

Early experiences of adversity such as abuse are associated with serious short- and long-term negative consequences (Anda et al., 2006; Fantuzzo et al., 2011; Manly et al., 2001; Pears et al., 2008).

Though 0–5 year olds account for 46% of the >680,000 children identified annually as victims of maltreatment (U.S. DHHS, 2017), early care and education (ECE) providers report just 0.6% of these.

To the extent this inactivity indicates underreporting, it emphasizes ECE providers' crucial role for protecting young children from abuse.

Among the barriers to reporting suspected abuse (Alvarez et al., 2004; Dinehart & Kenny, 2015), one key obstacle is the lack of evidence-based training. A recent IOM report (2014) specifically identified the need to examine the efficacy of mandated reporter education programs.

Two small studies looked at in-person training for ECE providers (McGrath et al., 1987; Khan et al., 2005), and one evaluated an online curriculum (Kenny, 2007); but none evaluated scalable interventions.

The present study examined the efficacy of a scaled online educational program previously shown in a randomized controlled trial (n=741) to improve knowledge and attitudes about reporting suspected abuse (Mathews et al., 2017).

Methods

The present study employed a single group pretest-posttest design to measure changes among 5379 participants from Pennsylvania (see Table 1) regarding *knowledge* about ECE providers' responsibilities to report suspected abuse (23 items, correct/incorrect), and *attitudes* toward reporting suspected abuse (13 items, 7-point Likert scale).

Created specifically for ECE providers, the *iLookOut* online learning program employs an interactive, video-based storyline where learners take the role of an ECE provider faced with decision points on how to respond to indicators of potential abuse

Table 1

Demographics for the study sample (n=5379)

	%
Ethnicity	
Black/African-American	19.5
White	71.4
Hispanic	5.2
Asian	1.6
Native Hawaiian/Pacific Islander	.1
American Indian/Alaska Native	.4
Other	1.8
Parent/guardian	
Yes	60.2
Prior mandated reporter training	
Yes	74.4
Work setting	
Rural	17.9
Suburban	45.2
Urban	36.9
Education level	
Below High School	.7
High School or GED	31.9
Child Development Associate (CDA)	10
Associate's Degree	14.8
Bachelor's Degree	31.6
Masters or Doctoral	11
Gender	
Female	90.5
Age	
18 - 29	39.4
30 - 44	28.8
>44	31.8
Primary job responsibilities	
Teacher/caregiving staff	64.2
Early intervention specialist	1.4
Support staff	4.8
Director/Assistant Director	10
Other	19.7

Resource files provide information about child abuse, and guidance about when to report. For this Phase 2 open enrollment trial, ECE providers could access the *iLookOut* learning program through publicly available websites, but participants were not actively recruited. Participants provided informed consent prior to the registration/pre-test, and earned 3 hours of professional development credit by completing the learning program, post-test, and evaluation. No other incentives or remuneration were provided.

Results

One-way repeated measures ANOVA were conducted to compare the effects of *iLookOut* participation on pretest and posttest measures of knowledge and attitude.

Testing for main effects only yielded significant results for knowledge: Wilks' $\lambda = 0.508$, $F(1,5433) = 5256.964$, $p < 0.001$; partial $\eta^2 = 0.492$ and attitude: Wilks' $\lambda = 0.576$, $F(1,5432) = 4000.369$, $p < 0.001$; partial $\eta^2 = 0.424$ (see Fig. 1).

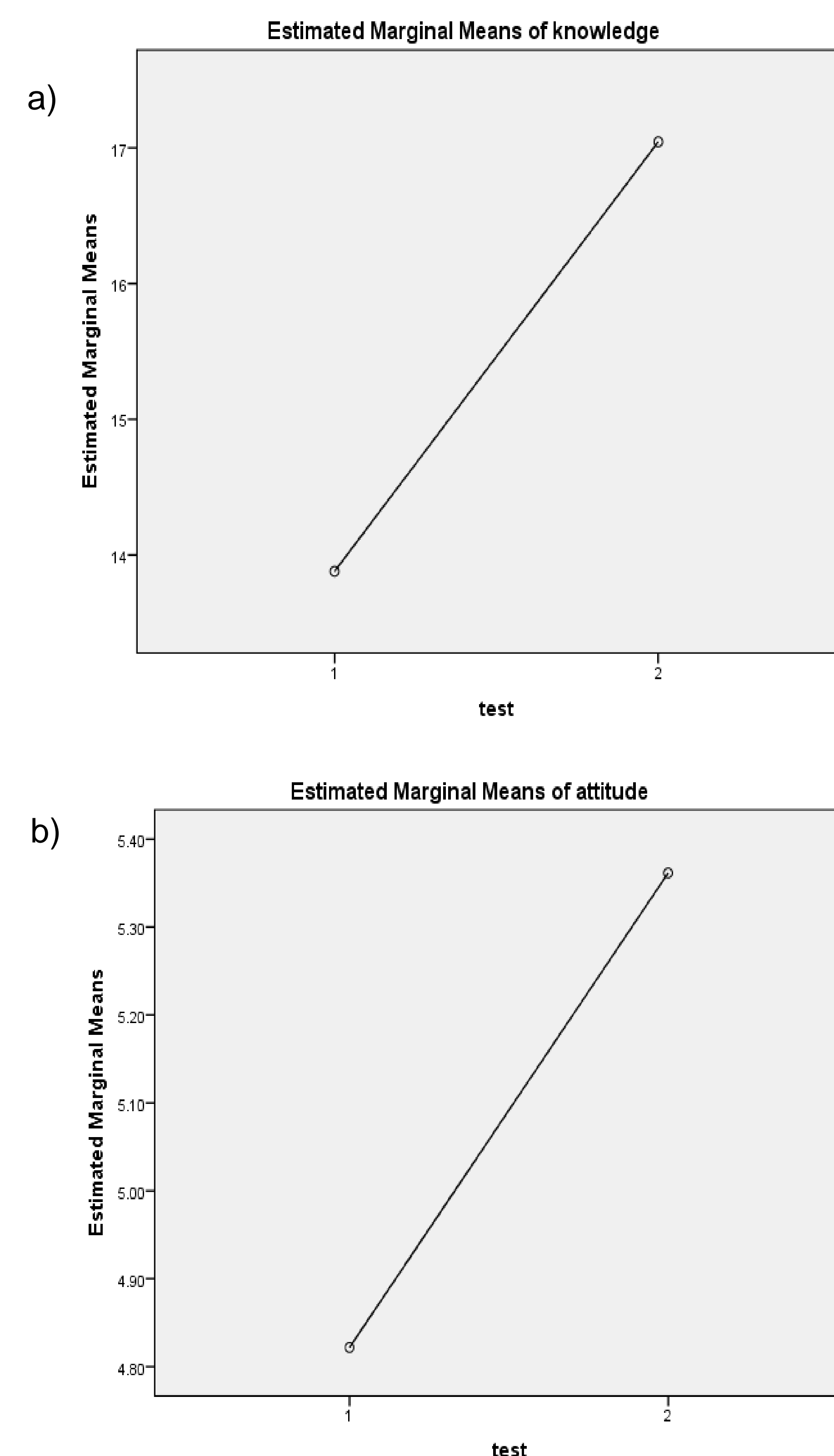


Figure 1. Mean difference between pre- and post-test on knowledge (a) and attitude (b) items. Significant at $p < 0.001$.

There was a significant interaction effect for knowledge and prior training on mandated reporting: Wilks' $\lambda = 0.995$, $F(1,5375) = 27.603$, $p < 0.001$; partial $\eta^2 = 0.005$ (see Fig. 2). Main effects of the online training on knowledge performance were still significant: Wilks' $\lambda = 0.554$, $F(1,5375) = 4335.154$, $p < 0.001$; partial $\eta^2 = 0.446$. This highlights gains on posttest performance even though participants had prior training in mandated reporter

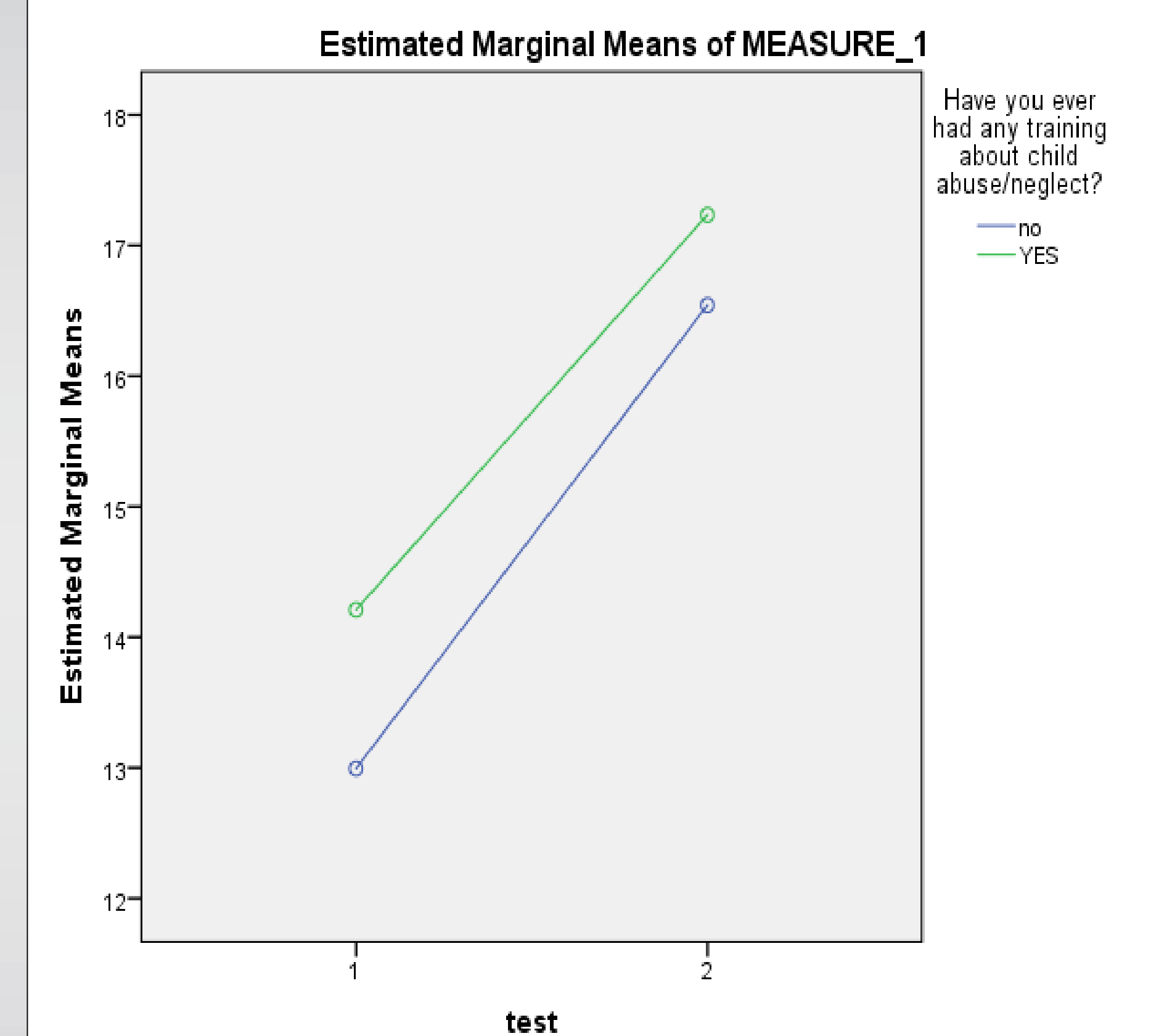


Figure 2. Mean difference between pre- and post-test on knowledge for participants with and without prior training

Discussion

Results from this study yielded the similar efficacy and effect sizes as did the initial randomized controlled trial of *iLookOut*.

They also demonstrate the feasibility of scaling an evidence-based, online mandated reporter training. Providing ECE providers open access to such training could help identify and prevent maltreatment of young children.

A 5-year randomized controlled trial is currently underway (1-R01-HD088448-02) to evaluate the impact of *iLookOut* on actual reporting practices of ECE providers.