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Are training and experience adapting evidence-based interventions associated with self-efficacy and attitudes? A cross-sectional survey of students and practitioners with varying levels of adaptation experience

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BACKGROUND

Increasing use of evidence-based interventions (EBIs) in local practice will reduce the gap between research and practice and improve health equity. Because the availability of innovations can lead to increased disparities if not equitably disseminated (McNulty et al., 2019), it is essential to ensure that EBIs are made available and, if needed, are modified to fit populations and settings to increase uptake and use. Adaptation of EBIs is often necessary to accelerate and improve implementation in new populations or settings and if done carefully, can improve fit while maintaining fidelity. Doing so should produce similar effects across communities, resulting in reduced or eliminated disparities among underprivileged communities (Castro & Yasui, 2017; Napoles, Santoyo-Olsson, & Stewart, 2013). Adaptation to a new setting and population (Cunningham & Card, 2014; Moore, Bumbarger, & Cooper, 2013) can be managed without disturbing elements that were essential to the EBI's effectiveness (Cunningham & Card, 2014). Thus, methods and frameworks for adaptation are receiving more attention among dissemination and implementation scientists and practitioners who seek to accelerate the effective adoption, implementation, and scale up of EBIs. Adaptation training including webinars, in-person training, and technical assistance (TA) could help the improve practitioner knowledge and skills necessary to make sure that EBIs are appropriately adapted and implemented with

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fidelity. In practice, however, despite the recent proliferation of adaptation frameworks, implementers generally receive little and insufficient training in how to apply them.

Adaptation frameworks typically provide a rationale and some guidance on modification of EBIs to increase fit and have been applied to various EBI topics, such as HIV/AIDS, pregnancy, and drugs and alcohol (Escoffery et al., 2019; Krivitsky et al., 2012; Movsisyan et al., 2019). Most adaptation frameworks found in our previous scoping review (Escoffery et al., 2019), however, provide only broad steps or guidelines without instructions for carrying out adaptation in a real-world setting. To properly use adaptation frameworks, practitioners may need tools, training and/or TA, as suggested by the *evidence-based system for innovation support* (EBSIS) framework derived from the Interactive Systems Framework for Implementation (Wandersman, Chien, & Katz, 2012). Within the framework, the Prevention Synthesis and Translation system designs interventions and creates tools for their widespread implementation by the Prevention Delivery System (e.g., local health department, community organizations) with support and TA from the Prevention Support System (e.g., state health department, universities). And, other implementation experts have suggested that specialized training and TA play a critical role in the effective selection and implementation of EBIs (e.g., Damschroder et al., 2009).

Although training modules on general EBI use have been included in capacity building efforts by The Cancer Prevention and Control Research Network (Escoffery et al., 2015; Escoffery et al., 2018) and other groups, and some dissemination efforts have been focused on TA for implementing specific EBIs (Allicock et al., 2012; Resnicow et al., 2004), federal training about adaptation and implementation in different settings and populations is still not widely available. Further, little is known about the individual benefits of training and TA for practitioners adapting EBIs (Wandersman et al., 2012).

AIMS

We used the opportunity of the baseline survey for the evaluation of IM-Adapt Online, a newly developed decision support tool (Fernandez, Hartman, Wood, Escoffery, & Mullen, 2017) to explore whether practitioners and students' general exposure to EBI training or TA is associated with greater self-efficacy in adapting EBIs and with their attitudes toward using EBI's. Specifically, we assessed the correlation between prior training or TA in evidence-based interventions and self-efficacy in performing general and specific EBI adaptation behaviors and attitudes toward EBIs, comparing students and practitioners with differing levels of EBI adaptation experience. These data could help inform capacity building on adaptation of evidence-based practices for health practitioners and researchers.

METHODS

Data Source and Design

We analyzed data from a cross-sectional survey of public health students and practitioners (n=89). Data were collected between January 10th and June 20th, 2019 as the baseline of an evaluation of IM-Adapt Online, a tool developed for cancer control practitioners to guide and document the EBI adaptation process. The survey was approved by the Institutional

Review Boards of Emory University and The University of Texas Health Science Center at Houston.

Eligibility for the evaluation included 1) being a public health practitioner or student; 2) having regular access to the internet, and 3) being willing to use the online tool to engage in a cancer prevention and control planning or adaptation process (whether for an actual program, grant proposal, or training purposes). Respondents were recruited across four groups to represent a range of experience with EBI adaptation: Student or practitioner 1) Already adapted, 2) Engaging in an adaptation, or 3) Planning an adaptation; or 4) Student not in the previous groups. All respondents who completed the survey received a $25 gift card. All those who gave online consent, received a one-time link to the SurveyMonkey questionnaire. Non-responders received up to 3 reminders.

IM-Adapt Online

IM-Adapt Online is based on the Intervention Mapping framework which offers detailed steps in program planning and has been simplified for the adaptation process. This tool divides adaptation into five steps: 1) **A**nalyze the problem and create a logic model of change for the at-risk population and environmental change agents; 2) **D**iscover potential solutions (existing EBIs); 3) **A**dapt the best fitting EBIs to fit the new population and context; 4) **P**lan implementation; and 5) **T**est progress (via process and outcome evaluation). Both specific and general EBI adaptation behaviors included in the survey items correspond with behaviors necessary for completing each of the above steps.

Measures

Independent variables—Background questions included socio-demographic characteristics and information about participants' job and organization, and previous training or TA about EBIs. Those who had received training or TA were asked about the content, time since training, source, and duration. We drew survey items from a pilot survey of health practitioners who worked in cancer control and were interested in planning or implementing EBIs. We conducted descriptive and psychometric analyses of the self-efficacy in performing specific EBI adaptation behaviors and attitudes toward evidence-based practices scales. Items that did not perform well to the total scale or subscales were removed.

Dependent Variables

Self-efficacy for performing general EBI adaptation behaviors.: Respondents were asked to rate how well they could perform six global EBI objectives (i.e., EBI adaptation behaviors) derived from the original IM-Adapt steps (Bartholomew Eldredge L K et al., 2016; Bartholomew et al., 2011). The general competencies responses ranged from 1=not very well to 5=very well.

Self-efficacy for performing specific EBI adaptation behaviors.: Respondents were asked to rate their level of confidence in performing twenty-four specific EBI adaptation behaviors that corresponded with each IM-Adapt Online step. The original set of items was assembled by grant developers led by Dr. L. Kay Bartholomew-Eldredge, co-founder

of the Intervention Mapping approach (Bartholomew Eldredge L K et al., 2016; Mullen & Fernandez, 2012). Preliminary work with exploratory factor analyses provided the basis for removing items that did not contribute to the overall reliability of the subdomain scales (Cronbach's Alpha). Respondents rated their self-efficacy on a scale of 1=Not very sure to 5=Very sure.

***Attitudes toward evidence-based practices* (EBPs).:** Respondents answered 11 statements that assessed attitudes about EBPs or barriers to using EBPs (Hannon et al., 2010). They rated these statements on a scale of 1=Not very sure to 5=Very sure. Based on preliminary scale development with exploratory factor analyses, we removed 5 items that did not contribute to the overall scale reliability (Cronbach's Alpha).

Data analysis

All data were analyzed in SPSS version 24.0. We calculated frequencies of descriptive statistics to explore respondent characteristics, EBI training, self-efficacy, and performance of EBI adaptation behaviors. We calculated total scores for attitudes toward EBIs and self-efficacy for performance of EBI adaptation behaviors scales. We then compared data between students and health practitioners (all other groups), and across the four EBI experience groups. We conducted Chi-square tests to determine statistical differences in proportions across these groups. Statistical significance was determined at $p < 0.05$. For the scales, we calculated consistency reliability using Cronbach's alpha.

RESULTS

Description of respondents (Tables 1 and 3).

Of the 89 respondents who completed the baseline survey, the majority were female (85%) and students (63%). Practitioners most commonly identified as researchers (40%) and the most reported that at least 50% of their job involved planning or implementing programs (58%). Respondents were grouped by the authors based on their level of experience with adaptation, with the largest group being those planning an adaptation (36%). Experience with EBIs was mixed: Some had adapted an EBI developed by others (38.2%), used an EBI recommended by the *Community Guide to Preventive Services* (39.3%) (Guide to Community Preventive Services, 2019) or used an EBI without adaptation (18.0%). Most (62.6%) had received training or TA about EBIs, 72.4% in the past 2 years. At least three quarters of those with training or TA said the training included content on at least one aspect of EBIs listed on the survey. The most frequently reported training content was using websites to find EBIs (92%) and the least frequent, adapting to fit your community (74%). Interest in adaptation (86.5%) and evaluation (79.8%) were rated the highest among adaptation training options.

Self-efficacy for performing general EBI adaptation behaviors (Table 2).

Overall self-efficacy for general EBI adaptation behaviors was M=3.59 (SD=0.74) with lower ratings in planning for adaptations (M=2.09, SD=0.70), assessing fit of EBIs to their local context (M=2.28, SD=0.77), and making an implementation plan for adaptations (M=2.35, SD=0.76). Self-efficacy ratings did not differ between students and practitioners

on general EBI adaptation behaviors (3.53 vs. 3.72, respectively) (F= 0.09, df=89, p=0.25, F=1.49, df=79, p=0.93). We also assessed differences in self-efficacy for performing the general EBI adaptation behaviors among those who received previous EBI training or TA compared to those who had not. There was a statistically significant difference in self-efficacy for general EBI adaptation behaviors, with higher levels of self-efficacy reported by those who had received training or TA on EBIs previously versus those who had not (3.86 vs. 3.12, t(86)=5.15, p<0.001).

Self-efficacy for performing specific EBI adaptation behaviors (Table 3).

Overall, respondents reported higher self-efficacy for behaviors associated with four out of the six adaptation steps: analyzing the situation (M=3.59, SD=0.89), discovering potential solutions (M=3.55, SD=1.04), implementing (M=3.56, SD=1.12) and testing progress/ evaluating (M=3.52, SD=1.04). Self-efficacy ratings did not differ between students and practitioners (3.48 vs. 3.50); however, respondents with prior EBI training were significantly more likely to have higher self-efficacy for EBI adaptation behaviors across the behavior subdomains and in total than those who did not (3.79 vs. 3.03, F=12.68, df=79,p=0.00). The six steps had internal consistency scores of 0.84–0.92.

Attitudes toward EBIs (Table 4).

Overall scores indicated moderate-neutral attitudes (M=3.28, SD=0.38) toward EBIs. The most positive statement was about the effectiveness of EBIs (M=4.08, SD=0.73) (Table 4). Other items regarding EBIs were close to neutral, with little variance. The total attitudes score did not differ between those who had prior EBI training (M=3.27, SD=0.41) and those who had not (M=3.29, SD=0.33) (F(1)=0.50,p=0.82).

Differences in self-efficacy for general and specific EBI adaptation behaviors and attitudes towards EBIs by adaptation experience level (Table 5).

When the relation between training and self-efficacy was examined by adaptation experience level, we did not find any significant differences within experience level (range of n per level = 15 – 32). Self-efficacy scores, both general and specific, were consistently higher among those with training. For attitudes, there were virtually no differences within adaptation experience groups.

DISCUSSION

We found an association between training/TA in using EBIs and self-efficacy for adapting EBIs. Those with previous training/TA had higher self-efficacy ratings on most general and specific EBI adaptation behaviors. As with previous studies, we found that most health practitioners were interested in program adaptation (Escoffery, Carvalho, & Kegler, 2012; Escoffery et al., 2015). Not surprisingly our respondents reported the lowest self-efficacy for adaptation planning, assessing EBI fit to their local context, and making the adaptations. These results suggest the importance of training on adaptation skills beyond general training about EBIs. A recent systematic review of adoption of EBIs among community-based organizations found that the majority reported the need for guidance around adaptation as a barrier to implementation (Bach-Mortensen, Lange, & Montgomery, 2018). Training will

ensure capacity building to increase the effective adoption, adaptation, and implementation of EBIs (Leeman et al., 2015).

Although we expected to find an association between training and EBI attitudes, participant attitudes towards EBIs were generally close to neutral, except for a more positive rating about reassurance that EBIs "work" (however, there was also some agreement that EBIs "lack real world evidence"). We recommend that this be investigated further because of the potential importance of the influence of attitudes toward EBIs use. To the extent that adaptation may be seen as overly difficult or unsuccessful in fitting a local setting and population, a decision support tool, such as IM-Adapt Online, might offer the additional guidance and support to increase practitioners' self-efficacy that they could complete an adaptation more easily and successfully.

Exploring the association of self-efficacy and attitudes by EBI adaptation experience level, we did not find any differences in self-efficacy for general or specific EBI adaptation behaviors. While we expected to find that those who had already adapted or were engaging in adaptation to have higher self-efficacy compared to students or those planning adaptation, the null finding potentially highlights the importance of training/TA on self-efficacy for EBI adaptation behaviors. Future studies exploring adaptation experience and self-efficacy might benefit from a more nuanced measure of adaptation experience. Our survey only assessed adaptation experience using one question about general level of adaptation experience. Expanding this measure to include additional information about participants' role in previous adaptation experience may produce a more accurate assessment of the association with self-efficacy.

Likewise, our results also show no difference in attitudes towards EBIs by adaptation experience level. Again, we expected to find more positive attitudes among participants who had already adapted or were engaging in adaptation. While the within group numbers were small, these results warrant further exploration into attitudes about EBIs among practitioners with EBI adaptation experience.

Lastly, we explored total self-efficacy and attitude scores by both EBI adaptation experience level and previous training/TA. While self-efficacy scores were higher within each adaptation experience level for those who had EBI training, there were no significant differences in scores by training. For attitudes, there were no apparent trends within experience level for those who had training and those who did not. These findings could be the result of low statistical power. However, we did not explore the relation between EBI adaptation experience level and training/TA, therefore, we cannot rule out experience level as a confounder on the association between training and self-efficacy and attitudes.

Trainings on EBI adaptation

Although general guidance for adaptation exists (Escoffery et al., 2019; Krivitsky et al., 2012; Movsisyan et al., 2019), to our knowledge there are few training programs that focus specifically on the process of program adaptation other than Putting Public Health Evidence into Action (Cancer Prevention and Control Research Network, 2017). Evidence from a community-wide initiative to increase use of teen pregnancy prevention EBIs shows that

training and TA are important components of capacity-building activities for implementers, further highlighting their value (House, Tevendale, & Martinez-Garcia, 2019). Decision-support tools may also be helpful in guiding both practitioners and researchers step-by-step through an adaptation process with specific tasks of outlining their community or clinic needs and health outcomes, finding EBIs, assessing EBI matches with the new audience and setting, creating adaptation and implementation plans, and evaluating the adapted EBI. To ensure that decision-support tools are uniformly effective, an assessment to determine if tools should be tailored for practitioners with and without training is needed.

Strengths and Limitations

This study has several strengths. We recruited participants from national groups and schools of public health who were interested in adaptation training and assessed attitudes, self-efficacy and behaviors around program adaptation in detail. Most studies of EBI training focus on defining evidence and finding EBIs only, and to our knowledge, this is the first study to assess the associations explored. The scales used were conceptually grounded in the Intervention Mapping steps and have a degree of validation among cancer control practitioners interested in EBI training (Hannon et al., 2010). One limitation was the small convenience sample of individuals who self-selected to participate in an incentivized pilot evaluation of IM-Adapt Online. Additionally, we did not assess knowledge or skills related to adaptation steps, and EBI adaptation behaviors were based on self-report. We did not assess the association between EBI adaptation experience and general training. General training on EBIs (e.g., advantages of use, where to find, etc.) does not address the same skills as an adaptation-specific training. Therefore, we cannot rule out general EBI training as a proxy for more robust experience in EBI adaptation training. Because of small numbers, we are not able to pinpoint adaptation training specifically as the driving factor in higher self-efficacy among those who reported previous training. Lastly, as a cross-sectional survey, we cannot infer temporality between the variables, however, there is only one plausible direction of association between training and self-efficacy; therefore, based on our results it is assumed that training can lead to increased self-efficacy for EBI adaptation behaviors.

IMPLICATIONS FOR PRACTICE AND RESEARCH

This study suggests the importance of capacity building through training and TA to increase the adoption and adaptation of EBIs. Often, health educators are asked to implement an EBI and generally they choose programs that match with their audience or setting. Learning about adaptation extends the portfolio of EBIs practitioners can choose from that can improve health in communities. In addition, training in adaptation would build a workforce of health practitioners who can extend the reach of EBIs to various audiences through the modification of content or strategies. More adaptation-specific training may be warranted to assist students, practitioners and researchers undertaking the adaptation process and implementing EBIs. For students, the concept of adaptation can be incorporated into program planning courses, providing an in-depth introduction into EBIs and specific adaptation steps necessary to alter EBIs with fidelity. For health practitioners, training on adaptation can ensure that agencies such as health departments receive accreditation and ensure that they consider the use and adaptation of EBIs to address disease prevention

and control in their program planning efforts. Furthermore, adapted programs also have the potential to increase the use and reach of evidence-based programs by offering more interventions to program planners. Future training on adaptation of EBIs can help practitioners tailor new versions to meet the specific needs of populations and address health disparities.

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Table 1.

Respondent Characteristics and Experience with Evidence-based Public Health Interventions

Gender, n (%)	
Female	76 (85.4)
Age, mean (SD)	33.5 (10.5)
Race n (%)	
American Indian or Alaska Native	1 (1.1)
Asian	12 (13.8)
Black or African American	18 (20.7)
White	49 (56.3)
Hispanic, n (%)	20 (22.7)
Highest Level of Education, n (%)	
Some college but no degree	1 (1.1)
College/Bachelor's (BS/BA)	22 (24.7)
Master's	44 (49.4)
Doctorate (PhD/MD/DrPH)	22 (24.7)
Student, n (%)	58 (65.2)
Student Training Level	
Masters or MPH	31 (55.4)
Doctoral	22 (39.3)
Postdoctoral	1 (1.8)
Other (please specify)	2 (3.6)
Position, n (%)	
Health educator/health promotion specialist	8 (8.8)
Outreach coordinator/volunteer	2 (2.2)
Program manager/coordinator/director	12 (13.2)
Program planner/implementer	2 (2.2)
Researcher	34 (37.3)
Student	24 (26.4)
Other	9 (9.9)
Length of Time in Current Position, n (%)	
<12 months	25 (28.4)
1 to 3 years	33 (37.5)
3 to 5 years	15 (17.0)
5 to 10 years	10 (11.4)
>10 years	5 (5.7)
Type of Organization (n=32) *n (%)	
Business/for-profit	1 (3.1)
College or university	15 (46.9)
County, city, or state health department	5 (15.7)
Federal government agency	1 (3.1)
Health care delivery organization (hospital, clinics, etc.)	7 (21.9)

Voluntary health or service organization (non-profit)	2 (6.2)
Other	1 (3.1)
Percentage of Job Involving Planning or Implementing Programs n (%)	
All (100%)	19 (21.3)
More than half (51–99%)	22 (24.7)
About half (50%)	11 (12.4)
Less than half (0–49%)	37 (41.6)
Ever Received Training or TA on EBIs, n (%)	58 (65.2)
Length of Time since Last EBI Training	
Past year	26 (44.8)
1–2 years	16 (27.6)
3–5 years	13 (22.4)
Over 5 years	3 (5.2)
Training on EBIs, n (%)	
Advantages of EBIs (n=57)	51 (87.9)
Using websites to find an EBI (n=48)	44 (91.7)
Judging the evidence base of an EBI (n=51)	44 (86.3)
Deciding whether an EBI fits your community setting (n=53)	43 (81.1)
Implementing an EBI (n=54)	43 (79.6)
Evaluating an EBI (n=52)	43 (82.7)
Adapting an EBI to fit your community setting (n=50)	37 (74.0)
Intervention Experience, n (%)	
Developed your own intervention(s)	33 (37.1)
Used an EBI that someone else developed without making any changes	16 (18.0)
Adapted an EBI that someone else developed	34 (38.2)
Used an evidence-based approach by the Community Guide	35 (39.3)
Adaptation Feature of Interest, n (%)	
Get a visual logic model without having to draw it	56 (62.9)
Find EBIs	50 (56.2)
Select an EBI	43 (48.3)
Adapt an EBI	77 (86.5)
Implement an EBI	58 (65.2)
Evaluate an EBI	71 (79.8)
Adaptation Experience Group n (%)	
Already adapted (practitioner or student)	15 (16.9)
Engaging in an adaptation (practitioner or student)	15 (16.9)
Planning an adaptation (practitioner or student)	32 (36.0)
Student (none of the above)	27 (30.3)

* excludes students who hold no other position; categories are not exclusive

Table 2.

Self-efficacy in Performing General EBI Adaptation Behaviors

	Mean	EBI Training/TA	
		Yes N=56	No N=33
Define program adaptation	2.46 (.77)	3.93 (.71) *	2.85 (1.06)
Conduct a community assessment to engage stakeholders	2.62 (.66)	4.11 (.71)	3.36 (.93)
Create a logic model of change for a health topic	2.65 (.71)	4.05 (.72) *	3.39 (1.20)
Find evidence-based interventions (EBIs)	2.70 (.59)	4.28 (.73) *	3.56 (1.01)
Systematically consider what types of adaptation you might want to make in content, delivery, context, implementation approaches (e.g. training), and evaluation	2.28 (.77)	3.56 (.86) *	3.03 (1.13)
Develop an adaptation plan	2.09 (.79)	3.32 (.85) *	2.73 (1.13)
Develop an implementation plan for the adapted program	2.35 (.76)	3.75 (.88)*	2.97 (1.01)
Total Global Competencies	3.59 (.74)	3.86 (.55) *	3.12 (.79)

Responses ranged from 1=not very well to 5=very well

* $p < 0.05$.

Cronbach's alpha = 0.863

Table 3.

Self-efficacy in Performing Specific EBI Adaptation Behaviors

	Most recent planning effort (Large extent/ completely) n (%)	Mean (SD)	EBI Training/TA	
			Yes N=53	No N=33
Step 1				
Describe the specific behavior(s) that you want to address with your program	61 (68.5%)	4.08 (.83)	4.22 (.64)	3.84 (1.03)
Identify the specific factors that influence the behaviors of interest (i.e., determinants)	54 (62.6%)	3.88 (.90)	3.96 (.78)	3.76 (1.06)
Describe the specific environmental conditions you want to address	42 (49.4%)	3.82 (1.07)	4.03 (.88)	3.48 (1.25)*
Develop a visual logic model describing how the program is going to influence the outcomes	35 (41.2%)	3.40 (1.21)	3.66 (.98)	2.97 (1.43)*
Select design features (look and feel, graphics, etc.) appropriate for your program	25 (28.1%)	3.14 (1.22)	3.36 (1.09)	2.78 (1.34)*
Select delivery channels appropriate for your program	40 (47.1%)	3.26 (1.25)	3.53 (1.07)	2.81 (1.40)*
Step 2				
Find EBIs that address your health problem	41 (48.2%)	3.63 (1.13)	3.94 (.84)	3.12 (1.34)*
Assess the strength of the evidence for an EBI you are considering	37 (44.6%)	3.54 (1.16)	3.88 (.89)	3.00 (1.35)*
Assess the fit between EBIs you've found and your community needs	39 (45.9%)	3.47 (1.19)	3.85 (.70)	3.00 (1.26)*
Step 3				
Compare the factors and methods used in the original EBI to the needs of your community/ setting	36 (42.4%)	3.55 (1.10)	3.89 (.80)	3.03 (1.31)*
Compare your community needs to the environmental conditions promoted by the EBI	34 (40.0%)	3.44 (1.21)	3.77 (.91)	2.91 (1.44)*
Compare your community needs to the EBI's design features and delivery channels	27 (31.8%)	3.34 (1.15)	3.57 (.97)	3.66 (1.33)*
Identify the EBI's essential elements/ "active ingredients" that have made it effective previously	34 (40.0%)	3.31 (1.13)	3.66 (.90)	2.76 (1.25)*
Decide about adaptations that need to be made to the EBI to fit your community needs	36 (42.4%)	3.37 (1.17)	3.66 (.94)	2.91 (1.35)*
Step 4				
Revise the existing materials and activities to better fit your community needs	40 (47.1%)	3.40 (1.04)	3.72 (.99)	3.18 (1.36)*
Create new materials or activities to better fit community needs	36 (42.4%)	3.51 (1.17)	3.79 (.99)	3.18 (1.38)*
Pretest adapted materials and activities among intended users	23 (27.1%)	3.55 (1.18)	3.89 (.89)	3.09 (1.16)*
Step 5				
Make adaptations to implementation strategies included in the original EBI	32 (37.6%)	3.41 (1.15)	3.71 (.97)	2.94 (1.27)*
Identify who will implement the EBI and what they will do	39 (45.9%)	3.46 (1.07)	3.75 (.89)	3.00 (1.17)*
Identify what support materials and training are needed to motivate and enable implementers	33 (38.8%)	3.25 (1.16)	3.52 (1.02)	2.81 (1.26)*
Step 6				
Write process evaluation questions	30 (35.3%)	3.36 (1.06)	3.64 (.91)	2.91 (1.12)*

	Most recent planning effort (Large extent/ completely) n (%)	Mean (SD)	EBI Training/TA	
			Yes N=53	No N=33
Choose indicators and measures for process questions	33 (38.8%)	3.46 (1.12)	3.83 (.87)	2.97 (1.31)*
Write outcome evaluation (i.e. effect) questions	43 (50.6%)	3.61 (1.17)	4.02 (.79)	2.97 (1.40)*
Choose indicators and measures for outcome (i.e. effect) evaluation Questions	45 (52.9%)	3.50 (1.11)	3.88 (.81)	2.91 (1.28)*
Total Step 1 Behaviors	α=0.856	3.59 (.89)	3.80 (.71)	3.26 (1.07)*
Total Step 2 Behaviors	α=0.842	3.55 (1.04)	3.89 (.70)	3.00 (1.26)*
Total Step 3 Behaviors	α=0.919	3.40 (1.04)	3.71 (.80)	2.91 (1.19)*
Total Step 4 Behaviors	α=0.907	3.51 (1.00)	3.77 (.80)	3.10 (1.15)*
Total Step 5 Behaviors	α=0.862	3.56 (1.12)	3.64 (.91)	2.91 (1.12)*
Total Step 6 Behaviors	α=0.922	3.52 (1.04)	3.88 (.74)	2.94 (1.18)*
Total Steps Behaviors		3.49 (.89)	3.79 (.65)	3.03 (1.02)*

Responses ranged from 1=not very well to 5=very well.

*$p<0.05$.

Table 4.

Attitudes Toward EBIs by previous training or TA

(n=87–89)

	Mean (SD)	Training in EBI	
		Yes N=53	No N=33
The research that shows that an EBI works is reassuring.	4.08 (.73)	4.05 (.74)	4.12 (.74)
EBIs lack real-world evidence.^	2.50 (1.05)	2.62 (1.04)	2.30 (1.05)
EBIs do not come with very much information about how to implement them.^	3.20 (1.04)	3.28 (1.00)	3.06 (1.10)
People in our community would not respond well to an EBI developed somewhere else.^	2.70 (.98)	2.67 (.87)	2.75 (1.14)
Using EBIs keeps our organization from getting the credit that we could get for a new intervention.^	2.34 (.93)	2.24 (.91)	2.51 (.94)
EBIs are too costly.^	2.88 (.91)	2.91 (.96)	2.84 (.83)
EBIs require more resources than other interventions.^	2.93 (.98)	3.09 (1.06)	2.67 (.78)
EBIs won't work better than what we are doing already.^	2.28 (.91)	2.14 (.86)	2.51 (.97)
EBIs are easy to implement.	2.83 (.88)	2.83 (.84)	2.85 (.94)
EBIs are easy to find or get.	2.85 (.86)	2.83 (.84)	2.87 (.89)
EBIs are easy for us to adapt for use in our community.	2.85 (.91)	2.76 (.89)	3.00 (.94)
Total Attitudes	3.28 (.38)	3.27 (.41)	3.29 (.34)

^ reversed coded - negatively worded items.

Responses ranged from 1=Not very sure to 5=Very sure.

Cronbach's alpha = 0.550

Table 5.

Comparison of self-efficacy scores and attitudes of EBI Experience Groups by Previous Training or TA

Measure/Experience Group	Adaptation Training/TA		
	Yes (N=49–51)	No (N=33)	
Total self-efficacy score of general EBI adaptation behaviors			
Planning (n= 32)	3.87 (.63)	3.34 (.84)	
Engaging	3.76 (.73)	3.02 (.57)	
Already Adapted	3.85 (.50)	3.21 (.90)	
Student	3.93 (.41)	2.92 (.85)	
Total	3.86 (.55)*	3.12 (.79)	t(46)=4.63, p<.0001
Total self-efficacy score of specific EBI adaptation behaviors (combined)			
Planning (n=31)	3.81 (.63)	3.26 (.87)	
Engaging	3.52 (.84)	2.77(.22)	
Already Adapted	3.66 (.74)	3.40 (1.55)	
Student	3.98 (.48)	2.78 (1.08)	
Total	3.79 (.65)*	3.03 (1.02)	t(47)=4.04, p<.0001
Total score for attitudes toward EBPs			
Planning (n= 31)	3.33 (.17)	3.26 (.40)	
Engaging	3.09 (.37)	3.20 (.30)	
Already Adapted	3.34 (.46)	3.36 (.39)	
Student	3.27 (.28)	3.38 (.27)	
Total	3.27 (.41)	3.29 (.34)	t(46)=0.231, p=.818