

# An Evaluation of *Trauma Smart*<sup>®</sup> in Three Community Head Start Programs and Three Elementary Schools: Annual Expansion Report

September 1, 2017



## INTRODUCTION

The purpose of this report is to provide evaluation results for *Trauma Smart*<sup>®</sup> in three Community Head Start Programs with multiple sites and three elementary schools with children up to grade 6. This report is being prepared with data collected as of August 15, 2017.

## BACKGROUND

Crittenton Children's Center began working with early childhood sites across the United States in 2015 in an effort to disseminate *Trauma Smart*<sup>®</sup>, a program intended to support young children, and the adults who care for them, by calmly navigating difficult life challenges and combining practical, hands-on tools and effective coping strategies; and bringing them into the places where kids learn and play every day. Crittenton Children's Center began implementing Trauma Smart in elementary schools during the 2016-2017 school year. The goals of the program are to support children in situations of adversity by:

- Helping children, families and providers cope with adversity and stress,
- Helping children learn to express their emotions in a healthy way,
- Preparing children for social and academic success,
- Helping parents bond with their children and
- Helping parents teach their children resiliency skills,
- Actively including parents and families in their children's school experience, and
- Promoting a positive and stimulating work environment for teachers and school personnel.

The overall goal of *Trauma Smart*<sup>®</sup> is to lay the groundwork for better emotional resilience and health of our children and inevitably our society.

In an effort to evaluate the impact of the *Trauma Smart*<sup>®</sup> program in Community Head Start programs and elementary schools, the Crittenton Children's Center contracted with Tulane University to evaluate the effectiveness of the *Trauma Smart*<sup>®</sup> program. The project spans three years, from fall 2016 to winter 2018.

## MEASURES

Measures for this study include 1) Attitudes Related to Trauma-Informed Care (ARTIC) Scale, 2) Learning Check/Satisfaction data, and 3) Smart Connections Module Evaluations.

## Attitudes Related to Trauma-Informed Care (ARTIC) Scale

The ARTIC-45 measures the favorable or unfavorable attitudes of service providers toward Trauma-Informed Care (TIC). It is a 15-20 minute Psychometric Measure of TIC, which includes 45 items and seven subscales (five core and two supplementary sub-scales). Subscales are (a) underlying causes of problem behavior and symptoms, (b) responses to problem behavior and symptoms, (c) on-the-job behavior, (d) self-efficacy at work, (e) reactions to the work, (f) personal support of TIC, and (g) system-wide support for TIC. Each of the five core subscales has seven items; each of the two supplementary subscales has five items (Baker, Brown, Wilcox, Overstreet & Arora, 2015; see Table 1). All are presented in pairs of bipolar statements with contrasting TIC-favorable and TIC-unfavorable attitudes. For example, the unfavorable attitude for one item is “rules and consequences are the best approach when working with people with trauma histories,” while its TIC-favorable opposite is, “focusing on developing healthy, healing relationships is the best approach when working with people with trauma histories.” Respondents utilize a seven-point bipolar Likert scale between the contrasting statements of each pair to characterize their attitudes on a bipolar spectrum. High scores in each subscale represent attitudes more favorable to TIC. Items 36-45 are scored on a 1-8 bipolar scale with scores ranging from 1-7 and 8 being scored for the N/A option; 8 is then coded as missing data. Internal consistency reliability was strong for the ARTIC-45 ( $\alpha=.93$ ). See Appendix for full measure.

Table 1. ARTIC Subscale Description

Subscale	Description	Items
Underlying Causes	Emphasizes internal and fixed versus external and malleable	1, 6, 11, 16r, 21, 26r, 31
Responses	Emphasizes rules, consequences, and eliminating problem behaviors versus flexibility, feeling safe, and building healthy relationships	2r, 7, 12r, 17r, 22r, 27, 32r
On the Job Behavior	Endorses control-focused behaviors versus empathy-focused behaviors	3r, 8, 13r, 18, 23r, 28, 33r
Self-Efficacy	Endorses feeling unable to meet the demands of working with a traumatized population versus feeling able to meet the demands	4, 9r, 14, 19r, 24r, 29, 34r
Reactions	Endorses under-appreciating the effects of vicarious traumatization and coping by ignoring versus appreciating the effects of vicarious traumatization and coping through seeking support	5, 10r, 15r, 20, 25r, 30, 35r
Personal Support	Reports concerns about implementing TIC versus being supportive of implementing TIC	36r, 38, 40r, 42r, 44

System Support	Reports feeling supported by colleagues, supervisors, and the administration to implement TIC versus not feeling supported	37, 39r, 41r, 43, 45r
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*Note: r = reverse coded*

### *Learning Checks and Satisfaction*

The Learning Checks are ten, three-item, multiple-choice, quiz-style measures designed to evaluate participants' learning after each of the ten, two-hour professional development training seminars included in the curriculum. The Satisfaction measure is a one-item measure that asks participants "What is your overall satisfaction with this training session" using a five-point Likert scale ranging from "very dissatisfied" (1) to "very satisfied" (5).

### *Smart Connections Module Evaluations*

The Smart Connection Module Evaluations are ten eight-item assessments for parents or caregivers, including foster parents, who optionally participated in a Trauma Smart, Smart Connections training. The questions include five-point Likert scales ranging from "not aware" to "very aware" as well as open-ended questions. The purpose of the assessment is for parents and caregivers to rate their awareness of central constructs, likelihood of using newly learned skills, and satisfaction with modules. The assessment promotes reflection; there are no correct answers, though growth between items that ask about "prior to this workshop" and those that ask about "after this workshop" is expected. Not all sites opt to offer the Smart Connections Modules during the first year of implementation. All organizations implementing Trauma Smart are expected to offer Smart Connections by the second year of implementation.

### **SAMPLE**

The sample for this report included three Community Head Start programs and three elementary schools located in four U.S. states. Head Start Programs and elementary schools were located in urban, rural and suburban areas. For the ARTIC there were 520 participants at pre-test and 345 participants at post-test. For five of the six programs/schools, the data was not matched by identifiable participant information and in one Head Start program matching data was available. Sample sizes for the 10 Learning Check modules ranged from 355 to 477 participants per module. Sample sizes for the 10 Smart Connection modules ranged from 4 to 21 participants per module.

## RESULTS

As of August 15, 2017, pre- and post-ARTIC data were received for each of the six programs and schools, and data from Learning Check modules 1-10 were also received. Limited Smart Connections data was received from two of the six sites. ARTIC data were cleaned by checking descriptive statistics for any outliers. Evaluators reverse coded items as identified by the assessment developers. Next evaluators calculated subscale scores for each of the identified subscales: (a) underlying causes of problem behavior and symptoms, (b) responses to problem behavior and symptoms, (c) on-the-job behavior, (d) self-efficacy at work, (e) reactions to the work, (f) personal support of TIC, and (g) system-wide support for TIC. Subscales (f) and (g) are optional for participants at pretest, and many who are new to trauma-informed care opt not to complete them. On the ARTIC, higher scores indicate attitudes more favorable to trauma-informed care. Subscale means across the sample ranged from 5.3 – 6.0 (see Figure 1).

### *Pre- and Post-ARTIC*

Pre- and post-ARTIC data were received from three Head Start programs and three elementary schools. Data were cleaned and transformed as described above. The ARTIC was administered at the beginning of the training year, in fall 2016, and again at the end of the training year, in spring 2017.

To measure attitudes, pre- and post-ARTIC scores were analyzed by subscale (see Figure 1). The ARTIC is a new measure, so norms do not yet exist for the ARTIC. However, between subscales comparisons can be made to evaluate areas of relative strength or weakness, and the ARTIC can also detect changes in attitudes in the context of *Trauma Smart*<sup>®</sup> training.



Figure 1. Aggregated Pre and Post ARTIC Scores for Aggregated Three Community Head Start Programs and Three Elementary Schools to grade 6

Average ARTIC scores increased, or became more favorable, for all subscales and the overall ARTIC from pretest to posttest. Subscales "Personal Support" and "Responses" showed the largest gain scores from pretest to posttest (see Figure 1 and Table 2).

Table 2. Pre and Post ARTIC Descriptive Statistics for Aggregated Three Community Head Start Programs and Three Elementary Schools

	Pre			Post		
	N	Mean	Std Dev	N	Mean	Std Dev
Underlying Causes	520	5.32	.77	345	5.75	.75
Responses	520	5.46	.80	345	5.90	.81
On the Job Behavior	519	5.49	.73	345	5.88	.70
Self-Efficacy	520	5.57	.87	345	5.89	.75
Reactions	520	5.48	.82	345	5.84	.81
Personal Support	325	5.57	1.11	343	6.03	.94
System Support	421	5.32	1.32	341	5.68	1.06
<b>Overall ARTIC</b>	<b>520</b>	<b>5.45</b>	<b>.65</b>	<b>345</b>	<b>5.85</b>	<b>.63</b>

*Comparison of Pre- and Post-ARTIC Scores by Head Start Program or School*

Trauma Smart was implemented in six programs and schools. This section of the report compares the pretest and posttest program level data to the aggregated scores from all six programs/schools (“All”).

Table 3. Pre and post ARTIC Descriptive and Mean Difference Statistics for Head Start Programs and Elementary Schools Aggregated Data from all Six (ALL)

	Elem. School	Elem. School	Head Start	Elem. School	Head Start	Head Start	ALL
Underlying Causes	0.38	0.83	0.55	0.29	0.30	0.41	0.43
Responses	0.43	1.07	0.53	0.63	0.19	0.35	0.44
On the Job Behavior	0.32	0.81	0.46	0.33	0.24	0.43	0.39
Self-Efficacy	0.31	0.65	0.59	0.16	0.34	0.19	0.32
Reactions	0.36	0.85	0.55	0.12	0.34	0.29	0.36
Personal Support	0.53	0.96	0.90	0.51	0.31	0.42	0.46
System Support	0.07	0.98	0.61	0.34	0.33	0.47	0.36
<b>Overall ARTIC</b>	<b>0.39</b>	<b>0.90</b>	<b>0.55</b>	<b>0.31</b>	<b>0.30</b>	<b>0.36</b>	<b>0.40</b>

### Comparison of Pre- and Post-ARTIC

Matched data was available in one of the Head Start programs. Researchers conducted paired-samples t-tests to determine if the difference between mean pretest and posttest ARTIC scores was statistically significant for the participants who had individual identifiers. For all subscales and the Overall ARTIC pretest to posttest increases were statistically significant ( $p < .01$ ) (see Table 4). To facilitate interpretation of findings, researchers calculated effect sizes by dividing the adjusted pretest-to-posttest improvement by the pretest standard deviation. Effect sizes ranged from .30 - .55.

Table 4. Paired-Samples t-Test Results for ARTIC Scores from One Head Start Program

Subscale	N	Mean Diff	Std Dev	t-value	df	p Value	Effect Size
Underlying Causes	110	0.36	.77	4.93	109	<.01*	.49
Responses	110	0.31	.93	3.53	109	<.01*	.40
On the Job Behavior	110	0.37	.78	5.06	109	<.01*	.55
Self-Efficacy	110	0.27	.96	2.90	109	<.01*	.30
Reactions	110	0.28	1.04	2.83	109	<.01*	.35
Personal Support	68	0.45	1.43	2.60	68	.01*	.40
System Support	86	0.55	1.56	3.29	86	<.01*	.41
<b>Overall ARTIC</b>	<b>110</b>	<b>0.34</b>	<b>.76</b>	<b>4.77</b>	<b>109</b>	<b>&lt;.01*</b>	<b>.52</b>

\*Significant at the .01 level

### Learning Checks and Satisfaction Overall

Across the three Head Start programs and three elementary schools, the majority of participants chose the correct response on the learning check questions for each of the 10 modules. A few questions had more incorrect responses than others (see Learning module 4, question 3; Learning module 8, question 1; and Learning module 10, question 3). It was recommended that the multiple choice options for module 8, question 1 be reviewed and revised. Crittenton Children's Center has followed the recommendation. Average satisfaction ratings were also positive for all modules (range 89.1% - 97.7%) with the highest ratings for Modules 10, 2, and 1, and the lowest ratings for Modules 5, 8, and 4.



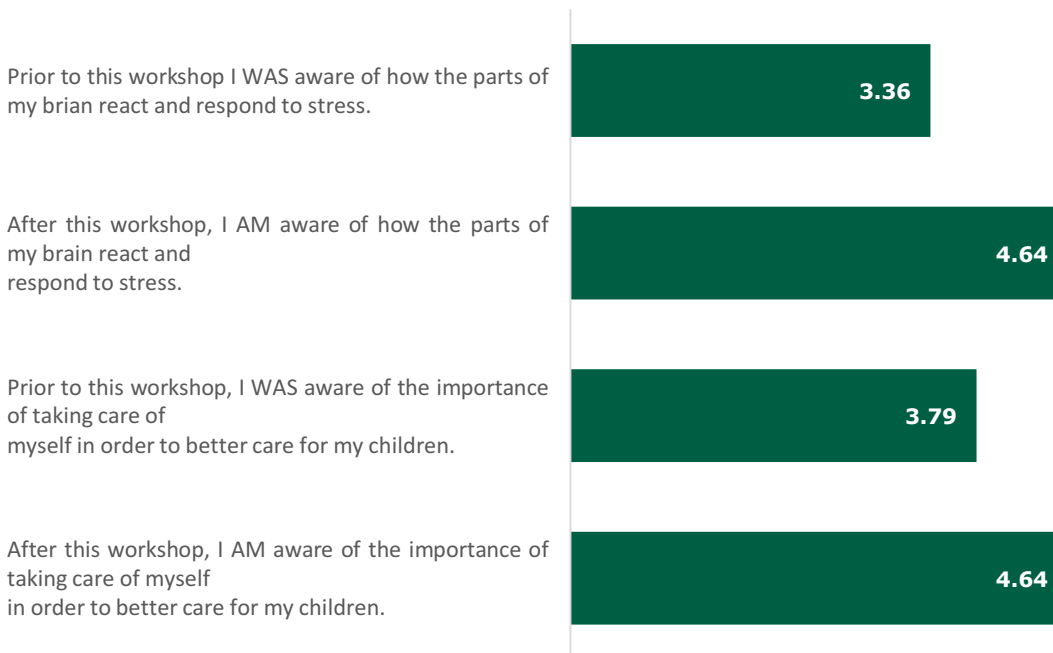
Table 5. Percent Correct by Staff Learning Module, Question, and Percentage Positive Satisfaction Rating

Learning Module	Question 1	Question 2	Question 3	Satisfaction
1	93.1%	96.6%	98.7%	96.2%
2	98.9%	96.1%	95.8%	97.6%
3	92.3%	93.2%	91.2%	95.1%
4	88.7%	94.0%	68.9%	91.0%
5	99.8%	86.0%	97.1%	89.1%
6	98.7%	97.4%	99.0%	92.8%
7	98.3%	98.6%	99.2%	94.1%
8	31.9%	91.9%	92.4%	90.9%
9	100%	99.4%	98.6%	93.2%
10	88.6%	96.1%	72.5%	97.7%

### Smart Connections Module 1

Smart Connections, the Parent Curriculum, Module 1 consists of six multiple choice questions. Fourteen participants took the first module with 36% of participants reporting they are caring for a child in state custody. Participants were asked to respond to four awareness questions after the workshop using a five-point satisfaction scale (1 = not aware, 3 = somewhat aware, 5 = very aware). Average participant scores ranged from 3.4 to 4.6 and the ratings increased from prior to the workshop to after the workshop (see Figure 34). For a full description of Smart Connections Module 1 questions see Appendix C.

Figure 34. Average Participant Awareness Ratings for Smart Connections Module 1



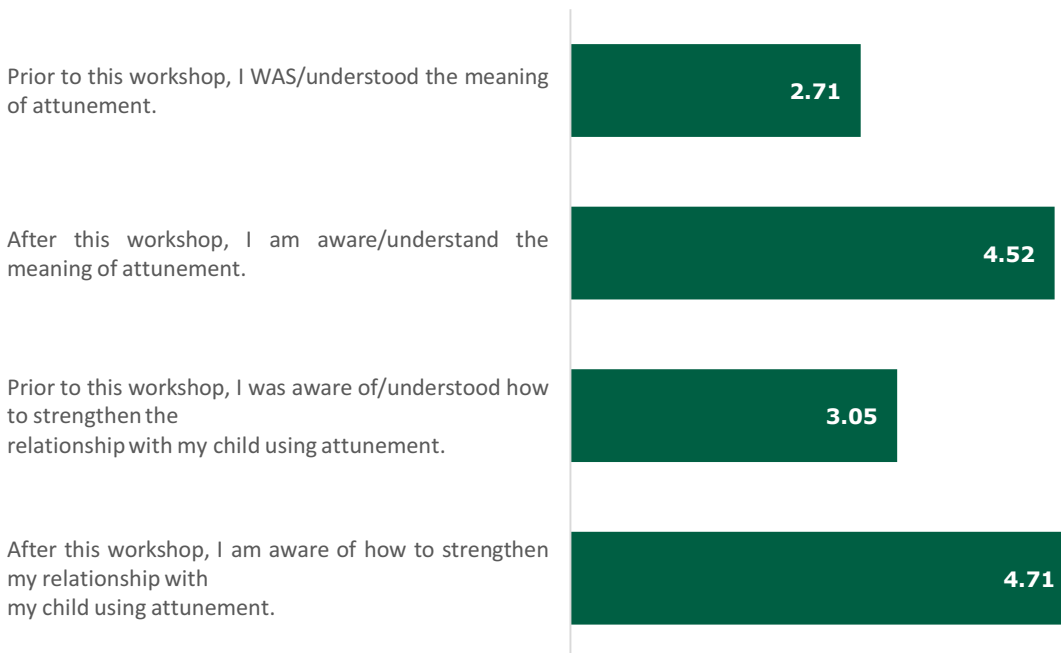
Next, participants were asked to rate how likely they were to practice what they learned in the workshop at home using a five-point satisfaction scale (1 = not likely, 3 = somewhat likely, 5 = very likely). The average participant score was 4.6, which shows that on average most participants were “very likely” to practice what they learned at home.

Lastly, participants were asked to rate their overall satisfaction with the training session using a five-point satisfaction scale (1= not satisfied, 3 = somewhat satisfied, 5 = very satisfied). The average participant score was 4.9, which shows that on average participants were “very satisfied” with the workshop Module 1.

### Smart Connections Module 2

Smart Connections Module 2 consists of six multiple choice questions. Twenty-one participants took Module 2 with 48% of participants reporting they are caring for a child in state custody. Participants were asked to respond to four awareness questions after the workshop using a five-point satisfaction scale (1 = not aware, 3 = somewhat aware, 5 = very aware). Average participant scores ranged from 2.71 to 4.71 and the ratings increased from prior to the workshop to after the workshop (see Figure 35). For a full description of Smart Connections Module 2 questions see Appendix C.

Figure 35. Average Participant Awareness Ratings for Smart Connections Module 2



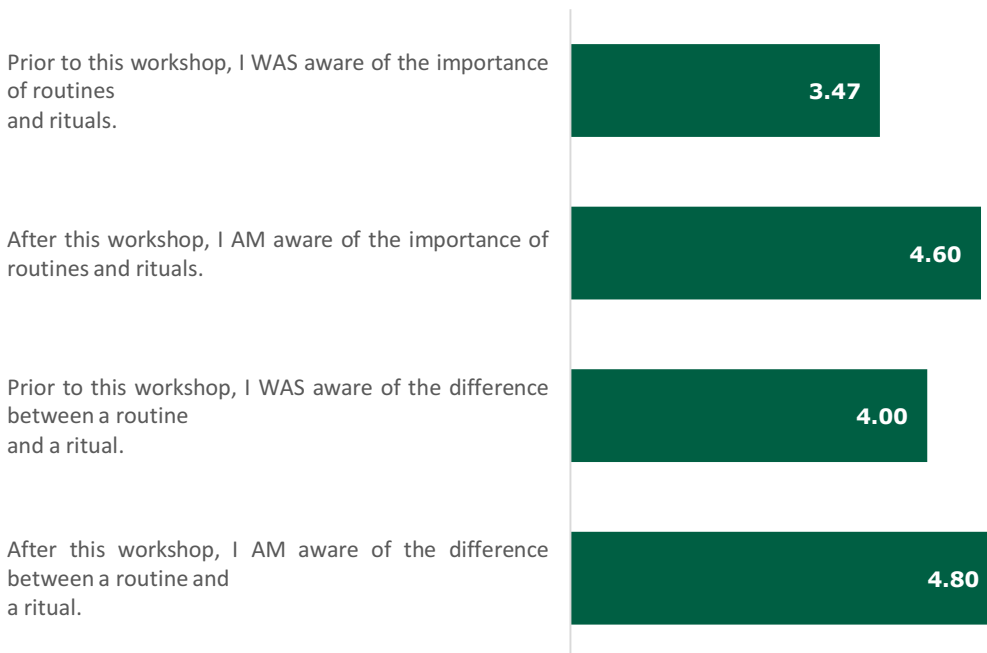
Next, participants were asked to rate how likely they were to practice what they learned in the workshop at home using a five-point satisfaction scale (1 = not likely, 3 = somewhat likely, 5 = very likely). The average participant score was 4.9, which shows that on average most participants were “very likely” to practice what they learned at home.

Lastly, participants were asked to rate their overall satisfaction with the training session using a five-point satisfaction scale (1 = not satisfied, 3 = somewhat satisfied, 5 = very satisfied). The average participant score was 4.9, which shows that on average participants were “very satisfied” with the workshop Module 2.

### Smart Connections Module 3

Smart Connections Module 3 consists of six multiple choice questions. Fifteen participants took Module 3 and 47% of the participants reported caring for a child in state custody. Participants were asked to respond to four awareness questions after the workshop using a five-point satisfaction scale (1 = not aware, 3 = somewhat aware, 5 = very aware). Average participant scores ranged from 3.47 to 4.80 and the ratings increased from prior to the workshop to after the workshop (see Figure 36). For a full description of Smart Connections Module 3 questions see Appendix C.

Figure 36. Average Participant Awareness Ratings for Smart Connections Module 3



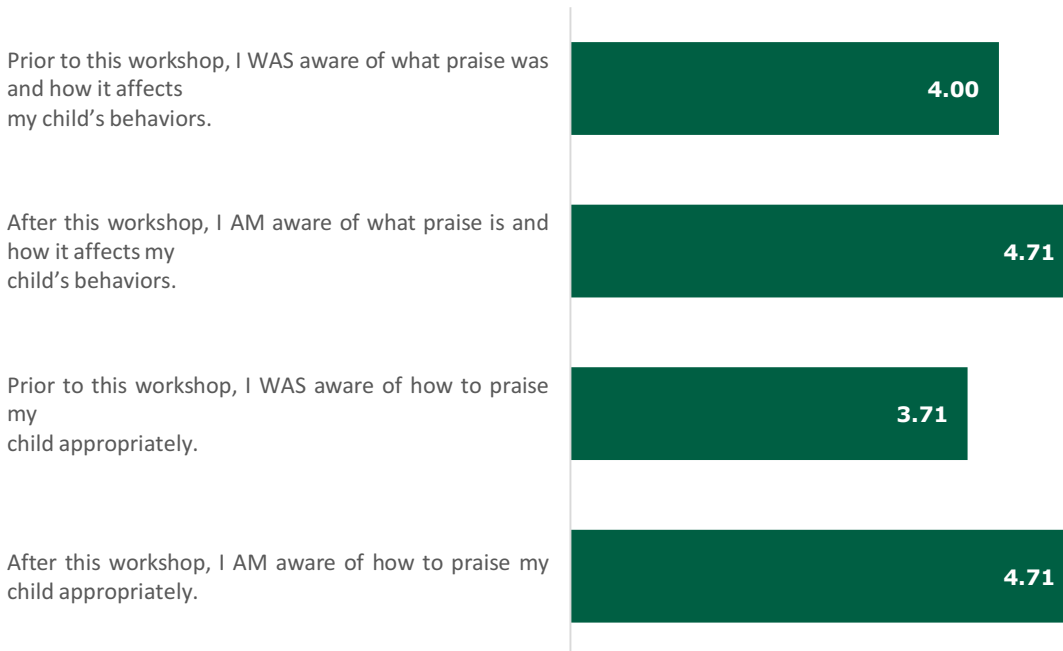
Next, participants were asked to rate how likely they were to practice what they learned in the workshop at home using a five-point satisfaction scale (1 = not likely, 3 = somewhat likely, 5 = very likely). The average participant score was 4.9, which shows that on average most participants were “very likely” to practice what they learned at home.

Lastly, participants were asked to rate their overall satisfaction with the training session using a five-point satisfaction scale (1= not satisfied, 3 = somewhat satisfied, 5 = very satisfied). The average participant score was 4.9, which shows that on average participants were “very satisfied” with the workshop Module 3.

#### *Smart Connections Module 4*

Smart Connections Module 4 consists of six multiple choice questions. Seven participants took Module 4 with 75% of parents reporting they are caring for a child in state custody. Participants were asked to respond to four awareness questions after the workshop using a five-point satisfaction scale (1 = not aware, 3 = somewhat aware, 5 = very aware). Average participant scores ranged from 3.71 to 4.71 and the ratings increased from prior to the workshop to after the workshop (see Figure 37). For a full description of Smart Connections Module 4 questions see Appendix C.

Figure 37. Average Participant Awareness Ratings for Smart Connections Module 4



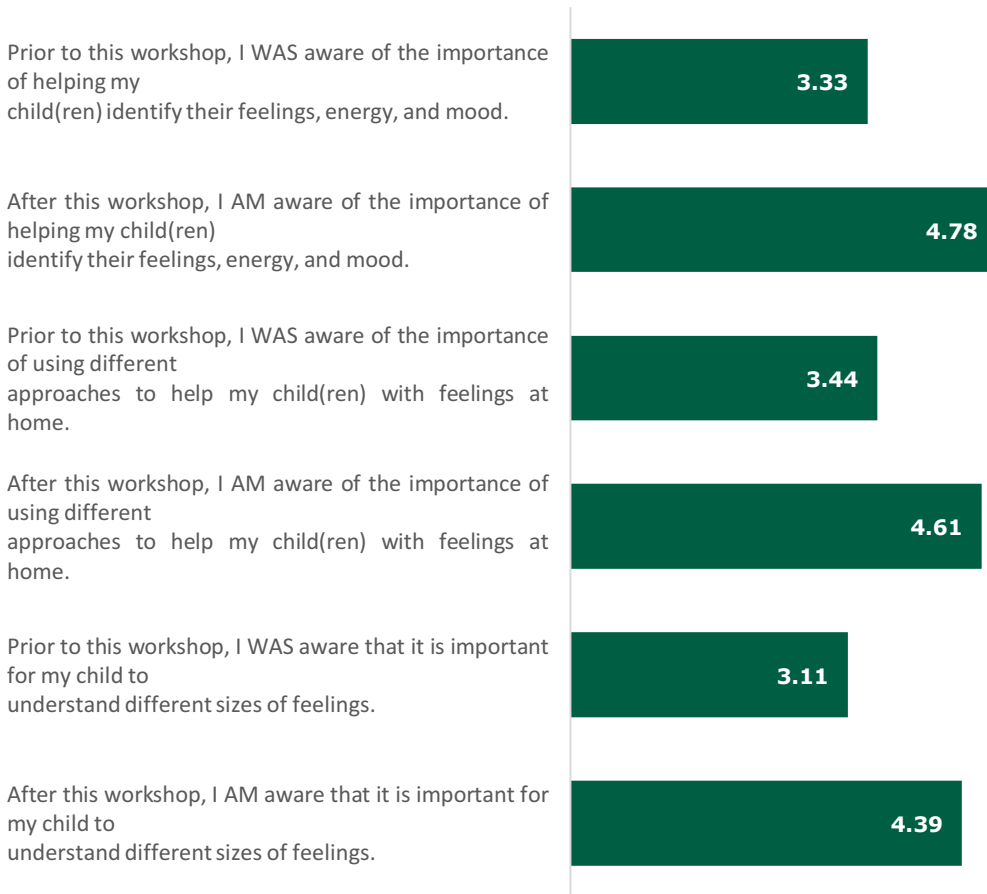
Next, participants were asked to rate how likely they were to practice what they learned in the workshop at home using a five-point satisfaction scale (1 = not likely, 3 = somewhat likely, 5 = very likely). The average participant score was 4.9, which shows that on average most participants were “very likely” to practice what they learned at home.

Lastly, participants were asked to rate their overall satisfaction with the training session using a five-point satisfaction scale (1 = not satisfied, 3 = somewhat satisfied, 5 = very satisfied). All participants selected 5, “very satisfied” with the workshop Module 4.

### Smart Connections Module 5

Smart Connections Module 5 consists of eight multiple choice questions. Eighteen participants took Module 5 and 22.2% of the parents/care givers reported they are caring for a child in state custody. Participants were asked to respond to four awareness questions after the workshop using a five-point satisfaction scale (1 = not aware, 3 = somewhat aware, 5 = very aware). Average participant scores ranged from 3.33 to 4.78 and the ratings increased from prior to the workshop to after the workshop (see Figure 38). For a full description of Smart Connections Module 5 questions see Appendix C.

Figure 38. Average Participant Awareness Ratings for Smart Connections Module 5



Next, participants were asked to rate how likely they were to practice what they learned in the workshop at home using a five-point satisfaction scale (1 = not likely, 3 = somewhat likely, 5 = very likely). The average participant score was 4.6, which shows that on average most participants were “very likely” to practice what they learned at home.

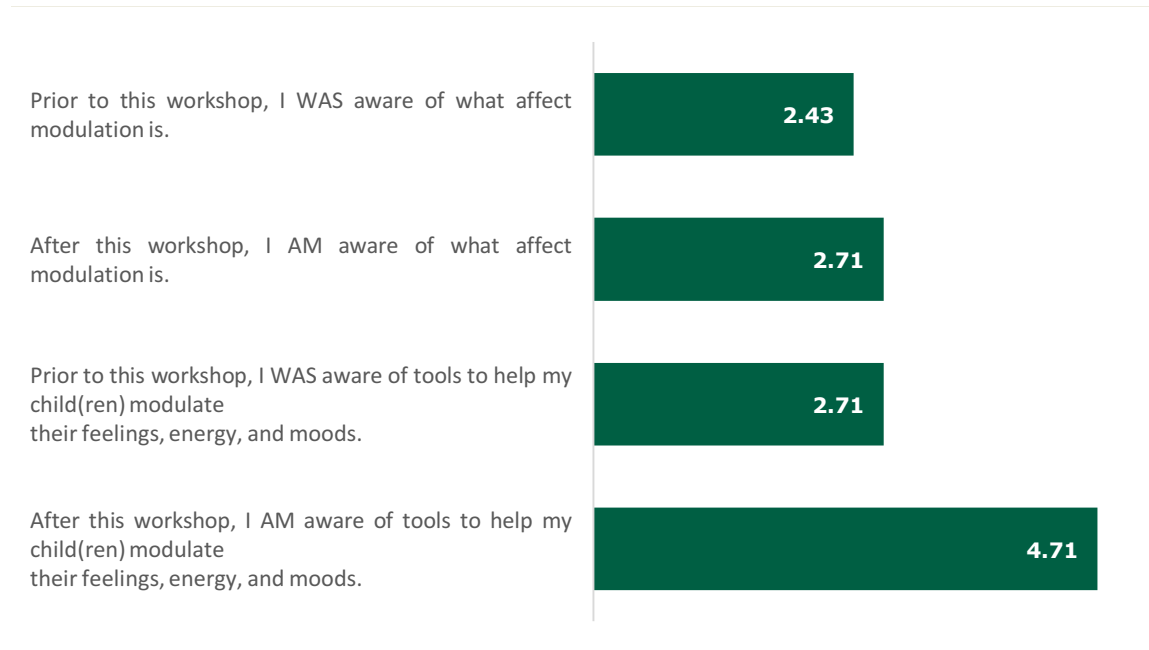
Lastly, participants were asked to rate their overall satisfaction with the training session using a five-point satisfaction scale (1 = not satisfied, 3 = somewhat satisfied, 5 = very satisfied). The average participant score was 4.9, which shows that on average participants were “very satisfied” with the workshop Module 5.

### Smart Connections Module 6

Smart Connections Module 6 consists of six multiple choice questions. Seven participants took Module 6 and 43% of the participants reported they are caring for a child in state custody. Participants were asked to respond to four awareness questions after the workshop using a five-point satisfaction scale (1 = not aware, 3

= somewhat aware, 5 = very aware). Average participant scores ranged from 2.43 to 4.71 and the ratings increased from prior to the workshop to after the workshop (see Figure 38). For a full description of Smart Connections Module 6 questions see Appendix C.

Figure 38. Average participant awareness ratings for Smart Connections Module 6



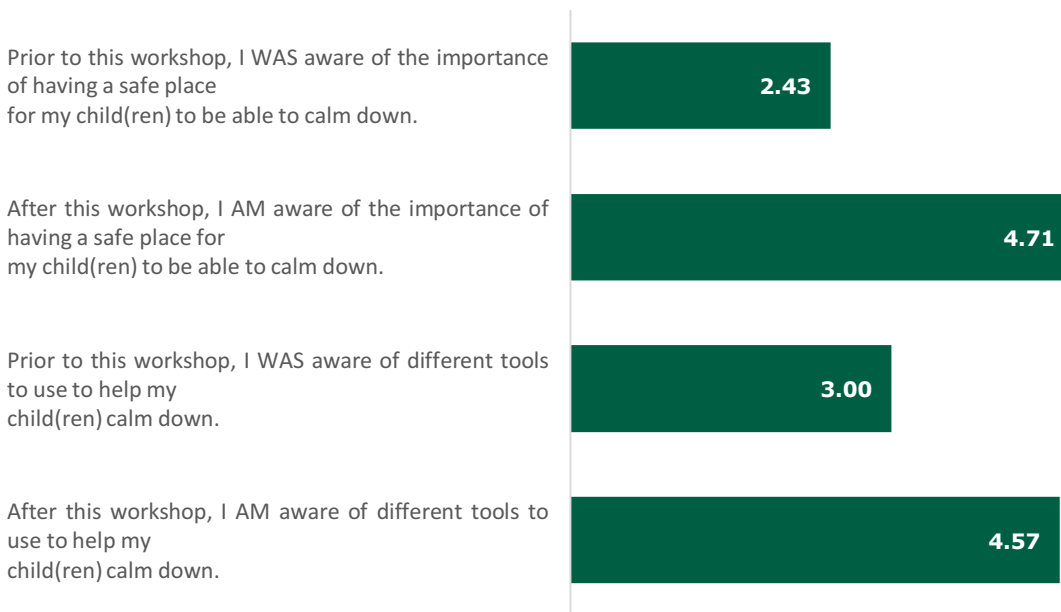
Next, participants were asked to rate how likely they were to practice what they learned in the workshop at home using a five-point satisfaction scale (1 = not likely, 3 = somewhat likely, 5 = very likely). All participants selected 5, and were “very likely” to practice what they learned at home.

Lastly, participants were asked to rate their overall satisfaction with the training session using a five-point satisfaction scale (1 = not satisfied, 3 = somewhat satisfied, 5 = very satisfied). All participants selected 5, “very satisfied” with the workshop Module 6.

### Smart Connections Module 7

Smart Connections Module 7 consists of six multiple choice questions. Seven participants took the survey and 29% of participants reported caring for a child in state custody. Participants were asked to respond to four awareness questions after the workshop using a five-point satisfaction scale (1 = not aware, 3 = somewhat aware, 5 = very aware). Average participant scores ranged from 2.43 to 4.71 and the ratings increased from prior to the workshop to after the workshop (see Figure 39). For a full description of Smart Connections Module 7 questions see Appendix C.

Figure 39. Average Participant Awareness Ratings for Smart Connections Module 7



Next, participants were asked to rate how likely they were to practice what they learned in the workshop at home using a five-point satisfaction scale (1 = not likely, 3 = somewhat likely, 5 = very likely). The average participant score was 4.7, which shows that on average most participants were “very likely” to practice what they learned at home.

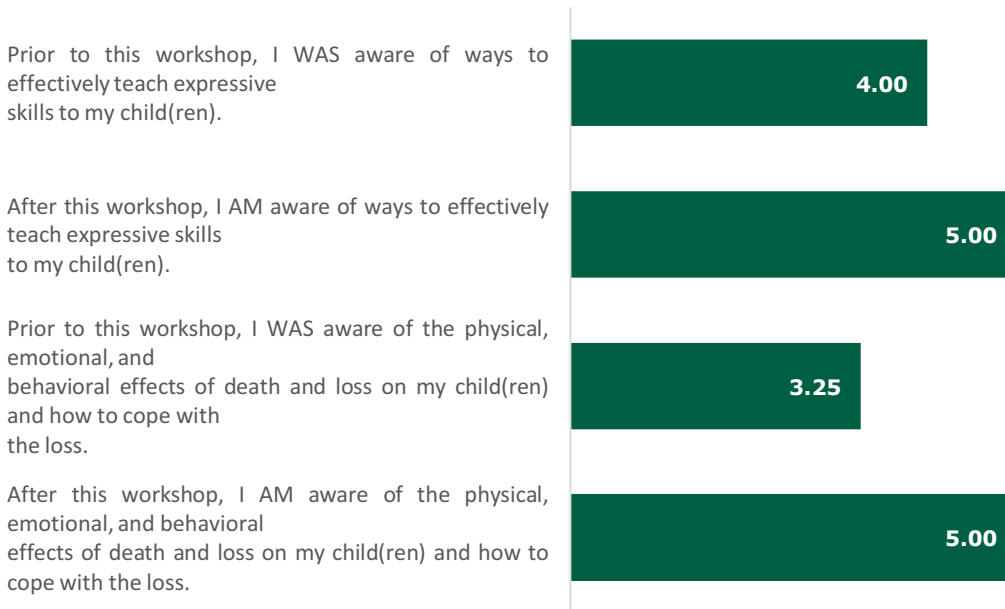
Lastly, participants were asked to rate their overall satisfaction with the training session using a five-point satisfaction scale (1 = not satisfied, 3 = somewhat satisfied, 5 = very satisfied). All participants selected 5, “very satisfied” with the workshop Module 7.

### Smart Connections Module 8

Smart Connections Module 8 consists of six multiple choice questions. Four participants took the survey and one participant reported caring for a child in state custody. Participants were asked to respond to four awareness questions after the workshop using a five-point satisfaction scale (1 = not aware, 3 = somewhat aware, 5 = very aware). Average participant scores ranged from 3.25 – 5.00 and the ratings increased from prior to the workshop to after the workshop (see Figure 39). For a full description of Smart Connections Module 8 questions see Appendix C.



Figure 39. Average Participant Awareness Ratings for Smart Connections Module 8



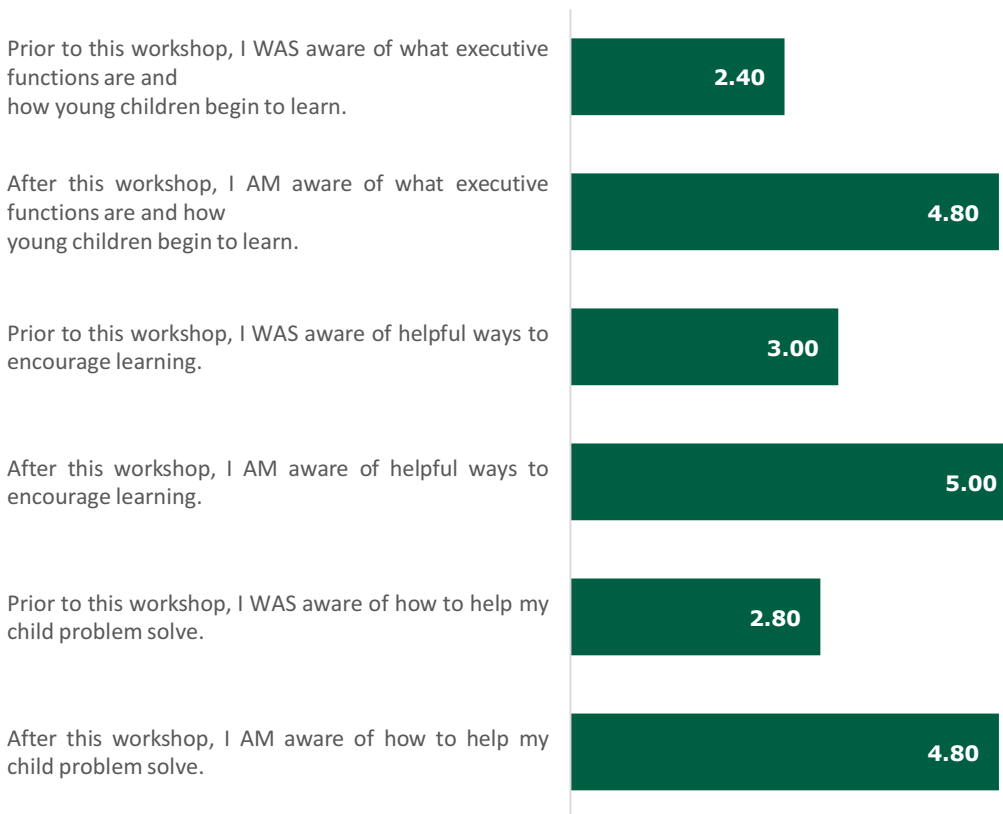
Next, participants were asked to rate how likely they were to practice what they learned in the workshop at home using a five-point satisfaction scale (1 = not likely, 3 = somewhat likely, 5 = very likely). The average participant score was 4.75, which shows that on average most participants were “very likely” to practice what they learned at home.

Lastly, participants were asked to rate their overall satisfaction with the training session using a five-point satisfaction scale (1 = not satisfied, 3 = somewhat satisfied, 5 = very satisfied). All participants selected 5, “very satisfied” with the workshop Module 8.

### Smart Connections Module 9

Smart Connections Module 9 consists of eight multiple choice questions. Five participants took the survey and two participants reported caring for a child in state custody. Participants were asked to respond to four awareness questions after the workshop using a five-point satisfaction scale (1 = not aware, 3 = somewhat aware, 5 = very aware). Average participant scores ranged from 2.40 – 5.00 and the ratings increased from prior to the workshop to after the workshop (see Figure 39). For a full description of Smart Connections Module 9 questions see Appendix C.

Figure 39. Average Participant Awareness Ratings for Smart Connections Module 9



Next, participants were asked to rate how likely they were to practice what they learned in the workshop at home using a five-point satisfaction scale (1 = not likely, 3 = somewhat likely, 5 = very likely). The average participant score was 4.80, which shows that on average most participants were “very likely” to practice what they learned at home.

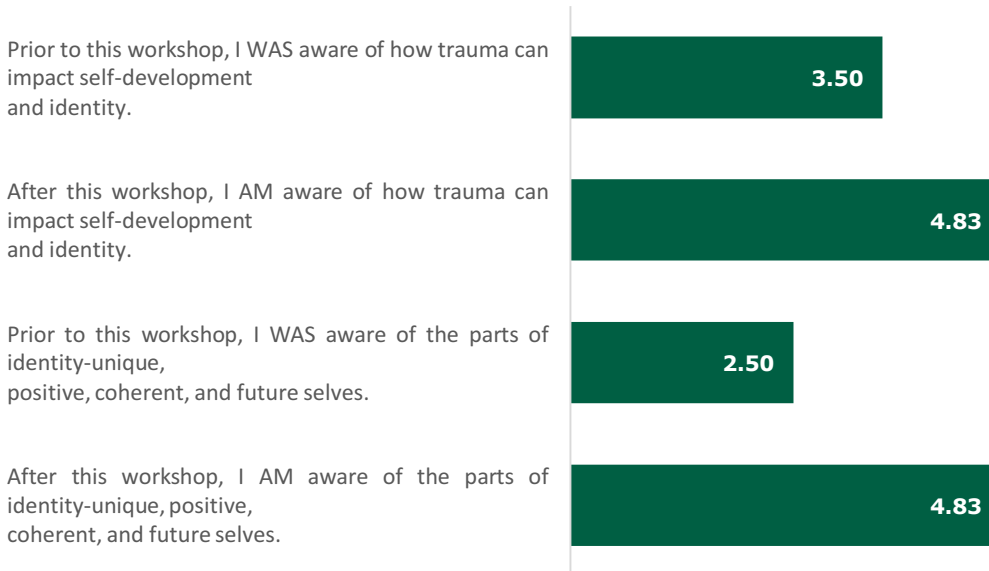
Lastly, participants were asked to rate their overall satisfaction with the training session using a five-point satisfaction scale (1 = not satisfied, 3 = somewhat satisfied, 5 = very satisfied). All participants selected 5, “very satisfied” with the workshop Module 9.

### Smart Connections Module 10

Smart Connections Module 10 consists of six multiple choice questions. Five participants took the survey and one participant reported caring for a child in state custody. Participants were asked to respond to four awareness questions after the workshop using a five-point satisfaction scale (1 = not aware, 3 = somewhat aware, 5 = very aware). Average participant scores ranged from 2.50 – 4.83 and the ratings increased from prior to the workshop to after the workshop (see Figure

39). For a full description of Smart Connections Module 10 questions see Appendix C.

Figure 39. Average participant awareness ratings for Smart Connections Module 10



Next, participants were asked to rate how likely they were to practice what they learned in the workshop at home using a five-point satisfaction scale (1 = not likely, 3 = somewhat likely, 5 = very likely). All participants selected 5, and were “very likely” to practice what they learned at home.

Lastly, participants were asked to rate their overall satisfaction with the training session using a five-point satisfaction scale (1 = not satisfied, 3 = somewhat satisfied, 5 = very satisfied). All participants selected 5, “very satisfied” with the workshop Module 10.