

Table 1

Overview of General Training Characteristics and Fidelity

Variable	Intervention Trainings (<i>n</i> = 7)	Control Trainings (<i>n</i> = 8)	Significant Difference Between Intervention and Control?
Training Length ($M_{\text{hours}} \pm \text{SD}$; range)	3.57 \pm 0.20; 3.42-3.93	3.27 \pm 0.28; 3.00-3.75	Yes; $t(13) = 2.40, p < .05$
Total Break Time ($M_{\text{hours}} \pm \text{SD}$)	0.52 \pm 0.13	0.57 \pm 0.12	No; $t(13) = -.780, p = .449$
Group Size ($M \pm \text{SD}$) ¹	11.00 \pm 2.94	13.13 \pm 6.33	No; $t(13) = -.811, p = .432$
Fidelity			n/a
<i>M</i> %	98.77	2.16	
<i>M</i> \pm SD	137.29 \pm 2.21	3.00 \pm 0.00	
Range (max. 139)	133-139 ²	3-3 ³	

Notes:

¹ According to the full group size of the training (i.e., research participants + non-research training participants), rather than the number of participants attending the training (i.e., solely research participants).

² There were only two instances of omission of training content. Specifically, one instance was an omission of the fact that parents do not generally overestimate their children's pain, and the other instance was an omission of review of a sample script for deep breathing. All other deviations from fidelity were related to time constraints and a need to adapt the case study activities. For example, in some instances, the case studies were discussed as a larger group rather than in smaller groups, or the final case study activity was omitted from the training.

³ As expected, fidelity for the control training against the pain training checklist was very low. No control trainings included any information relevant to pain. All instances of similarity in training content were related to the provision of an introduction of the speaker, an overview of the training, and an icebreaker activity at the beginning of the training.

Table 2

Demographic Data of Participating Organizations, n (%)

Variable	Intervention (<i>n</i> = 7)	Control (<i>n</i> = 7)	Total (<i>n</i> = 14)
Type of Respite Programming ¹			
In Home/In the Community	2 (28.60)	4 (57.10)	6 (42.86)
Week Long/Weekend	7 (100.00)	6 (85.70)	13 (92.86)
Day Long (e.g., P.D. Days)	4 (57.10)	5 (71.40)	9 (64.29)
Summer Day Camps	5 (71.40)	4 (57.10)	9 (64.29)
Other (e.g., seasonal programming; after school programming)	3 (42.90)	2 (28.60)	5 (35.71)
Type of Disability/Needs			
Intellectual/Developmental Disability	7 (100.00)	7 (100.00)	14 (100.00)
Medically Fragile/Technologically Dependent	3 (42.90)	6 (85.70)	9 (64.29)
Physical Disability	3 (42.90)	5 (71.40)	8 (57.14)
Co-morbid Conditions	5 (71.40)	7 (100.00)	12 (85.71)
Brain Injury	3 (42.90)	4 (57.10)	7 (50.00)
Epilepsy/Seizures	5 (71.40)	6 (85.70)	11 (78.57)
Other (e.g., mental health)	1 (14.30)	1 (14.30)	2 (14.29)
Type of Supports Provided			
Social Skills/Communication	7 (100.00)	7 (100.00)	14 (100.00)
Personal Care	7 (100.00)	7 (100.00)	14 (100.00)
Mealtime Assistance	7 (100.00)	7 (100.00)	14 (100.00)
Behavior Management	6 (85.70)	6 (85.70)	12 (85.71)
Mobility	3 (42.90)	6 (85.70)	9 (64.29)
Medical-Related Care	5 (71.40)	4 (57.10)	9 (64.29)
Other (i.e., recreational supports)	1 (14.30)	0 (0.00)	1 (7.14)
Organization Size ²			
Small	0 (0.00)	2 (28.60)	2 (14.29)

Medium	6 (85.70)	4 (57.10)	10 (71.42)
Large	1 (14.30)	1 (14.30)	2 (14.29)

Notes:

¹Staff to child ratios varied widely from 2:1 to 3:10 across respite programs and between organizations.

²Organizations were asked to indicate the size of their organization but were not given definitions for these categories. As such, these are subjective categories.

Table 3

Demographic Characteristics of Participants in Intervention and Control Groups

Variable	Total (<i>n</i> = 156-157)	Intervention (<i>n</i> = 65 - 66)	Control (<i>n</i> = 89-91)	Significant Difference Between Intervention and Control?
Female, <i>n</i> (%)	139 (88.50)	58 (87.88)	81 (89.01)	No; $\chi^2(1) = .048, p = .826$
Age, ($M_{\text{years}} \pm SD$)	30.67 years \pm 8.62	29.78 \pm 7.43	31.30 years \pm 9.37	No; $t(154) = 1.08, p = .282$
Working w/ children I/DD, ($M_{\text{years}} \pm SD$)	5.82 years \pm 5.15	5.30 years \pm 4.68	6.21 years \pm 5.47	No; $t(153) = 1.08, p = .282$
Direct care involvement ¹ , ($M \pm SD$)	8.85 \pm 1.50	8.95 \pm 1.29	8.77 \pm 1.64	No; $t(153.169) = -.799, p = .426$
Frequency of interaction, <i>n</i> (%)				No; $p = .570$, Fischer's Exact Test
Occasionally	5 (3.18)	3 (4.55)	2 (2.19)	
Often	18 (11.46)	6 (9.09)	12 (13.19)	
Very Often	134 (85.35)	57 (86.36)	77 (84.62)	
Pain Training ²				No; $\chi^2(1) = .058, p = .809$
Yes	34 (21.79%)	15 (22.73)	19 (21.11)	
No	122 (78.21%)	51 (77.27)	71 (78.89)	

Notes:

¹Participants had to select one number on an 11-point scale (0-10). Lower numbers indicated less direct involvement.

²Of those participants who endorsed previous pain-related training, 23 (67.64%) indicated that their training was provided through formal post-secondary/health related training programs, 6 (17.65%) reported having received in house training with a nurse or health care professional, 4 (11.76) described having received training about pain in a non-specific pain training such as first aid and CPR courses, and 1 (2.94%) participant endorsed previous pain training but did not clarify who or where the training was provided. It was unclear whether these programs included training specific to pain in children with I/DD.

Table 4

Means and Standard Deviations for ITT Mixed ANOVA Analyses for all Outcome Measures at all Time Points

		<u>Intervention</u>	<u>Control</u>	<u>Significant Between Group Baseline Difference at Pre?</u>	<u>Total</u>
		<i>M (SD)</i>	<i>M (SD)</i>		<i>M (SD)</i>
Pain Knowledge	Pre	27.38-27.89 (4.57-4.92)	26.84-27.40 (4.63-4.98)	No, $t(2054) = .688, p = .492$	27.06-27.57 (4.63-4.95)
	Post	33.08-33.64 (3.27-4.74)	25.60-26.01 (7.52-7.72)		28.81-29.11 (7.23-7.55)
	Follow-Up	31.74-32.22 (4.41-5.09)	25.63-26.03 (6.81-7.36)		28.18-28.43 (6.78-7.01)
Assessment Feasibility	Pre	7.66-7.72 (1.70-1.72)	7.16-7.23 (1.92-1.95)	No, $t(19487) = 1.693, p = .090$	7.37-7.42 (1.84-1.87)
	Post	8.25-8.31 (1.56-1.58)	7.14-7.16 (1.95-1.95)		7.61-7.64 (1.88-1.88)
	Follow-Up	7.25-7.38 (1.52-1.65)	6.71-7.10 (1.55-1.71)		6.93-7.22 (1.56-1.70)
Assessment Confidence	Pre	5.95-5.98 (1.53-1.53)	5.90-6.01 (1.63-1.68)	No, $t(1573) = .069, p = .945$	5.93-5.99 (1.58-1.61)
	Post	7.65-7.72 (1.38-1.46)	6.29-6.30 (1.72-1.72)		6.86-6.89 (1.73-1.75)
	Follow-Up	6.98-7.17 (1.31-1.52)	5.90-6.20 (1.56-1.73)		6.41-6.52 (1.57-1.76)
Assessment Skill	Pre	5.71-5.72 (1.66-1.66)	5.60-5.71 (1.65-1.71)	No, $t(2227) = .250, p = .802$	5.65-5.71 (1.65-1.68)
	Post	7.45-7.51 (1.37-1.48)	6.15-6.18 (1.83-1.85)		6.69-6.73 (1.78-1.81)
	Follow-Up	6.97-7.20 (1.35-1.49)	5.92-6.03 (1.65-1.76)		6.38-6.42 (1.62-1.73)
Management Feasibility	Pre	7.32-7.51 (1.79-1.92)	7.20-7.42 (1.84-2.00)	No, $t(147) = .380, p = .704$	7.31-7.43 (1.86-1.93)
	Post	8.18-8.32 (1.48-1.64)	7.23-7.39 (1.84-1.89)		7.62-7.76 (1.77-1.84)
	Follow-Up	7.52-7.72 (1.50-1.67)	6.83-7.22 (1.57-1.82)		7.14-7.40 (1.59-1.77)
Management Confidence	Pre	5.89-6.08 (1.59-1.71)	6.01-6.13 (1.60-1.85)	No, $t(296) = .268, p = .789$	6.01-6.10 (1.60-1.75)
	Post	7.57-7.68 (1.29-1.41)	6.34-6.37 (1.72-1.75)		6.86-6.89 (1.69-1.71)
	Follow-Up	7.31-7.37 (1.28-1.40)	6.42-6.61 (1.54-1.60)		6.79-6.90 (1.52-1.56)
Management Skill	Pre	5.72-5.85 (1.68-1.72)	5.86-5.91 (1.60-1.78)	No, $t(7420) = .384, p = .701$	5.80-5.89 (1.63-1.75)
	Post	7.52-7.63 (1.32-1.45)	6.18-6.26 (1.76-1.80)		6.78-6.80 (1.74-1.77)
	Follow-Up	7.23-7.37 (1.29-1.40)	6.28-6.40 (1.54-1.66)		6.68-6.77 (1.52-1.61)

Note: As pooled estimates of standard deviation values are not available on SPSS, ranges of the means and standard deviations from the five final iterations of the imputation data sets represent descriptive data in this table. Baseline comparisons used data which pooled the five final iterations of data as available through SPSS.

Table 5

F-values, df, p-values, and Effect Sizes for Interaction Effects of Time Period by Group for QUPID-CR Scores and Feasibility-Confidence-Skill Ratings

		F_{range}	df_{range}	p_{range}	$Partial \eta^2_{range}$
ITT Analyses	QUPID-CR	29.33-40.97	1.51-1.75, 233.73-271.60	<.001	.16-.21
	Assessment Feasibility	2.56-9.71	1.89-2.00, 292.45-310.00	<.001-.082	.02-.06
	Assessment Confidence	14.00-19.32	1.85-2.00, 287.05-310.00	<.001	.08-.11
	Assessment Skill	13.52-18.27	1.74-2.00, 270.00-310.00	<.001	.08-.11
	Management Feasibility	3.01-6.42	1.92-2.00, 296.78-310.00	<.01-0.53	.02-.04
	Management Confidence	14.46-20.38	2.00, 310.00	<.001	.09-.12
	Management Skill	17.84-24.18	1.88-2.00, 291.40-310.00	<.001	.10-.15
		F	df	p	$Partial \eta^2$
PP Analyses	QUPID-CR	37.94	2, 128	<.001	.37
	Assessment Feasibility	0.96	2, 186	.384	.01
	Assessment Confidence	12.00	2, 186	<.001	.11
	Assessment Skill	13.68	1.86, 172.85	<.001	.13
	Management Feasibility	2.59	2, 162	.078	.03
	Management Confidence	9.74	2, 162	<.001	.11
	Management Skill	13.22	2, 162	<.001	.14

Note. Partial η^2 magnitudes: 0.01 = small, 0.06 = medium, 0.14 = large. Follow up analyses for QUPID-CR results are described in the text and figures; follow up analyses for the feasibility-confidence-skill ratings are presented in Table 6.

Table 6

Welch's F Values, p-values, and Effect Sizes for Follow-Up Analyses of Feasibility-Confidence-Skill Ratings Comparing Participants Who Received Pain vs. Control Training

	<u>Post</u>			<u>Follow-Up</u>		
	Welch's <i>F</i>	<i>p</i>	ω^2	Welch's <i>F</i>	<i>p</i>	ω^2
Assessment Feasibility	94.37	<.001	0.08	13.16	<.001	0.01
Assessment Confidence	183.47	<.001	0.15	842.76	<.001	0.10
Assessment Skill	156.68	<.001	0.13	854.92	<.001	0.11
Management Feasibility	81.58	<.001	0.07	817.78	<.001	0.04
Management Confidence	167.34	<.001	0.14	850.08	<.001	0.08
Management Skill	182.34	<.001	0.15	854.81	<.001	0.09

Note. ω^2 effect sizes should be interpreted as follows: 0.01 = small effect, 0.06 = medium effect, 0.14 = large effects (Field, 2009; Kirk, 1996)

Table 7

Means, Standard Deviations, Critical Values, p-values, and Effect Sizes for Follow-Up Analyses of Feasibility-Confidence-Skill Ratings Over the Three Time Points for Participants who Received Pain Training.

	<u>Pre to Post</u>			<u>Post to Follow-Up</u>			<u>Pre to Follow-Up</u>		
	<i>t</i>	<i>p</i>	<i>Cohen's d</i>	<i>t</i>	<i>p</i>	<i>Cohen's d</i>	<i>t</i>	<i>p</i>	<i>Cohen's d</i>
Assessment Feasibility	2.77	<.01	0.34	5.38	<.001	0.67	1.77	.08	0.22
Assessment Confidence	9.38	<.001	1.16	3.22	<.01	0.40	4.87	<.001	0.60
Assessment Skill	9.87	<.001	1.22	2.24	<.05	0.28	5.69	<.001	0.71
Management Feasibility	3.15	<.001	0.48	3.15	<.01	0.39	0.92	.36	0.11
Management Confidence	8.20	<.001	1.02	1.68	.09	0.21	6.79	<.001	0.84
Management Skill	8.92	<.001	1.11	1.82	.06	0.23	7.41	<.001	0.92

Note: Cohen's *d* magnitudes: 0.20 = small, 0.50 = medium, 0.80 = large (Cohen, 1988)