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Effectiveness of a community-led shared book reading intervention in Syrian refugee children: a randomised controlled trial

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Community-led, shared book reading programs may help improve refugee children's reading abilities and attitudes towards reading. We Love Reading (WLR)—a light-touch, community-led, shared book reading program—was evaluated in a pre-registered, wait-listed, randomised controlled trial (AEARCTR-0006523). 322 Syrian refugee mother-child dyads (children: 4–8-year-olds, 50.0% female) in Jordan were tested at two timepoints, 15 weeks apart. WLR did not significantly affect child literacy or child-reported child attitudes toward reading ($ps > 0.05$). Mothers did report improved child attitudes toward reading from WLR ($p = 0.046$, $\eta^2 = 0.013$). The intervention did not lead to improvements in family relationships ($ps > 0.05$). WLR may have promise in improving attitudes toward reading in forcibly displaced children but did not affect literacy or child-reported attitudes toward reading; these results provide insight into what changes are needed for effective shared book reading interventions in this population.

More than 1% of people worldwide are forcibly displaced¹, nearly half of whom are children². War and displacement create urgent challenges for children's survival, health, and development³. Even after fleeing the trauma of war or disaster, families often experience pervasive poverty, violence, discrimination, loss of social support, and lack of opportunities^{4–6}. Prior to the Syrian war, living conditions for Syrians had been improving, with a literacy rate of 86% and increases in schooling completion⁷. For those forced to flee, much of that progress has been lost. For example, Syrian refugee children in Jordan face large class sizes, under-resourced classes, and double-shifted schools^{8–10}.

Building community and family capacity to support child literacy may help children to overcome some of these learning disadvantages. Shared book reading or 'read-aloud' programs involve adults reading one-on-one or in a group with children. Shared book reading predicts improved attention, increased vocabularies, language and literacy skills, and executive functions in children, and also increases caregivers' feelings of competence and sensitivity [^{11–19}, although see^{20,21} for contradictory findings]. While effects of shared book reading programs tend to be small in non-displaced children^{17,22}, their relative simplicity and low costs appeal in situations where resources are scarce, like in forced displacement [e.g.²³]. Yet, to date, there have no empirical studies that rigorously evaluated shared book reading or read-aloud interventions among refugee children²².

We Love Reading

We Love Reading is a shared book reading intervention which was developed in Jordan and is implemented by the Taghyeer Foundation, led by co-author Dajani. We Love Reading was developed through a co-construction process in response to educational needs identified by the local community. It was designed to (1) promote children's love of reading, (2) empower participants to become changemakers in their communities, and (3) create a community mindset of "I can"²⁴. It involves people—mostly women—volunteering for, being trained in, and then delivering this read-aloud intervention. The volunteers are called We Love Reading 'ambassadors'.

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Upon completion of two days of training, ambassadors are given a set of books which were specifically designed for use in this intervention. Ambassadors then gather 6–10 children once per week for 12 or more weeks and read to them in a safe location, such as a home, mosque, or community centre. The ambassadors read at least one book to the children and can choose to read any of the books provided. The reading sessions vary in length, with most about 20–30 min. Children are recruited into We Love Reading groups through the ambassadors' networks. Each ambassador conducts the reading sessions on their own, with one adult per group of children. This is quite a light-touch intervention, delivered by lay members of the community, and—in contrast to many other shared book reading interventions²²—is not dialogic in nature. Most of the ambassadors are mothers, who read to their own and to neighbourhood children. Ambassadors read to the children without specifically discussing the content of the books; this format was developed in response to local concerns that discussing the content of the book may make children feel as if they are being tested and may therefore reduce their interest in reading. This non-dialogic approach was thus part of the co-constructed nature of the intervention and has consistently been the mode of delivery for We Love Reading. In this intervention, the theory of change is via attitudes toward reading, with We Love Reading proposed to directly improve attitudes toward reading and through this to promote literacy.

Previous work has suggested that We Love Reading may improve executive function²⁵, emotion recognition²⁶, knowledge of environmental issues²⁷, and reading practices²⁸ in refugee and non-refugee children, but no randomised controlled trials have been conducted [although see²⁹ for effects on adult volunteers]. A main goal of We Love Reading is “foster[ing] the love of reading among children so they can reap the benefits of reading”²⁴, and the program has been recognized by the UNESCO King Sejong Literacy Prize.

Research questions and hypotheses

In our evaluation, we ask: what are the effects of the We Love Reading program on literacy and attitudes toward reading (primary outcomes) and family relationships (secondary outcomes) among Syrian refugees in Jordan? While We Love Reading does not claim to influence literacy, we examined both child literacy and attitudes toward reading as our primary outcomes, because shared book reading interventions have been shown to be effective at promoting literacy²² and because by improving attitudes toward reading, we thought We Love Reading would have the potential to impact literacy. We hypothesised that children who took part in We Love Reading would have higher levels of literacy and more positive attitudes toward reading than those in the wait-listed control condition. Similarly, given that book sharing may improve caregiver sensitivity^{12,30} and taking a family systems approach^{31,32}, we hypothesised that families in the treatment group improve in terms of mother–child relationship quality, father involvement, and spousal relationship quality.

Methods

Design

We conducted a wait-listed randomised controlled trial (RCT) with Syrian refugee mothers and their children in Jordan to test the effect of the ‘We Love Reading’ programme on child literacy, child attitudes toward reading, and family relationships. We collected data from participants prior to taking part in the intervention (baseline, T1, Feb–May 2021) and immediately after the intervention (endline, T2, May–August 2021), 3.5 months apart. We preregistered the RCT with the AEA RCT Registry (AEARCTR-0006523, Date of initial registration: 13/10/2020, Updated: 27/10/2021; Supplemental File A, B). We also preregistered the analyses³³ and posted the data and study materials on the project OSF (<https://osf.io/gcv5z/>). We sampled 322 mother–child dyads, with the aim of achieving > 90% power to detect small-to-medium effects, as per²². We stopped collecting data when we had sampled ~ 320 participants.

Participants

We sampled 322 Syrian refugee mothers and one of their 4–8-year-old children ($n = 322$), living in Amman ($n = 236$, 73.3%) and Zaatari camp ($n = 86$, 26.7%). Mothers ranged in age from 20 to 55 years old ($M = 32.61$, $SD = 7.02$). Children were split evenly between male and female (50.0%) and were 6.32 years old on average ($SD = 1.18$) at baseline. All mothers spoke Arabic fluently and it was the first language for all study children. Almost all families had fled to Jordan between 2011 and 2014; given the ages of the participating children, this means they were largely born as refugees in Jordan. 88.7% of those aged 6 and up (the age where school attendance is officially mandatory in Jordan) attended school (64.9% of the overall sample). Only 56% of the children reported at baseline that they had seen someone reading in their home in the previous week.

Mother–child dyads were randomised to treatment ($n = 154$) or wait-listed control ($n = 168$) based on the community-based organisation from which they were sampled. This randomisation was done using a random number generator by author KH. Attrition was low, with 315 mother–child dyads taking part at T2, 3.5 months later (3 dropouts from treatment, 4 from control, Supplemental Fig. 1).

To be included in the study, ‘mothers’ had to be a Syrian refugee who was the primary female caregiver for at least one child between the age of 4 and 8 years old. In practice, all but one were the study child’s biological mother, with the other a grandmother taking part in the study as the child’s biological mother was deceased; for simplicity, we refer to these caregivers as ‘mothers’ throughout the paper. Where a mother had more than one child aged between 4 and 8 years old, the child closest in age to 6 years was chosen as the ‘study child’. Although we set this age limitation, upon collecting data from families—including their official documents—we discovered that a small number of the children were 3 ($n = 2$) or 9 years old ($n = 1$) at T1; these participants were retained for analysis.

Procedures

This project received approval from the Prime Minister's Office in Jordan in December 2020 and ethical approval from the Trinity College Dublin School of Psychology ethics committee in January 2021 (01E/2020/10). The study protocol was approved by the ethics committee and all methods were carried out in accordance with relevant guidelines and regulations. To recruit participants for the study, the research team reached out to community-based organisations that provide services to refugee women in Amman and to two women who had previously led reading sessions (called 'ambassadors') in Zaatari camp. These organisations and ambassadors were asked to provide lists of Syrian refugee women who might meet the eligibility criteria. We then held events at community-based organisations and in Zaatari to sign up potential participants. From the lists provided by the organisations and events, we contacted mothers over the phone to see if they would be interested in taking part in this study. We recruited participants through five local community-based organizations in Amman (Sanabel Al-Khair [$n = 45$], Al-Yadoudeh Society [$n = 32$], Husun Al-Eman [$n = 35$], Yarub Charitiny [$n = 27$], and Nasamat Al-Farah [$n = 96$]) and through two reading ambassadors in Zaatari ($n = 47$ and 40 , respectively).

Potential participants were sent information sheets over Whatsapp and had the project explained to them orally; if they indicated an interest in taking part then a household visit was arranged. Mothers provided informed consent for their own and their child's participation and the child provided informed assent. Data was collected by pairs of female fieldworkers who went to participants' homes together; one fieldworker would collect data from the mother while the other would simultaneously collect data from the child. This was done because for safety, the fieldworkers always worked in pairs, and so it made sense to have one of the fieldworkers collecting mother data while another collected child data. This worked very well in practice, reducing the time needed for any one family to take part. To obviate issues arising from low literacy or a lack of familiarity with completing survey measures, all questions were said out loud in Arabic by the fieldworker who input participant responses directly in KoboToolbox. Visual aids were used to display Likert scale responses.

Most (61.7%) of the mothers in the treatment group were trained as We Love Reading ambassadors in order to be the ones reading to the study child and other children for this study. That is, most mothers in the treatment group took part in this project both as study participants and in delivering the intervention. Siblings of the study child in 8 treatment families and in 2 control families had previously taken part in We Love Reading; none of the study children had previously been involved and none of the mothers were previously trained in its delivery.

Fieldworkers were native Arabic speakers with experience conducting social research in Jordan. They received one week of training on this project's procedures before data collection, then practiced the data collection processes with each other, and conducted pilot data collection with 10 mother-child dyads in January 2021. After receiving feedback on the pilot data collection and discussing measures and procedures as a team, they commenced T1 data collection between February and May 2021, followed by T2 data collection between May and August 2021.

Measures

We used measures which were developed in, validated for, or had previously been used in Arabic and with displaced people, where possible. However, where an Arabic language measure was not available, LQ translated all items and response options; these were back translated to English by the field officer to assess comparability after translation; and then the translators, fieldworkers, and all other research team members discussed the measures to determine the final Arabic-language wording. We then piloted the survey at each timepoint to ensure measures were clear and understandable to participants, with changes made where necessary. Most members of our study team are fluent English and Arabic speakers (of the authors: MAH, AEL, RD, and LQ), from the MENA region but with experience in American/UK sociocultural contexts; their review of the translations and back-translations was essential. Our primary outcomes in this RCT are children's literacy and attitude toward reading. The secondary outcomes are family relationships (mother-child closeness and conflict, spousal relationship quality, and father involvement).

Demographics

Mothers reported on mother education, father education, child sex, child age, mother's age, number of children mother has had, number of people per room in their household (excluding kitchen and bathroom), whether the child was enrolled in school, whether the mother was literate, whether the father lived at home, and whether the mother was employed. Where there was uncertainty about the child's age, we used the date of birth indicated on government documents. For each participant, fieldworkers indicated at each timepoint whether COVID restrictions were in place and whether the data was collected in Amman or Zaatari.

Child literacy

Children's literacy was directly assessed using the literacy component of the Holistic Assessment of Learning and Development Outcomes (HALDO)³⁴ measure. HALDO was specifically developed to be administered to war-affected and displaced children aged 4–12, to assess education in emergencies and evaluate the impacts of interventions³⁵. It was developed in Uganda; we adapted an Arabic-language version that had been used in Lebanon³⁶. This adaptation was necessary because the literacy construct as original developed in Arabic had limited variance in the Lebanese sample³⁷. Specifically, we changed the letters for the common/uncommon letter identification and adapted the reading comprehension paragraph. This type of adaptation is in line with recommendations for implementation of the HALDO³⁷.

The HALDO literacy component assesses letter identification, expressive language, and reading comprehension. Possible scores range from 0 to 15, with higher scores indicating more literacy skills. To ensure consistency of response coding, two fieldworkers coded the HALDO responses for the first participant at least every

second day, with good inter-rater reliability at baseline (expressive language ICC = 0.998, letter identification ICC = 0.999, reading comprehension ICC = 1.000) and endline (expressive language ICC = 0.998, letter identification ICC = 0.996, reading comprehension ICC = 1.000) in our dataset. For more details on how literacy was assessed, see³⁸.

Children's attitudes toward reading

We assessed children's attitudes toward reading using three measures: two were child self-reported and one was mother-reported. Children completed the 4-item efficacy for reading and 3-item reading orientation subscales of the Young Reader Motivation Questionnaire (YRMQ)³⁹. The YRMQ was developed in the United States in English and includes items such as "Is it fun for you to read books?". The Likert scale ranges from 1 (no, never) to 4 (yes, always), with higher scores indicating a more positive attitude toward reading. Children also completed the 8-item attitude subscale of the Reader Self-Concept Scale (RSCS)⁴⁰. The RSCS was developed in English in New Zealand. It contains items such as "Do you like reading to yourself?". We scored the RSCS using a dichotomous scale (0 = no, 1 = yes), with higher scores indicating a more positive attitude toward reading. The mothers reported on their child's attitude toward reading with the 9-item 'parents' perception of their child's attitude towards reading' (PPCATR) subscale of the Parents Digital Literacy Questionnaire. This measure was developed in Turkey by⁴¹ and includes items such as "My child wants to be read to". The PPCATR has a Likert scale ranging from 0 (never) to 4 (always), with higher scores indicating a more positive attitude toward reading. The YRMQ and RSCS are strongly correlated with one another ($r = 0.59$), the PPCATR is weakly correlated with the RSCS ($r = 0.12$) and is not correlated with the YRMQ ($r = 0.07$).

Family relationships

Our secondary outcome of family relationships includes mother-child closeness, mother-child conflict, spousal relationship quality, and father involvement. Mother-child closeness and conflict were assessed using the 15-item Pianta Child-Parent Relationship Scale—Short Form⁴². The closeness subscale consists of 7 items such as "I share an affectionate, warm relationship with my child" and the conflict subscale consists of 8 items such as "My child and I always seem to be struggling with each other". The 5-point Likert scale ranges from 1 (definitely does not apply) to 5 (definitely applies), with higher scores indicating greater closeness or greater conflict. Spousal relationship quality was measured using the 8-item Arabic Dyadic Adjustment Scale (DAS)⁴³. It includes items such as "How often do you and your husband 'get on each other's nerves'?", with higher scores on the 6-point Likert scale indicating better spousal relationship quality. Mothers' views of father involvement with the child, mother, and community were assessed using the 20-item Father Involvement Questionnaire⁴⁴, developed in Lebanon. The FIQ includes items such as "knowledgeable about child(ren)'s education" (father-child subscale), "treats me well in front of our child(ren)" (father-mother subscale), and "spends time with other fathers in the community" (father-community subscale). The 4-point Likert scale ranges from 1 (strongly disagree) to 4 (strongly agree), with a higher score indicating greater father involvement for each subscale.

For information on other measures collected from participants for this project, see our [study OSF](#).

Statistical analysis

After pre-registering our analyses, we first tested whether there were any baseline differences between the treatment and control using a logistic regression; where these were identified, we used them as control variables in subsequent analyses. In line with our pre-registration, we then ran mixed ANOVAs with treatment group as a between-subjects factor to test the impacts of We Love Reading on our primary and secondary outcomes. This allowed us to see how change from T1 to T2 differed between the treatment and control groups. There was strong fidelity to the intervention; we conducted both per protocol and intent-to-treat analyses and analyses at the individual and cluster level, but since the results were functionally identical, below we report only the intent-to-treat and individual-level analyses. Finally, we took an implementation science approach to evaluate whether children with certain characteristics were more or less likely to benefit from the We Love Reading program. To do this, we ran three pre-registered exploratory analyses; these mixed ANOVAs tested for interaction effects between treatment group and child age, child gender, and location (in refugee camp, not in refugee camp) on our outcomes. All syntax, data, and output for the analyses—including per protocol analyses—are available on the study [OSF](#).

Results

We first ran a logistic regression to test whether the treatment and control groups differed demographically from one another at baseline; this model included mother education, father education, child sex, child age, mother's age, number of children mother has had, number of people per room in their household, whether the child was enrolled in school, whether the mother was literate, whether there was a COVID curfew in place, whether the father lived at home, whether the mother was employed, and whether the family lived in Amman or Zaatari. Mothers in the treatment group were more likely to have never attended school ($B = 3.43$, $SE = 1.26$, $p = 0.007$, 95% CI 0.95, 5.91), to be younger ($B = -0.09$, $SE = 0.03$, $p = 0.001$, 95% CI -0.14 , -0.04), to have more children ($B = 0.22$, $SE = 0.10$, $p = 0.029$, 95% CI 0.02, 0.42), to have had their baseline data collected when there was no COVID curfew in place ($B = -0.86$, $SE = 0.30$, $p = 0.005$, 95% CI -1.45 , -0.26), and to live in Zaatar ($B = 0.91$, $SE = 0.42$, $p = 0.031$, 95% CI 0.08, 1.73) than the control group. These variables were included as controls in the subsequent analyses. None of the other demographic variables differed between the treatment and control groups ($ps > 0.05$). Supplemental Table 1 shows the number of participants, means, standard deviations, ranges, and internal reliability of each included measure at each timepoint and for both the treatment and control group.

Effects of We Love Reading on literacy and attitudes toward reading

To test our first hypothesis that children who took part in We Love Reading would have improved literacy and attitudes toward reading, we ran mixed ANOVAs, controlling for whether the mother had attended school, mother's age, mother number of children, COVID curfew, and camp residence. There was no difference in changes in literacy skills from baseline to endline between the treatment and control ($p = 0.098$, Fig. 1a). There was no difference in changes in child-reported attitudes toward reading, as assessed by either the YRMQ or RSCS (Fig. 1b,c). There were, however, changes in the mothers' reports of child attitudes toward reading, with mothers indicating that when their children took part in this shared book reading program, their children were more positive about reading ($F = 4.00$, $p = 0.046$). Mothers in both the treatment and control groups felt that their children were more interested in reading at endline, but this change was more pronounced for the treatment group (Fig. 1d). With a η^2 of 0.013, this is a small effect.

Effects of We Love Reading on family relationships

To test our second hypothesis that children who took part in We Love Reading would have better family relationships, we ran mixed ANOVAs assessing changes in mother-child closeness, mother-child conflict, spousal relationship quality, father-child involvement, father-mother involvement, and father-community involvement (Supplemental Fig. 2). There were no impacts of participating in this shared book reading program on mother-child closeness, mother-child conflict, father-child involvement, or father-community involvement ($p > 0.05$). There was a significant change in spousal relationship quality, although it was not in the expected direction: mothers in both groups indicated that their spousal relationships improved from baseline to endline, but those in the control group had larger improvements ($F = 4.83$, $p = 0.029$, $\eta^2 = 0.019$). Similarly, there was a change in father-mother involvement, but with the control group having increased father-mother involvement from baseline to endline and the treatment group having reduced father-mother involvement ($F = 6.57$, $p = 0.011$, $\eta^2 = 0.033$).

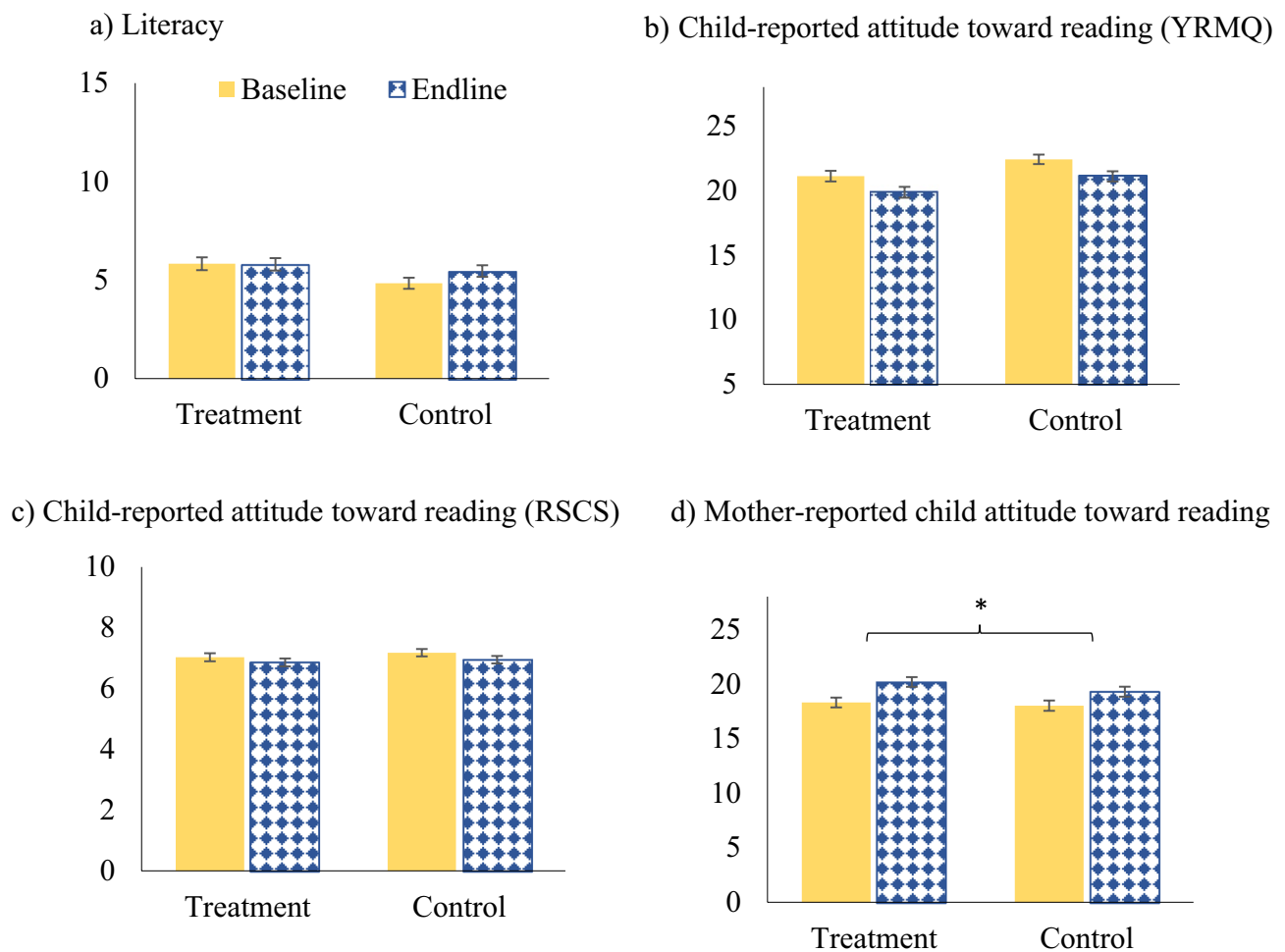


Figure 1. Effects of We Love Reading on child literacy and child attitudes toward reading. *Significant difference between the pattern of change for the treatment and control group from baseline to endline. Error bars represent standard errors.

Subgroup differences in intervention efficacy

We tested if the intervention effects differed depending on if the participants lived in or out of a refugee camp, if the child was male or female, and the age of the child. Out of 30 models, three were significant; these three all involved a different pattern of change for those in Amman v. Zaatari (Supplemental Table 2, Supplemental Fig. 3). Overall, the results suggest mixed potential impacts of the intervention dependent on if participants lived in a refugee camp or not, but no differences in the efficacy or non-efficacy of We Love Reading by child sex or age.

Discussion

Our study is the first to rigorously evaluate whether shared book reading can positively impact refugee children, building on a limited evidence base for how to promote literacy and love of reading among children in humanitarian crisis contexts. With an RCT, we find that a locally developed, shared book reading intervention may improve attitudes toward reading in forcibly displaced children but did not impact child literacy or improve family relationship quality. While the children themselves did not feel more positive about reading after taking part in the program, their mothers reported them to be. If mothers view their children as more interested in reading, they may engage them in more reading-related activities, with potential positive knock-on effects on children's literacy^{45–47}.

Previous work has suggested that We Love Reading has an impact on refugee and non-refugee children, leading to a range of positive outcomes^{24,26–28}. Our results somewhat align with the non-randomised, observational study of non-refugee Jordanian children²⁸, which found small improvements in reading practices and reading attitudes from pre- to post-test for children who had participated in We Love Reading. However, only the change in reading practices from pre- to post-test was significant when comparing the change between the treatment and comparison group. Our study found small changes in mothers' reports of child attitudes toward reading but, like in²⁸, we found no change in child-report attitudes toward reading as a result of taking part in the intervention (when change in comparing treatment to control). This suggests that this intervention has limited impacts on child literacy and child-reported attitudes toward reading. More research is needed to understand the extent to which We Love Reading impacts children's relationship with reading and what mechanisms underlie any impacts.

The We Love Reading intervention is relatively light touch, with We Love Reading ambassadors asked to read a book to their group at least once a week, and with no prescribed discussion of the book and its contents during or after the reading session. In this way, it is more like a preschool 'read-aloud' program than a traditional shared book reading program. Read-aloud programs have been found to be effective at improving children's language, phonological awareness, print concepts, comprehension, and vocabulary [e.g.^{18,48,49}]. However, this efficacy differs depending on characteristics of the person reading, how they read, and the extent to which they take a dialogic approach^{18,50,51}. The aspects of the program that make it well-suited to the context of forcibly displaced refugee children—its informality and flexibility^{7,4}—may inadvertently reduce its potential to affect attitudes toward reading or child literacy. As with read-aloud programs, reviews and meta-analyses of shared book reading programs suggest a dose–response effect, with longer, more frequent, and more interactive interventions leading to larger program effects^{17,22,50,52,53}. Improvements in expressive language (a key component of literacy, assessed in our HALDO measure) may require an explicit discussion of any new words¹⁹ and improvements in comprehension may require a greater focus on story meaning^{54,55}. A more dialogic approach may lead to more positive language and literacy outcomes^{22,56,57}; we did not make such changes because we were evaluating the program as it is currently being run, to understand the efficacy of the program being implemented. Future interventions with displaced youth may benefit from including dialogic elements to potentially enhance literacy outcomes while maintaining cultural sensitivity.

Many Syrian refugee children in Jordan have lower levels of literacy than non-refugee Arabic-speaking children of the same age^{38,58,59}, with an urgent need for effective interventions to improve reading and writing abilities. Multi-component literacy⁶⁰, early grade reading⁶¹, teacher training and coaching⁶², and digital interventions⁶³ have all shown promise in promoting literacy among children in low- and middle-income countries. Although we found no impacts of We Love Reading on literacy in our sample, more research on intervention programs with similar goals is imperative.

Limitations

Our rigorous RCT included a large sample of Syrian refugee mothers and children, with >97% power to detect a small effect, with data collected from mothers and children at two timepoints. Interest in the intervention and adherence was also extremely high. However, this study had several limitations. *First*, none of our three attitude toward reading measures were developed in Arabic, and so although we had a stringent translation, review, and piloting procedure, these measures may not accurately assess this construct in our study population. That is, these measures may not fully capture the nuances of attitudes to reading in this population. This problem is not specific to our study, as there is a general dearth of measures that were developed or validated for use in Arabic speakers, particularly among those with Syrian dialects [e.g.⁶⁴]. *Second*, our endline data collection occurred on average 15 weeks ($SD = 1.16$) after the baseline data were obtained, and so while we followed children more than the minimum time in which We Love Reading is typically implemented (12 weeks), it is possible that a longer implementation would have greater effects. *Third*, the positive finding for mother-reported child attitude toward reading may be the result of social desirability bias, rather than a real change in child attitudes. Mothers might have over-reported changes in child attitudes to reading to align with their perceived expectations for the research project. *Fourth*, the children were 4–8 years old and thus their level of comprehension in answering some of the survey questions may have been limited. *Finally*, we used a wait-listed rather than active control group; an active control was not possible due to resource constraints.

Conclusions

Forcibly displaced children are at increased risk for poor literacy skills, which are critical to a wide range of outcomes later in childhood and adulthood⁶⁵. Here, among Syrian refugees in Jordan, we found that a community-led, light-touch, shared book reading intervention had some promise in improving mother reports of child attitudes toward reading, but not children's reports of their own attitudes, nor their literacy or family relationships. If the goal is improving literacy, practitioners may want to consider integrating more interactive or intensive reading approaches into community-led programs with refugees, as traditional read-aloud methods alone may not be sufficient. Further research is needed to fully understand the potential of shared book reading and read-aloud programs as a tool to effectively support the development of displaced children.

Data availability

Data is available through the UK Data Archive or via our study OSF page: <https://osf.io/gcv5z/>.

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Author contributions

KH, RD, AEK, SvS, and IM developed the funding application. All authors designed the study. RD, AEK, LQ, JM, and MAH oversaw the data collection. KH and IM wrote the main manuscript text. All authors reviewed the manuscript.

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Competing interests

Co-author Dajani is the Director of the Taghyeer Foundation, which implements the We Love Reading intervention. Co-author Qtaishat currently works at the Taghyeer Foundation. Co-author Al-Hamad worked at Taghyeer during data collection but left that organisation prior to the drafting of this manuscript. While this could represent a conflict of interest given that we are evaluating We Love Reading in this manuscript and Taghyeer implements this intervention, we obviated this in a few ways. First, we pre-registered the RCT ahead of collecting any data. Second, we pre-registered the RCT analysis ahead of conducting any analyses of the intervention. Third, we have shared our dataset, dataset guide, syntax etc. on the study's OSF page (<https://osf.io/gcv5z/>), for transparency. The other authors declare that they have no conflict of interest.

Additional information

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