Registry of Efficacy and Effectiveness Studies

Study Title:
Evaluation of IRC Lebanon Remote Early Learning and Caregiver Support Program

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Section I: General Study Information

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Study Start Date:

2022-03-01

Study End Date:
2022-10-30

Intervention Start Date:
2022-03-28

Timing of entry:
Prior to analysis of outcome data

Brief Abstract:
Even before the COVID-19 pandemic, the realities of many under-resourced and conflict-affected settings posed numerous challenges for in-person early childhood education (ECE) programming. Families migrate. Classroom spaces are scarce. Transportation to and from schools can be challenging to impossible. Schooling going remote during the pandemic only highlighted an already urgent need within humanitarian settings to understand how ECE can best be incorporated, implemented/adapted, and scaled given the myriad of challenges such settings pose (see Murphy, Yoshikawa, & Wuermli, 2018). Toward this end, there is a particular need to understand the efficacy of: 1) short-term, remote programming, which could be deployed when (or for families for whom) in person classes are not a viable option and in situations in which families are only present for a short period of time or only have a short window before the start of formal schooling; and, 2) two-generation programming, which seeks to support both children and primary caregivers simultaneously and may be particularly important for remote services when the caregiver is also the primary program implementer. This three-arm impact evaluation assesses the impact of a) an 11-week remote early learning program and b) the early learning program plus remote caregiver support as compared to a wait list control group who is not yet receiving any programming. Key outcomes include caregiver wellbeing, parenting self-efficacy, reported caregiver-child interactions, caregiver beliefs about play/learning through play, and child development.
As far as we are aware this is the first study to look at the efficacy of short-term, remote ECE programming delivered to caregiver-child dyads and one of the first in LMIC settings to causally assess short-term ECE programming at all (see Bonilla et al., 2019). If such programming is found to be effective, it could greatly change programs' ability to serve far flung, highly mobile, or otherwise difficult to reach families. It is also a model that is significantly more cost effective to both implement and scale than in-person classrooms. In addition, this study assesses the impact of additional caregiver support with a focus on the importance of ECD. A common phenomenon in ECE research (that policy and program makers alike struggle with) is that of caregiver pushback as teachers are trained in more developmentally appropriate play-based approaches, with caregivers seeing play as non-learning or "unstructured" time (see Kabay, Wolf, & Yoshikawa, 2017; Wolf, 2020). An early learning program with intensive hands-on caregiver involvement and play-based activities has the potential to help address this concern if found to alter caregivers' beliefs surrounding the value of play. Furthermore, there is potential benefit to first introducing children to ECE type activities in their own homes and with trusted adults and siblings/friends/cousins so that when beginning in-person learning (where so much is new) the activities are familiar and already beloved. This could have consequences for teacher-child and child-child interactions as well as classroom wide engagement.

Bonilla, J., Spier, E., Carson, K., Ring, H., Belyakova, Y., Brodziak, I. & Adelman-Sil, E.
(2019). Evaluation of the UNICEF Mozambique Accelerated School Readiness pilot programme: Final report. Washington, DC: American Institutes for Research.
https://www.air.org/sites/default/files/Mozambique-Early-Childhood-ASR-Program-Evaluation-December-2019.pdf

Kabay, S., Wolf, S., & Yoshikawa, H. (2017). 'So that his mind will open': Parental perceptions of early childhood education in urbanizing Ghana. International Journal of Educational Development, 57, 44-53.

https://doi.org/10.1016/j.ijedudev.2017.08.013

Murphy, K.M., Yoshikawa, H., & Wuermli, A.J. (2018). Implementation research for early childhood development programming in humanitarian contexts. Annals of the New York Academy of Sciences, 1419(1), 90-101. https://doi.org/10.1111/nyas.13691

Wolf, S. (2020). “Me I don’t really discuss anything with them”: Parent and teacher perceptions of early childhood education and parent-teacher relationships in Ghana. International Journal of Educational Research, 99, 101525.

Keywords:
Early childhood education; parenting support; remote learning

Comments:
-

Section II starts on the next page.

Section II: Description of Study

Type of Intervention:
Curriculum/Product, Practice

Topic Area of Intervention:
Early Childhood Education

Number of intervention arms:
2

Target school level:
Kindergarten

Target school type:
INGO remote programming, Rural

Location of Implementation:
International : Asia

Further description of location:
WhatsApp and phone-based programming for caregivers/families in remote/hard-to-reach, underserved (Syrian refugee and host) communities in Lebanon

Brief Description of Intervention Arm 1:
The first treatment arm (ELP) is receiving an 11-week early learning intervention based on Preschool Healing Classrooms (PSHC) in which children and caregivers have group calls in remote 'classrooms' of 5-6 child/caregiver dyads 3 times a week. Each 'classroom' is led by an ECE trained teacher. Calls are scripted and run for 20-30 minutes each. Each teacher runs 8-9 classrooms. They also hold regular individual follow-up video calls with caregiver/child dyads as needed, if caregiver/child dyads miss a group session or have specific questions or if the teacher notices anything that feels worth following up on. Teachers send links to caregivers via WhatsApp for resources, such as storybooks, games, worksheets, and information on the importance of early childhood development (ECD), and ask caregivers to photograph or videotape various activities as the children complete them.

Brief Description of Intervention Arm 2:
The second treatment arm (ELP+) is receiving the ELP programming (as intervention condition 1) as well as eight weekly caregiver support meetings (also over WhatsApp and with the same group of caregivers) with an ECD Facilitator. These meetings focus on the importance of ECD, behavior management and parenting, caregiver coping and wellbeing, and their own and children's stress along with some ideas of coping with both.

Brief Description of Comparison Condition:
The control condition receives the ELP programming after endline data collection (waitlist control design). During the implementation of the study, the control group does not receive any ECD programming, but IRC staff will be in touch with them more than once to keep them engaged and reduce differential attrition.

Comparison condition:
Business-as-usual

Comments:

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Section III: Research Questions

Confirmatory research questions:

Question 1:

What are the impacts of ELP (and ELP+), each relative to a control group who receives no programming, on child development targeted by the program across early literacy, early numeracy, and social/emotional domains (as measured by the remote IDELA)?

Question 2:

What are the impacts of ELP (and ELP+), each relative to a control group who receives no programming, on parenting: caregiver reported perceptions/beliefs about play, learning through play, child social/emotional learning?; caregiver reported interactions with the child (e.g. frequency of developmentally supportive interactions and activities); parenting stress; parenting self-efficacy?

Question 3:

What are the impacts of ELP (and ELP+), each relative to a control group who receives no programming, on caregiver wellbeing (i.e., depression, anxiety)?

Question 4:

What are the impacts of ELP+ compared to ELP on caregiver wellbeing (i.e., depression, anxiety)?

Exploratory research questions:

Question 1:

What are the impacts of ELP compared to no programming on motor development and overall child development (as measured through remote IDELA)?

Question 2:

What are the impacts of ELP compared to no programming on caregiver approaches to discipline?

Question 3:

What are the impacts of ELP+ compared to ELP on all outcomes other than caregiver wellbeing?

Question 4:

What do teachers identify as the supports needed to successfully carry out a program such as this? What challenges do they identify? What role does teachers' working space (e.g., home vs office) seem to play in views of the program (challenges and opportunities)?

Question 5:

What role do caregiver living arrangements seem to play in caregiver perceptions of program and/or in program impact itself (as a moderator)?

Question 6:

Are impacts on any of the above moderated by child gender, family nationality (i.e., Syrian, Lebanese), caregiver/parent educational background, household resources, or baseline level of the key outcomes (e.g., baseline parenting, baseline depression)?

Comments:

Within each domain/bucket, adjustment will be made for multiple hypothesis testing using false discovery rate (FDR)

q-value adjustments

Section IV-A: Study Design (Selection)

Study Design:
Randomized Trial (RT)

Comments:
Individual level randomization with clustering (due to program delivery) only in the treatment groups.

Section IV-B: Study Design (Input)

Study Design: Input

Unit of random assignment of intervention:
Student

Assignment within sites or blocks:
No

Probability of assignment to treatment:
0.31 for ELP and 0.31 for ELP+

Unit outcome data measured:
Student

Intermediate clusters between unit of random assignment and unit of measurement:
Yes

Description of intermediate clusters:
program is delivered within WhatsApp groups (virtual classrooms) of 5-6 caregiver/child dyads with one teacher or ECD Facilitator per group

Comments:
The design is a partially nested randomized controlled trial (pnRCT) with individual level randomization. Caregiver/child dyads are individually randomized into one of the three arms (control, ELP, and ELP+). Teachers deliver the program to the treatment subjects in virtual classrooms of 5-6 caregiver/child dyads, and each teacher leads around 8-9 classes, so the treatment groups have classroom and teacher level clustering, whereas the control group has no clustering.

Design Classification

Based on the responses above, this study has been classified as:
RT: 1-level

Section V: Sample Characteristics

Approximate number of students in the comparision condition: 591

Approximate number of students in the intervention condition1: 514

Approximate number of students in the intervention condition2: 501

Were there certain students that were targeted for the study?
Yes - Born between Feb 1, 2016 and Jan 31, 2017 (~5 years old at program start); not enrolled in school; Arabic speaking (and able to be communicated with in Arabic, i.e. no severe hearing disabilities that would make this program not applicable); residing in Lebanon; has a reachable phone number.

Were there certain students that were excluded from the study?
Yes - Those who were enrolled in formal education at the start of the program

Comments:
-

Section VI: Outcomes (Input)

Confirmatory question 1: Outcome Measure 1

Outcome domain: Student Social, Emotional, & Behavior - IDELA literacy, numeracy, and social-emotional subscales
Minimum detectable effect size: 0.198
Outcome measure: Early literacy - IDELA
Scale of outcome measure: Continuous
Normed or state test: No
Test-retest reliability: N/A
Internal consistency: N/A
Inter-rater reliability: N/A
Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 1: Outcome Measure 2

Outcome domain: Student Social, Emotional, & Behavior - IDELA literacy, numeracy, and social-emotional subscales
Minimum detectable effect size: 0.198
Outcome measure: Early numeracy - IDELA
Scale of outcome measure: Continuous
Normed or state test: No
Test-retest reliability: N/A
Internal consistency: N/A
Inter-rater reliability: N/A
Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 1: Outcome Measure 3

Outcome domain: Student Social, Emotional, & Behavior - IDELA literacy, numeracy, and social-emotional subscales
Minimum detectable effect size: 0.198
Outcome measure: Social/emotional - IDELA
Scale of outcome measure: Continuous
Normed or state test: No
Test-retest reliability: N/A
Internal consistency: N/A

Inter-rater reliability: N/A

Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 2: Outcome Measure 1

Outcome domain: Student Outcome Domain - Parenting

Minimum detectable effect size: 0.198

Outcome measure: Caregiver reported perceptions/beliefs about play and learning through play (created for this study)

Scale of outcome measure: Continuous

Normed or state test: No

Test-retest reliability: N/A

Internal consistency: N/A

Inter-rater reliability: N/A

Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 2: Outcome Measure 2

Outcome domain: Student Outcome Domain - Parenting

Minimum detectable effect size: 0.198

Outcome measure: Caregiver reported perceptions/beliefs about child social/emotional learning (created for this study)

Scale of outcome measure: Continuous

Normed or state test: No

Test-retest reliability: N/A

Internal consistency: N/A

Inter-rater reliability: N/A

Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 2: Outcome Measure 3

Outcome domain: Student Outcome Domain - Parenting

Minimum detectable effect size: 0.198

Outcome measure: Caregiver reported interactions with the child (modified from the Family Care Index of the UNICEF MICS)

Scale of outcome measure: Continuous

Normed or state test: No

Test-retest reliability: N/A

Internal consistency: N/A

Inter-rater reliability: N/A

Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 2: Outcome Measure 4

Outcome domain: Student Outcome Domain - Parenting

Minimum detectable effect size: 0.198

Outcome measure: Parenting stress scale (NYU Global TIES adaptation)

Scale of outcome measure: Continuous

Normed or state test: No

Test-retest reliability: N/A

Internal consistency: N/A

Inter-rater reliability: N/A

Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 2: Outcome Measure 5

Outcome domain: Student Outcome Domain - Parenting

Minimum detectable effect size: 0.198

Outcome measure: Parenting self-efficacy (NYU Global TIES adaptation)

Scale of outcome measure: Continuous

Normed or state test: No

Test-retest reliability: N/A

Internal consistency: N/A

Inter-rater reliability: N/A

Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 3: Outcome Measure 1

Outcome domain: Student Outcome Domain - Caregiver wellbeing

Minimum detectable effect size: 0.198

Outcome measure: Depression (PHQ-8)

Scale of outcome measure: Continuous

Normed or state test: No

Test-retest reliability: N/A

Internal consistency: N/A

Inter-rater reliability: N/A

Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 3: Outcome Measure 2

Outcome domain: Student Outcome Domain - Caregiver wellbeing

Minimum detectable effect size: 0.198

Outcome measure: Anxiety (GAD-7)

Scale of outcome measure: Continuous

Normed or state test: No

Test-retest reliability: N/A

Internal consistency: N/A

Inter-rater reliability: N/A

Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 4: Outcome Measure 1

Outcome domain: Student Outcome Domain - caregiver wellbeing

Minimum detectable effect size: 0.198

Outcome measure: Depression (PHQ-8)

Scale of outcome measure: Continuous

Normed or state test: No

Test-retest reliability: N/A

Internal consistency: N/A

Inter-rater reliability: N/A

Same outcome measure in treatment and comparison groups: Yes

Confirmatory question 4: Outcome Measure 2

Outcome domain: Student Outcome Domain - caregiver wellbeing

Minimum detectable effect size: 0.198
Outcome measure: Anxiety (GAD-7)
Scale of outcome measure: Continuous
Normed or state test: No
Test-retest reliability: N/A
Internal consistency: N/A
Inter-rater reliability: N/A
Same outcome measure in treatment and comparison groups: Yes

Section VII: Analysis Plan

Baseline data collected prior to start of intervention:
Yes

Description of baseline data:
Baseline version of outcome variable plus key demographic questions from caregiver survey (SES, child gender, family nationality, household resources, caregiver and child physical health, caregiver social support)

Covariates you plan to include in the model:
Gender, Caregiver physical health, Caregiver social support, Child physical health, Family nationality, Household resources, SES, Student Pretest

Analytic model:

See attached document (Analysis Plan_prereg)

Plan to handle cases with missing outcome data:
We anticipate both some (though likely minimal) item level missingness as well as potentially high levels of attrition from the study (given the context and population). For any baseline missing values or item level missing values at endline we will use multiple imputation (100 datasets) to account for the missing data. For cases in which the caregiver-child dyad has left the study we will first compare baseline levels of key variables (both baseline measures of outcome variables and the list of key covariates above) to see if the attriters appear to be significantly different from the stayers. We will also compare to see if attrition differs by treatment assignment. If there do not appear to be any meaningful differences we will also impute missing endline data. If there does appear to be differential attrition by treatment assignment or on key covariates, then we will run analyses both on an analytic sample of stayers and on a full sample with imputed endline data and compare results.

Planned multiple comparisons adjustment, confirmatory question 1 (Student Outcome Domain):
Yes

Number of planned comparisons to adjust, confirmatory question 1 (Student Outcome Domain):
3

Correction for multiple comparisons, confirmatory question 1 (Student Outcome Domain):
other

Planned multiple comparisons adjustment, confirmatory question 2 (Student Outcome Domain):
Yes

Number of planned comparisons to adjust, confirmatory question 2 (Student Outcome Domain):

8

Correction for multiple comparisons, confirmatory question 2 (Student Outcome Domain):
other

Planned multiple comparisons adjustment, confirmatory question 3 (Student Outcome Domain):
Yes

Number of planned comparisons to adjust, confirmatory question 3 (Student Outcome Domain):
2

Correction for multiple comparisons, confirmatory question 3 (Student Outcome Domain):
other

Planned multiple comparisons adjustment, confirmatory question 4 :
Yes

Number of planned comparisons to adjust, confirmatory question 4 :
2

Correction for multiple comparisons, confirmatory question 4 :
other

Comments:
-

Section VIII: Additional Information

Links:
No links have been added yet.

Files:
File Name: Analysis Plan_prereg.docx
Description:

Comments:
-