion in the port of Beirut. By 2021, 82% of the Lebanese population was living in multidimensional poverty (deprived in one or more dimensions: education, health, public utilities, housing, assets and property, employment and income)²⁷. Given triple-digit inflation, by February 2023, the local currency had lost 98% of its value against the U.S. dollar. The overarching economic crisis in Lebanon has been described as "among the worst economic crises globally since the mid-nineteenth century"28.

The crisis has strained all sectors in Lebanon, including education. The combined influx of refugees and the effects of the economic crisis have increased the demand for public and tuition-free schooling²⁹. Given the limited capacity of the public-school system to satisfy the demand for formal public education, the international aid community has provided non-formal schooling programs that have proved crucial for refugee children's education³⁰. The potential demand for ECE among Syrian refugees is high, globally. Of all Syrian refugees registered worldwide, 1 in 10 are children under the age of five³¹. Earlier in the Syrian refugee crisis in Lebanon, the Lebanese government had ordered non-Lebanese children to get preschool certification to enroll in primary school, though this requirement ended in fall 2022.



PROGRAM DESCRIPTION

The programs evaluated in this study targeted children aged 5 (or recently turned 6) and their caregivers in four regions in Lebanon: the Bekaa, Baalbek, Tripoli, and Akkar. The program ran for 11 weeks in mid-2022. This study was designed to test the program in hard-to-access regions in order to capture impacts in areas with limited in-person services, most likely to need remote services post-pandemic.

Remote early learning program (RELP)

The remote early learning program (RELP) was created by the IRC during the pandemic for children 3–6 years-old. Its content and aims are based on existing in-person ECE programs. In adapting these for remote delivery, staff sought to keep the core components of the preschool curriculum, which focused on social and emotional learning and school readiness skills, in a way that would remain engaging for the children. What emerged was a program that involves minimal direct teacher-child time and instead focuses on teachers supporting caregivers to implement key ECE activities at home with their children.

For RELP, parents were grouped into remote classrooms of 5–6 caregivers/children and met in group calls 2–3 times a week for 11 weeks. This program is intentionally shorter than typical school programming because in under-resourced, conflict-affected, and refugee settings

it is not always possible to run full-schoolyear programming³².

Each classroom was led by an ECE-trained teacher, each of whom was responsible for 10–12 classrooms. Calls were scripted and took 35–40 minutes each. Children usually joined the first five minutes of calls (typically with videos on), but the rest of the call was audio-only to ease data/connection concerns. The calls focused on discussions between the teacher and the caregivers about the ECE activities and how the activities support child development.

Caregivers were sent learning kits at the start of the intervention that included the materials (e.g., worksheets, storybooks, arts and crafts supplies, and stationery) needed for any activities that could not be done with common household items. Teachers also sent links to caregivers via WhatsApp which included engaging and interactive videos, games, pictures, and information on the importance of early childhood development (ECD). The RELP sessions included a total of 180 activities. Sixty-three of the activities included multimedia content produced as part of the Ahlan Simsim initiative — 43 videos, 8 storybooks, and 7 songs. To confirm that children did activities, teachers asked caregivers to share Whatsapp messages with photographs or short videos of children completing activities. The program also included regular individual follow-up calls with parents, as needed.



Ahlan Simsim Families (ASF)

As part of the study design, approximately half of the families who participated in RELP also participated in a parenting support program called Ahlan Simsim Families (ASF). ASF is a broader, remote parenting support program designed for caregivers in Lebanon, Jordan, Syria, and Iraq. It focuses on ECD more generally³³, with topics falling under three categories: responsive relationships, early learning, and safety and security. During the 11 weeks of RELP, in the RELP+ASF treatment arm, the same groups of 5-6 caregivers met for one additional session per week with an ECD facilitator in a Whatsapp group call. Eight of these sessions were considered mandatory, and three were optional, though there were no penalties for missing any. Each session lasted 25-30 minutes. In between sessions, facilitators also shared, via WhatsApp, caregiver-focused multimedia content, designed by Sesame Workshop and IRC, including 15 videos and one poster.

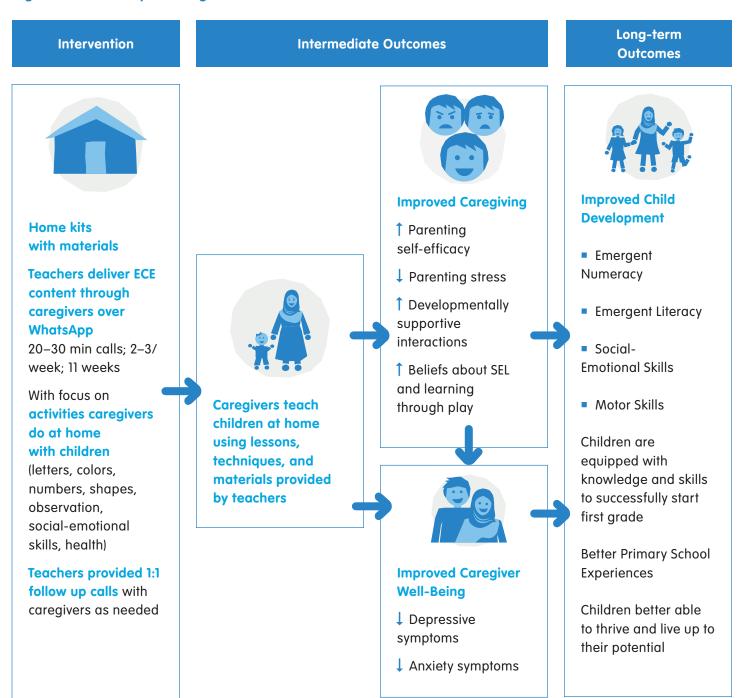
Context requirements

Despite economic and political crises in Lebanon, certain aspects of this context made it more conducive to this programming than other contexts might be. First, there is sufficient smartphone access — around 90% of Syrian refugees in Lebanon have internet access on a mobile phone, either their own or one they can borrow³⁴. Unlike some countries in the region, Lebanon permits the use of WhatsApp. Also, despite frequent electricity outages, most families found ways to charge their phones, though many had to go to great lengths to do so. The program also provided families with monthly data bundles to help offset data costs. Still, many families, especially those with limited wifi access, reported using more data than these bundles provided to participate in the program. To replicate this program in other contexts, these elements need to be present. Without these elements, implementers might modify the program to work without them. For example, options such as solarpowered tablets with pre-loaded storybooks, videos, and other content might work in places with lower access to electricity or smart phones.

PROGRAM THEORY OF CHANGE

The theory of change for the RELP program is that the activities, learning materials, and guidance of teachers during classroom calls would allow caregivers to effectively teach children at home and, through this, improve parenting measures, caregiver well-being, and child development / early learning outcomes.

Figure 1: RELP Theory of Change



Given the demand RELP placed on caregivers compared to in-person ECE, we hypothesized that the addition of Ahlan Simsim Families would have added benefits for caregiver beliefs, practices, and well-being that would also contribute to improving child development.

RESEARCH DESIGN AND METHODS

In our impact evaluation of this programming, we examined the impacts of both RELP on its own and RELP+ASF as compared to a waitlist control group (which did not receive any services during the study).

Research Questions

- What are the impacts of the RELP and the RELP+ASF, relative to the control group (and to each other) on:
 - child development³⁵
 - o parenting³⁶
 - caregiver well-being³⁷?
- Are any of the above impacts moderated by

child gender, family nationality (Syrian, Lebanese), caregiver educational background/literacy, socioeconomic status, whether households are nuclear or extended families, or the baseline levels of the key outcome in question?

- What are the engagement levels of caregivers with RELP and RELP+ASF?
- What are the costs of RELP and RELP+PSP and which costs are borne by the implementing organization and which by caregivers?

Design and methods

The impact evaluation was a three-arm randomized controlled trial evaluating RELP (treatment arm 1) and RELP+ASF (treatment arm 2) compared to a wait-list control group³⁸. The findings are primarily based on quantitative data collected at two points in time from 1,606 eligible families, 96% of whom are Syrian refugees:

Baseline data were collected between mid-January 2022 and the start of the program at the end of March 2022. Two main tools were used: a caregiver survey and a direct assessment of child outcomes known as the International Development and Early Learning Assessment (IDELA)³⁹. Both were administered over the phone, using video calls for IDELA⁴⁰. The survey was used to answer questions about child play, parenting, and caregiver well-being while the IDELA was used to assess child development.

Endline data were collected in June and early July 2022, during the three weeks after program completion. The same caregiver survey and remote IDELA adaptation were administered at endline.

Across the course of the study, we conducted an embedded, multi-phase qualitative study in the form of interviews and focus group discussions (FGD) with teachers, ECD facilitators, and caregivers in all three study arms; FGDs with data collectors; and interviews with key program and research staff. These additional data provided insight into participant experiences of the program; the contextual challenges in Lebanon; time and other resource allocation; data collection processes and decisions; and the quality of the intervention.

STUDY FINDINGS

Below we summarize the findings for each research question.

Impacts of RELP and RELP+ASF, relative to the control group and to each other, on:

Child development

Compared to the control group, for RELP, we found significant impacts on all six child outcomes measured for this intervention: overall child development, emerging literacy, emerging numeracy, motor skills, social-emotional skills, and child play. For RELP+ASF, we found significant impacts on four of the six: overall development, emergent literacy, emergent numeracy, and child play.

The size of the impacts, statistically, are fairly large⁴¹. Impacts are smaller when looking at RELP+ASF for all but child play⁴². The difference between RELP and RELP+ASF, however, was not statistically significant. Overall, these suggest that the intervention had significant positive effects on child development and child play for both RELP and RELP+ASF, compared to the control group.

Findings also point to what outcomes may be more or less easily targeted through this approach. Impacts were higher for numeracy and literacy than for social-emotional and motor skills. This could reflect caregiver preferences as to which activities were worth spending more time on or it could reflect what was easier to teach remotely. It could also mean that in-person peer interactions are likely a critical component of social-emotional learning.

There are a number of factors that we believe, based on our qualitative research, contributed to these programs having such robust impacts:

- The RELP program was adapted from in-person programming with specific attention paid to key components of successful ECE. Namely, it focused on a) maintaining child engagement through caregiver-mediated, in-person, hands-on, and play-based activities, while b) still introducing an element of child connection with the remote teachers via the first five minutes of each call. This was enabled, in part, through a) teacher training in delivering remote programming and working with caregivers and b) providing caregivers with physical and multimedia materials for use outside of the scheduled phone calls to increase engagement and interactivity.
- From registration onwards, the implementing organization clearly presented RELP as an early childhood educational program. That is, it was framed as school, not as a program for caregivers or to improve parenting (as is the case for many programs asking caregivers to do certain activities with their children). All the key activities were presented as activities children needed to do as part of their education, with notes on how caregivers and families could support the child in doing those. Asking parents to provide 'proof' of activity completion, by way of sharing photographs or videos, likely further highlighted that this was a school, with assignments, as opposed to recommended activities for optimal parenting. Qualitative data suggests that this framing influenced how caregivers engaged with RELP and the diligence with which they completed assigned activities.
- The programs were implemented with high levels of flexibility and adaptability for teachers, ECD facilitators, and caregivers. Teachers and ECD facilitators reported rescheduling calls as needed, adapting their messaging

- to accommodate caregiver needs (e.g. voice notes when caregivers had low literacy), and following up with families struggling with the material. Caregivers reported going up to their roof to get signals, charging smartphones at neighbors' homes, borrowing extended family members' phones, and paying for additional internet data themselves in order to allow the children to continue watching the videos and to send in more documentation of children doing various activities. This commitment by all parties to provide learning opportunities for the children in the program was profound, especially given the huge range of challenges teachers, ECD facilitators, and caregivers faced in their day-to-day lives, such as financial insecurity, limited access to healthcare, power cuts, and poor connectivity. The potential downside of this flexibility, however, was that some teachers said they wound up taking calls throughout the day and even late at night in ways that might negatively affect their personal lives. Therefore, it is crucial for the program in the future replications to provide guidance and support to balance flexibility with manageable working schedules.
- Teachers had at least one year of prior ECE experience and received additional training prior to the program start on how to engage caregivers through phone calls and how to guide caregivers to do activities with children. Supervisors provided support to teachers and regularly listened to calls to provide feedback and coaching. Teachers also conducted regular remote meetups with other teachers to discuss experiences and how to deal with challenges. Qualitative data showed that teachers were, possibly because of this training and support, able to establish strong relationships with caregivers and children despite the lack of in-person interactions.

Parenting

We found statistically significant, large impacts for RELP and for RELP+ASF⁴³ for increasing early learning interactions between caregivers or other family members and the children.

We found no statistically significant quantitative impacts on other parenting outcomes, including beliefs about play measures, beliefs about SEL, parenting stress, or parenting self efficacy for either RELP or RELP+ASF. We had anticipated greater endorsement and support for social-emotional learning and learning through play as a result of caregivers' intense interactions with this play-based ECE programming. Though we did not find this quantitatively, caregivers did report these beliefs qualitatively. Our lack of impact findings here may reflect a need for a better and more sensitive measure of these beliefs that can detect smaller incremental changes than the measure that was created for this study.

Additionally, we found a statistically significant impact on caregivers reporting that no one in the household had spanked the child in the past month for RELP+ASF (but not RELP) when compared to the control group, such that RELP+ASF caregivers were twice as likely to say this.

As with our child outcomes, none of the above findings were significantly different between RELP and RELP+ASF (including the reduction in spanking).

Caregiver well-being

We found no quantitative impacts on caregiver depression or anxiety symptoms for either RELP or RELP+ASF compared to the control group (or in comparing the programs to each other). In qualitative interviews caregivers did report that engagement with the RELP and RELP+ASF supported both their own and their children's mental well-being, which they felt helped offset some of the distress caused by the recent financial crisis, poor economy, and extreme inflation in Lebanon.

Impacts by demographic characteristics

Results were not found to differ by caregiver educational background and literacy level, socio-economic status (SES), whether the household was a nuclear or extended family, or the baseline levels of the key outcomes⁴⁴. This means that the programming in this evaluation was found to be equally effective for Syrians and Lebanese as well as nuclear and extended families; when implemented with caregivers with high and low education, high and low literacy, and differing SES levels; and for those with higher or lower baseline child development, reported child play, and reported learning interactions with someone over the age of 12 in the household. We did find one moderation effect by child gender indicating that the reduction in spanking occurred more strongly within families of male children (and, indeed, for male children only RELP alone also significantly reduces spanking). Child gender did not moderate any other outcomes.

Engagement level of caregivers

Attendance in the RELP was comparable for both treatment arms (those receiving and those not receiving ASF at the same time). On average, caregivers attended 69% (21/31) of the RELP sessions for the RELP arm and 71% (22/31) of the RELP sessions for the RELP+ASF arm. Caregivers also either spoke during the group call or sent in an example of completing an ECE activity associated with that call (or both) for 72 and 73% of the RELP calls, respectively. RELP+ASF families attended 94% of the ASF sessions (10.33 out of 11) on average.

RELP+ASF caregivers reported slightly less time per week doing the ECE activities assigned in the RELP program (see caregiver costs below).

Costs of RELP and RELP+ASF

Led by the Center for Benefit-Cost Studies of Education at University of Pennsylvania and the Best Use of Resources team at IRC, this study used the ingredient approach to conduct a cost-effectiveness analysis of RELP and RELP+ASF relative to the no-services control condition. Costs to IRC were based on several categories of implementation costs, including core program staff, nonstaff personnel (teachers and ECD facilitators), materials, phone/internet plans for participant caregivers, and operational costs. Costs incurred by caregivers were determined as a function of the time they committed to the program, both in intervention phone calls and in carrying out intervention activities with their children. To monetize the opportunity costs of this time, we used a weighted (pre-inflation) minimum wage for Lebanese workers and Syrian refugee workers⁴⁵. A breakdown of average caregiver time between RELP and RELP+ASF is provided in the table below.

Caregiver Report of Average Time Spent on Program Activities			
	RELP	RELP + ASF	
PELD calls (minutes (call)	21.2	31.6	

RELP calls (minutes/call)	31.3	31.6
RELP calls per week	3.1	3
1:1 follow up calls (minutes/week)	12.8	13
Calls per week	1.2	1.1
ECD activities (minutes/week)	47.9	42.4
Frequency per week	2	2
ASF calls (minutes/week)	-	25.5
Calls per week	-	1.4
ASF activities (minutes/week)	-	25.5
Total time over full 11 weeks	38.2 hours	46.8 hours



The cost to the IRC to implement the programs was \$260 per child for RELP child and \$550 per child for RELP+ASF. Including costs to caregivers, program costs were estimated at \$310 per child for RELP and \$610 per child for RELP+ASF (with caregiver time representing 17% and 10% of those costs, respectively). The cost per child would likely be lower (for implementation costs) were the program to be implemented to more children at once.

These costs reflect the value of delivering RELP and RELP+ASF programs; they do not reflect the cost of producing the curriculum or multimedia materials. The implementation of ASF required significant IRC staff time to implement and nearly doubled the cost per child, without any significant difference (and with smaller impacts overall) on child outcomes.

LIMITATIONS

This study is one of the first to use a remote version of the IDELA and the first to use this particular adaptation in an impact evaluation. While there are benefits to being able to assess child development remotely, the remote IDELA does involve caregivers in the direct assessment of children, and most caregivers mentioned that their instinct during baseline data collection was to help their children perform well on the tests. This was true in all three treatment arms. Data collectors reported a variety of ways that they dealt with caregiver helping behavior,

and we are fairly confident that caregiver helping did not differ by treatment arm at either baseline or endline. This does not, however, eliminate the possibility that this new modality of the IDELA could be introducing some bias into our analyses.

There is also the possibility that Syrian caregivers (who comprise the majority of our sample) were more motivated to participate and engage in the program than they might have been had this study been conducted at a time when they did not need ECE certification to enroll in primary school. Our qualitative data does not support this, and instead suggests that caregivers did not view the certification as the primary motivation for participating in the RELP. Many caregivers told us that they would have wanted this program either way and many others asked us to bring it back during primary school closures, which were ongoing during focus groups discussions.

CONCLUSION

This study presents promising evidence for how remote ECE can increase access to ECE in areas where in-person services are difficult or impossible to provide due to conflict, crisis, or geography. As a first evaluation of its kind and of this particular program, it will be important to replicate, adapt, and test the model in a variety of countries and contexts where in-person ECE is difficult to provide and access to ECE services is low.



RECOMMENDATIONS

Future research

- Include more robust and varied quantitative measures of child discipline, caregiver beliefs about play and SEL, and caregiver and child well-being to better test qualitatively reported influences on these outcomes⁴⁶.
- Where possible, use research designs that allow for assessment of longer-term impacts. Such work would allow exploration of whether RELP improves caregiver engagement with primary school teachers and children's future attendance, grades of schooling, school performance, and engagement and other behaviors at school. We also think some of the impacts of the ASF program may be better captured in longer-term follow-ups with families.
- Assess hybrid RELP/in-person programming that could allow areas where demand for ECE exceeds available classrooms to serve more children through a partly inperson, partly remote approach to ECE (e.g., 1–3 days a week in-person plus the RELP). Such an approach would require additional teaching staff but could be implemented without additional physical facilities.
- Assess the impact of remote ECE programming for 3–4 year-olds.

Future ECE programming

 Consider options to further support device, electricity, and data concerns for RELP such as larger monthly data bundles, alternative sources of electricity (e.g. solar power), or devices (phones or tablets) with predownloaded program content including worksheets, storybooks, and videos.

■ Explore alternative ways to support caregivers during RELP. Consider providing ASF or other parenting support before or after RELP, rather than offering both programs at once, or offering other types of caregiver support that are less time intensive for caregivers.

As the first study of a remote, short-term ECE program, our findings suggest that this kind of program, when thoughtfully implemented, has large potential for use in humanitarian and hard-to-access contexts, including areas with mobile/fleeing families, where teachers cannot be immediately deployed, where it is unsafe to travel to school, or where there is little infrastructure for in-person schooling. Such programs also present a way that caregivers, regardless of education or literacy level, can be engaged prior to and during the transition to school in supporting their children's growth and development. Qualitative findings indicate that caregivers are excited about and want more programming like this. They also indicate that, after an adjustment period to the new modality, teachers feel confident in their abilities to support learning and connect with children and caregivers through this new modality. In sum, this model of caregiver-mediated remote early learning may help address the global need for access to high-quality early childhood education in multiple countries and crisis-affected contexts.

References

- ¹ The content of this brief is drawn from two longer articles. The first focused on causal, quantitative data collected for this study and was authored by Kate Schwartz¹, Duja Michael¹, Lina Torossian², Diala Hajal², Hiro Yoshikawa¹, Somaia Abdulrazzak¹, Jamile Youssef², Phoebe Sloane², Siwar Hashwe³, Kim Foulds³, Brooks Bowden⁴, Kayla Hoyer², Sangyoo Lee⁴, Athena Haywood², and Jere Behrman⁴. The second, focused on findings from qualitative data collected for this study, was authored by Somaia Abdulrazzak¹, Duja Michael¹, Jamile Youssef², Lina Torossian², Ola Kheir², Diala Hajal², and Kate Schwartz¹ [where IGlobal TIES for Children Center at New York University; ²International Rescue Committee; ³Sesame Workshop; ⁴University of Pennsylvania]
- ² Ahlan Simsim is made possible by funding from the MacArthur Foundation. Additional support for this study was provided by the LEGO Foundation.
- ³ Impacts for RELP+ASF were notably smaller than for RELP alone, though not significantly so.
- ⁴ There are other benefits to in-person pre-school not captured here that should be considered when in-person ECE options are feasible.
- ⁵ Aside from impacts on reported child learning activities such as those included in the
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- $^{\rm 40}$ To our knowledge, this was the first time a remote version of the IDELA was used in an impact evaluation.
- ⁴¹ For RELP vs. control we find 0.45 effect size for overall child IDELA; 0.49 for literacy; 0.45 for numeracy; 0.36 for social emotional skills; 0.21 for motor skills; and 0.29 for child play.
- ⁴² For RELP+ASF vs. control, we found effect sizes of 0.26, 0.37, 0.32 for overall IDELA, literacy and numeracy and no impact on social emotional or motor skills. The effect size for child play was 0.35.
- 43 Effect sizes were 0.52 for RELP and 0.40 for RELP+ASF
- 44 We see this as a measure of society's aspirations for a lower bound pay of meaningful work while also recognizing that, post-inflation and other economic crises, this wage is out of range for most if not all of the families in this study currently.
- 45 We did not run moderation effects for Nationality because of lack of sufficient variation (94% of our sample was Syrian)
- 46 We did find quantitative impacts on child discipline, but this was done using a single item question about spanking. Ideally we would be able to test impacts on disciplinary practices more broadly.

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