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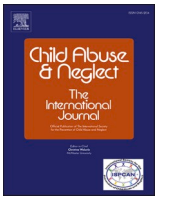

A randomized control trial of a child abuse mandated reporter training: Knowledge and attitudes

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ABSTRACT

Background: Despite being well-positioned to identify maltreatment in the children that they provide care for and being legally required to report suspected child maltreatment, early childhood professionals (ECPs) make a limited proportion of reports to child protective services. It is critical to identify evidence-based interventions to improve the reporting practices of this group of mandated reporters allowing for the better protection of children from maltreatment.
Objective: The goal of the present study was to determine if *iLookOut,* an online child abuse identification and reporting training for ECPs, results in differential gains in knowledge and attitudes towards child abuse and its reporting among ECPs, as compared to an online standard training.
Participants and setting: Both interventions were completed online by participants recruited from licensed child care programs in Southern Maine from October 2017 to January 2020. Eligibility criteria included being at least 18 years of age, English-speaking, and working as paid or volunteer staff at a licensed child care program taking care of children 5 years of age or younger. Of the 1152 enrolled individuals, 1094 provided complete pre- and post-intervention data.
Methods: A randomized controlled trial comparing *iLookOut* with an online standard training.
Results: ECPs who completed *iLookOut* significantly outperformed those who completed Standard mandated reporter training in terms of both knowledge (d=1.09 vs. 0.67) and attitudes (d=0.67 vs. 0.54) relative to pre-test scores.
Conclusions: iLookOut is a promising candidate for widespread use in meeting the need for evidence-based training on child abuse and its reporting.

Article Summary

Despite being well-positioned to identify and legally required to report suspected child maltreatment, early childhood professionals

Abbreviations: ECP, early childhood professional; CI, confidence interval; CPS, child protective services; GEE, generalized estimating equations; RCT, randomized controlled trial; RUCA, rural-urban commuting area.

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(ECPs) make a limited proportion of reports. High quality, evidence-based trainings are needed to improve the child abuse reporting practices of ECPs.

In the first randomized controlled comparison trial of *iLookOut*, greater knowledge and attitudes improvements were made in the *iLookOut* versus Standard arm. *iLookOut* is a promising candidate for meeting the need for evidence-based training on child abuse and its reporting.

1. Introduction

Child maltreatment is a known harm. In addition to being a preventable cause of injury and death to children, children who experience maltreatment are at increased risk for negative cognitive, language, social, and emotional functioning across the lifespan (Cicchetti & Toth, 2005). Each year in the U.S., child protective services (CPS) receive reports regarding potential maltreatment for over 7.8 million children (U.S. Department of Health & Human Services, 2020). Research from the National Child Abuse and Neglect Data System Child Files indicates that by age 18 years approximately 1 in 3 children are referred to CPS (Kim, Wildeman, Jonson-Reid, & Drake, 2017), with 1 in 8 children found to have confirmed maltreatment (Wildeman et al., 2014).

These numbers indicate that a large proportion of families come into contact with CPS and highlight the important and difficult task CPS workers must do to sift through millions of cases each year. Given that many children experiencing maltreatment ("abuse") are never reported, and that many who are referred have not in fact experienced abuse, high-quality reports are essential for improving the efficiency and efficacy of CPS actions.

Young children are most at risk for maltreatment (U.S. Department of Health & Human Services, 2020), and nearly 7 million infants, toddlers, and preschool age children attend child care settings (Laughlin, 2013). Early childhood professionals (ECPs; e.g., preschool teachers, day care providers, child care administrators, and support staff) are not only well-positioned to identify maltreatment in the children that they provide care for, but are also mandated reporters (i.e., legally designated individuals required to report suspected child maltreatment) (Dinehart, Katz, Manfra, & Ullery, 2013; Mathews & Kenny, 2008). Yet, ECPs make up less than one percent of all reports to CPS (U.S. Department of Health & Human Services, 2020). Potential reasons for this low reporting rate include failure to recognize the abuse, confusion or disagreement about when reports should be made regarding suspected child abuse or neglect, as well as whether the risks of making reports to CPS outweigh the benefits (Alvarez, Kenny, Donohue, & Carpin, 2004). Moreover, it is widely recognized that the lack of high quality, evidence-based training contributes to such confusion and disagreement (Walsh & Jones, 2015).

To address this need for training ECPs about child abuse and its reporting, *iLookOut for Child Abuse* (*iLookOut*) was created to provide a customized online educational intervention (Levi et al., 2019). Previous work examining *iLookOut's* efficacy at improving knowledge and changing attitudes regarding child abuse reporting comes from a test-retest randomized controlled trial (RCT) of 741 ECPs in the state of Pennsylvania (Mathews et al., 2017). *iLookOut* outperformed the control group in both improvements in knowledge and changes in attitudes about child abuse and its reporting. A follow-up "real-world study" (i.e., more realistic and generalizable relative to RCTs) of *iLookOut* in 11,065 ECPs (Yang et al., 2020), also found large effect sizes for changes in knowledge and attitudes. Thus, while *iLookOut* appears to be a promising intervention targeting education about child abuse and its reporting, this intervention has yet to be rigorously compared to current mandated reporter training.

In this study, we present the first randomized controlled comparison trial of the *iLookOut* intervention, here using the state of Maine's standard online mandated reporter training. We have three aims. First, we aim to examine pre- to post-intervention changes in knowledge regarding child abuse and its reporting among ECPs affiliated with child care programs assigned to the *iLookOut* and standard online trainings. This allows for causal inferences to be made using an active comparison group. Second, we aim to examine pre- to post-intervention changes in these groups in relation to attitudes regarding child abuse and its reporting. Third, we aim to explore whether characteristics of the ECP are associated with the degree of changes in knowledge and attitudes.

2. Methods

We present outcomes from 1094 ECPs who completed an RCT of training about child abuse and its reporting. Using a test-retest design, at baseline and also following completion of their assigned intervention, we assessed knowledge of child maltreatment, risk factors for maltreatment, and the legal requirements for reporting suspected maltreatment as well as attitudes towards reporting. Changes in scores on these two metrics (i.e., knowledge and attitudes) were compared between those assigned to the *iLookOut* intervention group and those assigned to the Standard intervention group. *iLookOut* has been described extensively in prior papers (Kapp et al., 2020; Levi et al., 2019; Mathews et al., 2017), but in brief includes a video-based storyline, game-based techniques, and interactive learning exercises, in conjunction with pre-/post-tests. ECPs learn about events that occur over 2 days in the work-life of a provider named Megan as she recounts them to Elisha, a mentor whose guidance she is seeking. At different junctures, the learner is provided resources (e.g., Facts about Abuse, Red Flags handout), posed didactic questions, and given opportunities to apply new information and practice decision-making. Such immersion into real-life scenarios helps ECPs absorb and operationalize information and develop skills to protect children from harm. The Standard intervention is Maine's state developed mandated reporter training. In an effort to provide comparable professional development hours, handouts on basic child development (i.e., language, cognitive, and social-emotional development) were added for the Standard intervention.

The study was approved by the Institutional Review Board of Penn State University and registered at the U.S. National Institutes of Health #NCT03185728 (https://clinicaltrials.gov/ct2/show/NCT03185728). At study initiation, a total of 1152 individuals were enrolled. However, 11 provided no pre- or post-intervention data and an additional 47 provided only pre-intervention data. Those who

were assigned but did not complete *iLookOut* did not differ from those who did in age, gender, race, ethnicity, marital status, education, religiosity, parental status, age of youngest child, employment type, formal training in early childhood education, previous child abuse training, previous online mandated reporter training, previous in-person training, times having reported abuse, primary job responsibility, work setting, years as a provider, or years at current workplace. For more information on the study flow, please see the CONSORT diagram (Fig. 1).

2.1. Participants

Participants were ECPs from the U.S. state of Maine (population 1.344 million), whose population is predominantly Caucasian (94 %), has a median per capita income ($31,253 USD) slightly below that of the U.S. ($32,621 USD) (United States Census Bureau, 2018), and has a large rural population (65 %) (United States Census Bureau, 2010). Eligibility criteria included being at least 18 years of age, English-speaking, and working as paid or volunteer staff at a licensed child care program (commercial, non-commercial, home-based, or other) taking care of children 5 years of age or younger. A list of all licensed child care programs in the study catchment area was obtained from Maine's Office of Licensing. These programs were then randomized using a stratified randomized block design (block size:3) generated by SAS software 9.4 (SAS Institute, Cary, NC) to receive either the *iLookOut* intervention or Maine's existing online course on mandated reporter training. Randomization was based on the following criteria: type (center, Head Start, home-based, preschool/nursery), number of children authorized to attend (<10, 11–25, >25), census-based rurality, RUCA (rural-urban commuting area)-based rurality (U.S. Department of Agriculture, 2020), and quality rating. Recruitment materials were sent to directors of all licensed child care programs in southern Maine. Directors of child care programs were then provided with web links enabling their staff to access *iLookOut*. Participants provided informed consent prior to starting the intervention, and indicated willingness to be re-contacted several months later for follow-up. A $5 gift certificate was provided following successful completion of *iLookOut*, which also conferred professional development credit, and satisfied state requirements for mandated reporter training. Data were collected from October 2017 to January 2020.

2.2. Measures

In addition to information assessing demographic and workplace characteristics, participants completed two measures at baseline and post-intervention. The knowledge measure (Mathews et al., 2017) comprised 25 items, each with a single correct answer (possible range of 0–25). Briefly, this measure assessed knowledge about child maltreatment, risk factors for maltreatment, and the legal requirements (and protections) related to reporting suspected maltreatment. The knowledge measure was adapted from a previously validated instrument described elsewhere (Mathews et al., 2017). It was subsequently reviewed by content experts in child welfare, law, state policy, and child abuse; examined for both construct and content validity through stratified cognitive interviews in multiple states (Panlilio et al., 2020); and then field-tested with ECPs. The measure was adapted to reflect Maine law through expert review by Maine's Office of Child and Family Services. In the current sample, the internal consistency of this measure at the first administration was 0.72.

The 13-item previously validated attitudes scale (Mathews et al., 2017) assessed participants' commitment to the role of the

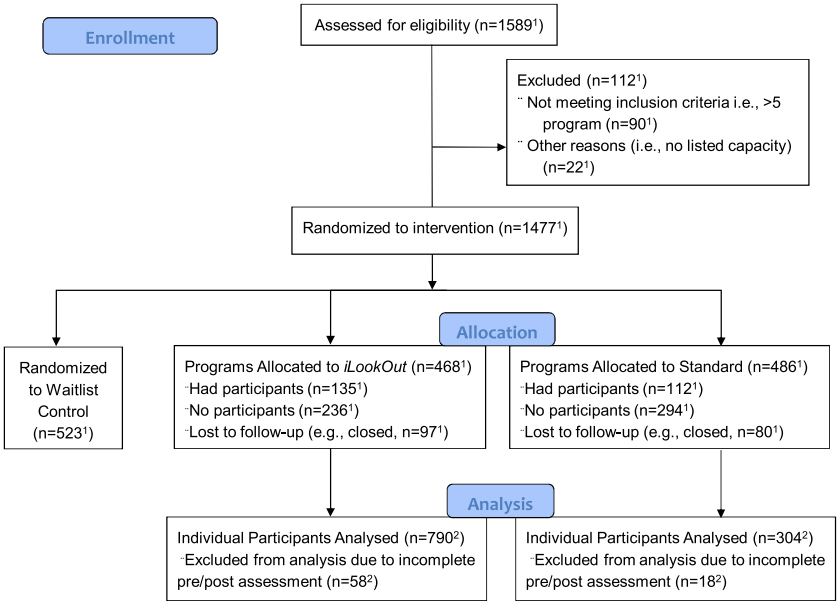

Fig. 1. Study CONSORT Diagram.

Table 1
Demographics by Study Arm.

Variable	Total N = 1094 N (%)	Standard N = 304 N (%)	*iLookOut* N = 790 N (%)	P-value (χ^2 or Mann Whitney *U*-test)
Age (years)				0.508
18–29	396 (36)	102 (34)	294 (37)	
30–34	334 (31)	95 (31)	239 (30)	
More than 44	364 (33)	107 (35)	257 (33)	
Gender				0.320
Male	51 (5)	11 (4)	40 (5)	
Female	1041 (95)	291 (96)	750 (95)	
Non-White Race				0.220
Yes	51 (5)	18 (6)	33 (4)	
No	1043 (95)	286 (94)	757 (96)	
Hispanic/Latino				0.373
Yes	14 (1)	2 (1)	12 (1)	
No	1080 (99)	302 (99)	778 (99)	
Marital Status				0.513
Single	397 (36)	105 (35)	292 (37)	
Married/Cohabitating	609 (56)	179 (59)	430 (54)	
Separated/Divorced	76 (7)	17 (6)	59 (7)	
Widowed	12 (1)	3 (1)	9 (1)	
Education				0.229
High School or Less	441 (40)	125 (41)	316 (40)	
CDA credential	44 (4)	16 (5)	28 (4)	
Associate's Degree	224 (21)	70 (23)	154 (19)	
Bachelor's Degree	294 (27)	70 (23)	224 (28)	
Graduate Degree	91 (8)	23 (8)	68 (7)	
Religiosity				0.866
Extremely Unreligious	34 (3)	10 (3)	24 (3)	
Unreligious	217 (20)	57 (19)	160 (20)	
Somewhat Unreligious	49 (4)	15 (5)	34 (4)	
Neutral	303 (28)	84 (28)	219 (28) 167	
Somewhat Religious	240 (22)	73 (24)	(21)	
Religious	220 (20)	59 (19)	161 (20)	
Extremely Religious	31 (3)	6 (2)	25 (3)	
Parent/Guardian				0.008
Yes	669 (61)	205 (67)	464 (59)	
No	425 (39)	99 (33)	326 (41)	
Age of Youngest Child				0.179
5 years or Younger	189 (28)	67 (33)	122 (26)	
6–17 Years Old	265 (40)	80 (39)	185 (40)	
Older than 18 Years	215 (32)	58 (28)	157 (34)	
Employment				0.226
Volunteer	22 (2) 849	4 (1)	18 (2)	
Paid Full-Time	(78)	231 (76)	618 (78)	
Paid Part-Time	208 (19)	63 (21)	145 (18)	
Paid Seasonal	6 (1)	1 (1)	5 (1)	
Paid Substitute	9 (1)	5 (2)	4 (1)	
Formal Training in Child Development				0.596
Yes	436 (40)	125 (41)	311 (39)	
No	658 (60)	179 (59)	479 (61)	
Any previous mandated reporter training				0.034
Yes	528 (48)	131 (43)	397 (50)	
No	566 (52)	173 (57)	393 (50)	
Previous Maine OCFS online mandated reporter training				0.054
Yes	328 (58)	74 (51)	254 (60)	
No	239 (42)	71 (49)	168 (40)	
In-person OCFS training				0.425
Yes	186 (34)	43 (31)	143 (35)	
No	362 (66)	95 (69)	267 (65)	
Times Reported Abuse (by primary job responsibility)		0.64 (1.47)	1.21 (4.78)	0.782
Director/Owner	206 (19)	70 (23)	136 (17)	0.027
Assistant Director	42 (4)	14 (5)	28 (4)	
Teacher	483 (44)	136 (45)	347 (44)	
Teacher's Aid	250 (23)	64 (21)	186 (24)	
Support	113 (10)	20 (7)	93 (12)	
Work Setting				0.190
Rural	68 (6)	24 (8)	44 (6)	
Suburban	960 (88)	258 (85)	702 (89)	
Urban	66 (6)	22 (7)	44 (6)	

(*continued on next page*)

Table 1 (*continued*)

Variable	Total N = 1094 N (%)	Standard N = 304 N (%)	*iLookOut* N = 790 N (%)	P-value (χ^2 or Mann Whitney *U*-test)
Years as ECP				0.549
Less Than 1	140 (13)	35 (12)	105 (13)	
1–2	131 (12)	34 (11)	97 (12)	
3–5	219 (20)	55 (18)	164 (21)	
6–10	176 (16)	58 (19)	118 (15)	
11–15	132 (12)	38 (13)	94 (12)	
More Than 15	296 (27)	84 (28)	212 (27)	
Years at Current Workplace				0.620
Less Than 1	316 (29)	77 (25)	239 (30)	
1–2	194 (18)	59 (19)	135 (17)	
3–5	201 (20)	60 (20)	141 (18)	
6–10	146 (13)	38 (13)	108 (14)	
11–15	92 (8)	27 (9)	65 (8)	
More Than 15	145 (13)	43 (14)	102 (13)	

professional in reporting potential maltreatment, confidence in CPS to respond effectively, and concerns about consequences of reporting. Each item used a 10-point Likert-style scale (1=Strongly Disagree; 10=Strongly Agree). In the current sample, the internal consistency of this measure at the first administration was 0.80. In addition to individual item pre/post comparisons, change in total score was calculated by adding together the scores for each item, subtracting the total pre-test score from the total post-test score, and dividing by 13. Some responses were reverse scored to achieve consistency that would allow for calculating a summary total score.

2.3. Statistical analysis

The present data are drawn from a larger study still in progress. The step wedge design of this study allowed us to conduct interim analyses after the standard learning program was closed for participation. All analyses were performed using SAS and a significance level of 0.05. In order to detect potential demographic or workplace differences as a function of the intervention arm, each variable was examined relative to group assignment using Chi-square tests. Variables in which differences were detected were included in analyses examining knowledge and attitudes in the *iLookOut* vs. Standard intervention groups.

The primary analyses examined whether changes in knowledge and attitudes differed as a function of the intervention arm. A linear effects model for the mean change in the knowledge score, attitude average, and individual attitude items was used. This model included factors for the study group as well as the preoutcome measurement, parental status, previous child abuse training, and primary job responsibility. Cohen's *d* was calculated to assess the effect size. The change in the percentage correct from pre to post for the individual knowledge questions was analyzed using a generalized estimating equations (GEE) model, also adjusted for parental status, previous child abuse training, and primary job responsibility. Cohen's *h* statistic was calculated to assess the effect size on the item level (see Supplemental Tables 1 and 2). We also investigated the interaction between the pre outcome measurement and the study group in relation to the change in knowledge score or attitude average with a linear effects model that compared the slopes of the regression for the pre-outcome measurement with the change in the outcome between the study groups.

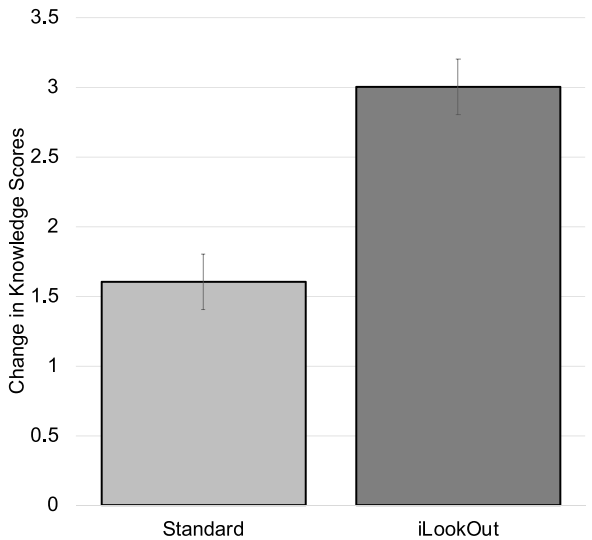

Fig. 2. Change in knowledge scores as a function of intervention arm.

Exploratory analyses were then conducted to examine whether individual or workplace characteristics moderated the effect of the intervention differences. These characteristics were age, gender, race, ethnicity, marital status, education, religiosity, parental status, age of youngest child, employment type, formal training in early childhood education, previous training about child abuse, previous online mandated reporter training, previous in-person training, times having reported abuse, primary job responsibility, work setting, years as a provider, or years at current workplace, as well as baseline scores on the knowledge and attitudes scales.

3. Results

3.1. Randomization

Table 1 presents characteristics of those who completed the *iLookOut* vs. Standard intervention. By chance, those in the *iLookOut* arm were less likely to be parents, more likely to have had previous child abuse reporter training, and less likely to be the director of the child care program. These characteristics were therefore included as covariates in subsequent analyses.

3.2. Intervention effects

Aim 1. Pre- to post-assessment of knowledge improved in both the Standard arm (baseline mean: 18.6, 95 % CI [18.3, 18.9] to post-test: 20.2, 95 % CI [19.9, 20.5]; $p < .001$; Cohen's $d = 0.67$) and the *iLookOut* arm (baseline mean: 18.2, 95 % CI [18.0, 18.4] to post-test: 21.4, 95 % CI [21.2, 21.6]; $p < .001$; $d = 1.09$). However, significantly greater gains were made in the *iLookOut* arm ($p < .001$; see Fig. 2). Item-level data for these changes can be found in Supplemental Table 1. Of particular note is the markedly greater improvement with *iLookOut* with regard to knowledge about bruising, including differentiating bruises from birthmarks (Supplemental Table 1).

Aim 2. Pre- to post-assessment of attitudes about child maltreatment and its reporting again showed changes in both those in the Standard arm (baseline mean: 8.7, 95 % CI [8.6, 8.8] to post-test: 9.1, 95 % CI [9.0, 9.2]; $p < .001$; Cohen's $d = 0.54$) and the *iLookOut* arm (baseline mean: 8.6, 95 % CI [8.5, 8.7] to post-test: 9.2, 95 % CI [9.1, 9.3]; $p < .001$; $d = 0.66$), but again to a greater extent in the *iLookOut* arm ($p < .001$; see Fig. 3). Item-level data for these changes in attitude can be found in Supplemental Table 2.

3.3. Exploratory analyses of intervention moderators

Aim 3. We examined whether any participant or workplace characteristics were associated with differential changes in scores for either knowledge or attitudes as a function of the intervention arm. The only specific difference found was that individuals with lower knowledge scores at baseline made much greater gains in knowledge when assigned to the *iLookOut* group relative to the Standard intervention ($F(1, 1090) = 7.42$, $p < .05$).

This same effect was found for attitude scores, insofar as individuals with lower baseline attitude scores assigned to the *iLookOut* group showed significantly greater changes in attitudes relative to those assigned to the Standard intervention ($F(1, 1090) = 337.55$, $p < .0001$). No demographic characteristics were associated with differential gains in knowledge or attitudes.

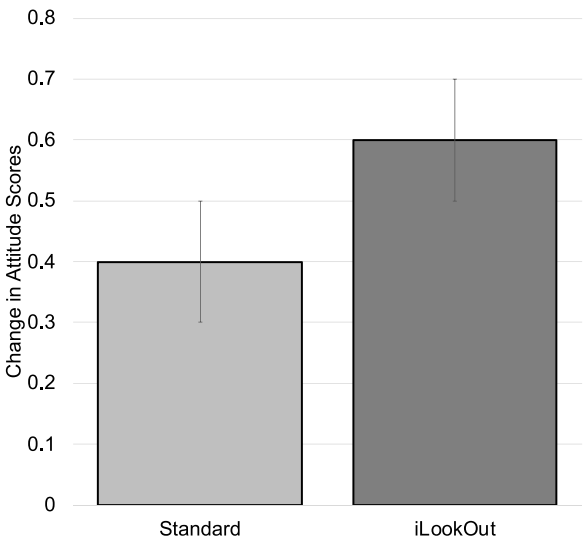

Fig. 3. Change in attitude scores as a function of intervention arm.

4. Discussion

The present randomized controlled trial demonstrates that early childhood professionals who completed *iLookOut* outperformed those who completed Standard mandated reporter training in terms of both knowledge (d=1.09 vs. 0.67) and attitudes (d=0.67 vs. 0.54). Exploratory analyses examining potential moderators of the effectiveness of *iLookOut* relative to the Standard intervention indicated that lower baseline knowledge and lower scores on the attitudes measure predicted greater gains at post-test. For both knowledge and attitudes, these gains were significantly greater with the *iLookOut* intervention.

While the present findings are consistent with prior data on the *iLookOut* intervention, they fill an important gap in knowledge. The initial evaluation of *iLookOut*'s effectiveness by Mathews et al. (2017), which involved a test-retest design, and the subsequent real world study by Yang et al. (2020) both found that *iLookOut* significantly ($p < 0.001$) improved knowledge ($d = 0.95$ and $d = 0.96$, respectively) and changed attitudes ($d = 0.98$ and $d = 0.80$, respectively) from pre- to post-training. In neither of these studies, however, was *iLookOut* compared to standard training (i.e., active comparison training). Such a comparison is valuable because it helps demonstrate that an interactive online training that uses best practices for adult learning and a nuanced approach to decision-making markedly outperforms standard training approaches. This is important because we need more effective ways to prepare mandated reporters to protect children from maltreatment (Humphreys, 2020). Such individuals need to know what to report and when, as well as when not, to report; and they also need resources to help them feel (and be) prepared to make reports that provide the information that CPS needs to protect at-risk children. Given the potential for disproportionate referrals made to CPS for people of color, the ability to imbue knowledge (as *iLookOut* does) about what is a concerning bruise versus birthmark may be particularly helpful.

The advantage in improved knowledge from participation in *iLookOut* may be attributable to more active learning processes by ECPs relative to standard training. Specifically, components of the *iLookOut* training modules, such as the interactive scenarios, relevance to practice, first-person perspective video storylines, knowledge prompts, and downloadable resources, have been designed to foster more learner engagement. Within primary, secondary, and post-secondary education, learner engagement is defined as the "active, goal-directed, flexible, constructive, persistent, focused interactions with the social and physical environments" (p. 149) (Furrer & Skinner, 2003). According to Fredricks, Blumenfeld, and Paris (2004), engagement is multifaceted and includes cognitive (i.e., thoughtfulness and willingness to exert the effort necessary to comprehend complex ideas and master difficult skills), behavioral (i.e., drawing from the idea of participation), and affective dimensions (i.e., positive and negative reactions to learning environments that influence willingness to do the work). From this perspective, *iLookOut*'s engaging online learning experience (which is not present in standard training) may allow the learner to deepen their understanding and appreciation of mandated reporter responsibilities.

Several potential moderators of the differences in increased knowledge or attitude scores between the interventions were examined. Only baseline scores were found to moderate intervention differences in improvements, and this effect was found for both knowledge and attitudes. Specifically, individuals with lower baseline knowledge and attitude scores made greater gains in knowledge and attitudes, respectively, when assigned to *iLookOut*. This cannot be attributed to regression to the mean (Marsden & Torgerson, 2012) given that any differences between pre- and post-test from such a phenomenon would be cancelled out to due to the RCT design (Tucker-Drob, 2011). Lower baseline scores indicate the greatest potential to improve over the course of any intervention. Moreover, ECPs with the lowest scores at baseline for knowledge and attitudes are likely the individuals for whom additional training is most important. Thus, it is particularly promising that *iLookOut* is especially effective in improving both knowledge and attitudes among those most in need.

While there are several strengths to this study, including the large sample size and rigorous RCT design, several limitations should be noted. The randomization procedure did not result in groups that were of identical size and some participant demographic and workplace characteristics differed between arms. That said, these variables were not found to impact the key findings for either knowledge or attitudes. In addition, while changes in knowledge and attitudes are considered to be important precursors to behavior change (Ajzen & Fishbein, 2005), the present data are not correlated with ECPs' actual reporting behavior. Preliminary data from this ongoing study do suggest that *iLookOut* positively influences ECPs' reporting, but to date such outcomes cannot be stated with certainty. Lastly, it is unclear how much the effects of the *iLookOut* training diminish over time. The earlier trial by Mathews et al. (2017) showed that 52 % of the gains in knowledge from *iLookOut* were sustained 4–5 months post-intervention; and a similar trend was seen with regard to attitudes. A rigorous evaluation of how to sustain improvement in knowledge and attitudes from *iLookOut* has been proposed, and is currently under consideration for funding, and a version of *iLookOut* will be disseminated in summer 2021 to Head Start programs in all 50 states and U.S. territories.

In conclusion, this study demonstrates that, compared to standard online training, *iLookOut* results in significant gains in knowledge and changes in attitude with regard to child abuse and its reporting. Those who care for young children and are designated as mandated reporters need evidence-based training to help them protect children from maltreatment. *iLookOut* is a promising candidate for widespread use in meeting these training needs. Future research will examine *iLookOut*'s impact on subsequent behavior, and if effective will provide evidence for its value for other states as well as for use with other mandated reporters (e.g., pediatricians, law enforcement, social workers).

Clinical trial registration

ClinicalTrials.gov; Identifier: NCT03185728; https://clinicaltrials.gov/ct2/show/NCT03185728.

Contributors' statement

Dr Humphreys drafted the initial manuscript.

Ms Piersiak helped draft the initial manuscript and reviewed and revised the manuscript.

Dr Panlilio helped design the data collection insruments, assisted in the drafting of the initial manuscript, and reviewed and revised the manuscript.

Mr Lehman performed and interpreted the data analyses.

Ms Verdiglione and Ms Dore substantially contributed to the conception and design of the study, coordinated and supervised data colletion, and reviewed and revised the manuscript.

Dr Levi conceptualized and designed the study, supervised acquisition of data, and reviewed and revised the manuscript.

All authors approved the final manuscript as submitted.

Declaration of Competing Interest

The authors report no declarations of interest.

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Appendix A. Supplementary data

Supplementary material related to this article can be found in the online version at doi:https://doi.org/10.1016/j.chiabu.2021.105033.

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