

Family HEART Camp

*Summer Camp
for All Ages!*

Family HEART Camp Effectiveness Study Report

June 29 – October 3, 2013

2013 FHC Effectiveness Study

Executive Summary

The results of the 2013 Family HEART Camp Effectiveness Study, conducted with a total of forty-one participants from three camp locations, indicate that attending Family HEART Camp has a measurable and statistically significant positive impact on participants in all three areas of the study:

- The level of satisfaction of all of the **needs** measured in this study increased while at camp. With the exception of the measured need *dependability*, this improvement continued up to eight weeks after the end of camp.
- The frequency of observation in the **respondent** of all of the **behaviors** measured in this study increased while at camp. With the exception of the behaviors *Acknowledge Tension, Express Dissent, Create Recognition Opportunities and Make Agreements*, this impact continues up to eight weeks after the end of camp.
- The frequency of observation in other **family members** of all of the **behaviors** measured in this study increased while at camp. With the exception of the behaviors *Ask Clarifying Questions, Express Dissent, Create Recognition Opportunities, Make Requests and Make Agreements*, this impact continues up to eight weeks after the end of camp.

2013 FHC Effectiveness Study Report

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Overview

- Longitudinal study conducted with participants from three Family HEART Camps during the summer of 2013.
- Three surveys administered:
 - “Pre” First day of camp (paper)
 - “Post” Last day of camp (paper)
 - “Follow-up” Six – eight weeks after camp (online)

Camp Location	Pre Date	Post Date	Pre/Post Count	Follow-Up Date	Follow-Up Count
West Virginia	June 29	July 6	14	Aug 20 – Sep 12	10
Colorado	July 13	July 20	13	Sep 22 – Oct 2	10
Wisconsin	August 4	August 11	14	Sep 22 – Oct 3	14
Overall	N/A	N/A	41	N/A	34

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Participant Demographics

- 15 potential study participants were randomly selected at each participating camp.
 - Non-staff attendees
 - At least 13 years old
- Participant demographics shown below are drawn from FHC registration records and the study's Disclosure and Consent Form.

Camp Location	Number of Participants	Median Age	Gender M/F	Prior NVC	Prior NVC family camp
West Virginia	14	42	8/6	6	7
Colorado	13	48	8/5	5	2
Wisconsin	14	38	5/9	7	4
Overall	41	44	21/20	18	13

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Survey Instrument Overview

- Based on survey questions created by Jane Connor, Martha Lasley and Dian Killian as part of a training program and research project conducted by the Center for Collaborative Communication and Merck, Inc. Adapted with permission.
- Administered in two parts:
 - Part I: Needs
 - Part II: Behaviors (Self and Family)

Participant #: _____
Date: _____
Pre-Camp Post-Camp

Family HEART Camp
Family HEART Camp Effectiveness Study

Purpose: To study the effect of participation at Family HEART Camp (FHC) on the relationships among family members.

Methodology: This study consists of one instrument (survey) to be administered to study participants at the beginning and end of camp (on paper) and four to six weeks after camp (online).

Instrument: The survey instrument consists of two parts. Part I measures the quality of family interactions based on how well, in the opinion of the participant, twelve specific needs are met. Part II measures the frequency with which twelve behaviors are observed in the opinion of the participant, on his or her part and by other family members. You will also have an opportunity for an open response at the end.

Acknowledgement: The original questions on which this survey instrument is based were created by Jane Connor, Martha Lasley and Dian Killian as part of a training program and research project conducted by the Center for Collaborative Communication and Merck, Inc.

Part I

When you think of your interactions with members of your family, how well are the following needs met for you by actions engaged in by you or others in the family? Circle the rating for each need from the scale appearing next to the name of the need. A rating of 1 indicates scarcity, the need not being met at all; a rating of 5 indicates abundance, the need being met fully.

Need	Rating					Need	Rating				
1. Appreciation	1	2	3	4	5	2. Authenticity	1	2	3	4	5
3. Choice	1	2	3	4	5	4. Clarity	1	2	3	4	5
5. Cooperation	1	2	3	4	5	6. Dependability	1	2	3	4	5
7. Harmony	1	2	3	4	5	8. Inclusion	1	2	3	4	5
9. Openness	1	2	3	4	5	10. Respect	1	2	3	4	5
11. Support	1	2	3	4	5	12. Trust	1	2	3	4	5

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Survey Instrument Part I: Needs

“When you think of your interactions with members of your family, how well are the following needs met for you by actions engaged in by you or others in the family? Circle the rating for each need from the scale appearing next to the name of the need. A rating of 1 indicates scarcity, the need not being met at all; a rating of 5 indicates abundance, the need being met fully.”

Need	Rating					Need	Rating				
Appreciation	1	2	3	4	5	Authenticity	1	2	3	4	5
Choice	1	2	3	4	5	Clarity	1	2	3	4	5
Cooperation	1	2	3	4	5	Dependability	1	2	3	4	5
Harmony	1	2	3	4	5	Inclusion	1	2	3	4	5
Openness	1	2	3	4	5	Respect	1	2	3	4	5
Support	1	2	3	4	5	Trust	1	2	3	4	5

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Survey Instrument Part II: Behaviors

“Circle the rating that corresponds to how frequently you demonstrate the following behaviors (Self) and how frequently you observe the other members of your family demonstrating the same behaviors (Family). A rating of 1 indicates the behavior is never demonstrated; a rating of 5 indicates the behavior is always demonstrated.”

Behavior	Rating - Self					Rating - Family				
Consider the impact of one's actions on the needs of other family members.	1	2	3	4	5	1	2	3	4	5
Ask clarifying questions when hearing a statement that seems confusing or irrelevant.	1	2	3	4	5	1	2	3	4	5
Acknowledge and address tension when relationships are strained.	1	2	3	4	5	1	2	3	4	5
Express dissenting opinions when they might benefit the family.	1	2	3	4	5	1	2	3	4	5
Offer appreciation that focuses on behavior you want to continue.	1	2	3	4	5	1	2	3	4	5
Create opportunities for everyone in the family to receive recognition and appreciation.	1	2	3	4	5	1	2	3	4	5
Ask someone to repeat what they heard you say if you're uncertain you were understood.	1	2	3	4	5	1	2	3	4	5
Make requests that are specific, doable and timely.	1	2	3	4	5	1	2	3	4	5
Make, keep and break agreements with care.	1	2	3	4	5	1	2	3	4	5
Ask for observable information when you hear someone generalize or state a judgment.	1	2	3	4	5	1	2	3	4	5
Find out what matters to someone who is upset before responding or advising.	1	2	3	4	5	1	2	3	4	5
Give feedback that is free of criticism, judgment or blame.	1	2	3	4	5	1	2	3	4	5

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Data Collection

- The Pre-Camp and Post-Camp surveys were administered using paper and pen on the first and last days of camp, respectively.
- The Follow-Up survey was administered using a Google form embedded in the Family HEART Camp website. All responses were automatically entered in a Google Drive spreadsheet.
- All survey responses were entered into a Microsoft Excel workbook, with one worksheet for each of the three surveys.
- The resulting datasets contain 41 rows (respondents) with 11 columns of demographic information and 36 columns of survey responses for the twelve needs, twelve behaviors (self) and twelve behaviors (family) measured in the study.
- Missing responses are indicated by “NR.”

2013 FHC Effectiveness Study Data Collection (Continued)

Survey #	Date	Camp	Participant Number	Participant Code	Gender	Age	Prior NVC	Prior Family Camp	Full Week	With Family	Needs [Appreciation]	Needs [Authenticity]	Needs [Choice]	Needs [Clarity]	Needs [Cooperation]	Needs [Dependability]	Needs [Harmony]	Needs [Inclusion]	Needs [Openness]	Needs [Respect]	Needs [Support]	Needs
1	7/13/2013	CO	1	CO-01	Male	49	No	No	Yes	Yes	4	4	3	3	3	3	2	4	3	3	4	
2	7/13/2013	CO	2	CO-02	Male	17	No	No	Yes	Yes	4	4	3	3	3	4	2	5	2	5	5	
3	7/13/2013	CO	3	CO-03	Female	66	No	No	Yes	Yes	4	3	4	3	4	3	3	3	3	4	4	
4	7/13/2013	CO	4	CO-04	Female	37	No	No	Yes	Yes	3	3	4	3	3	5	3	4	3	4	4	
5	7/13/2013	CO	5	CO-05	Female	48	No	No	Yes	Yes	1	4	2	3	3	1	2	1	1	4	1	
6	7/13/2013	CO	7	CO-07	Male	46	Yes	Yes	Yes	Yes	3	4	3	4	4	2	4	4	4	3	4	
7	7/13/2013	CO	8	CO-08	Male	52	Yes	No	Yes	Yes	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
8	7/13/2013	CO	9	CO-09	Female	47	Yes	Yes	Yes	Yes	4	3	4	3	2	4	2	3	3	2	3	
9	7/13/2013	CO	10	CO-10	Male	65	Yes	No	Yes	Yes	4	4	5	3	4	5	4	5	4	4	4	
10	7/13/2013	CO	11	CO-11	Male	42	Yes	No	Yes	Yes	4	5	4	4	3	4	4	4	3	3	4	
11	7/13/2013	CO	12	CO-12	Male	67	No	No	Yes	Yes	3	3	3	3	3	3	3	3	3	3	3	
12	7/13/2013	CO	13	CO-13	Female	35	No	No	Yes	Yes	5	4	4	3	4	4	4	5	4	4	4	
13	7/13/2013	CO	14	CO-14	Male	64	No	No	Yes	Yes	3	4	2	3	4	4	3	4	4	3	4	
14	8/4/2013	WI	1	WI-01	Female	28	Yes	No	Yes	Yes	2	4	3	4	3	4	2	3	3	4	2	
15	8/4/2013	WI	2	WI-02	Female	61	Yes	No	Yes	No	3	1	NR	1	2	3	1	1	1	3	2	
16	8/4/2013	WI	3	WI-03	Female	44	No	No	Yes	Yes	5	3	4	4	4	4	3	3	3	3	4	
17	8/4/2013	WI	4	WI-04	Male	39	Yes	Yes	Yes	Yes	3	4	4	4	3	4	4	4	5	5	5	
18	8/4/2013	WI	6	WI-06	Male	38	No	No	Yes	Yes	3	4	3	3	3	5	2	4	4	4	3	
19	8/4/2013	WI	7	WI-07	Male	31	Yes	No	Yes	Yes	2	3	3	2	3	5	2	3	3	3	3	
20	8/4/2013	WI	8	WI-08	Female	13	No	Yes	Yes	Yes	5	4	2	5	2	3	4	5	2	4	4	
21	8/4/2013	WI	9	WI-09	Female	32	No	No	Yes	Yes	3	4	2	NR	2	2	2	3	3	2	3	
22	8/4/2013	WI	10	WI-10	Female	51	Yes	No	Yes	Yes	2	3	2	2	2	3	2	3	2	2	2	
23	8/4/2013	WI	11	WI-11	Male	60	Yes	No	Yes	No	3	4	2	4	2	3	2	2	3	3	4	
24	8/5/2013	WI	12	WI-12	Female	37	Yes	No	Yes	Yes	3	4	2	3	3	4	3	3	3	3	3	
25	8/4/2013	WI	13	WI-13	Female	53	No	Yes	Yes	Yes	4	5	3	5	4	3	3	4	4	4	4	
26	8/4/2013	WI	14	WI-14	Male	13	No	No	Yes	Yes	4	3	4	3	3	4	3	3	4	2	3	
27	8/4/2013	WI	15	WI-15	Female	16	No	Yes	Yes	Yes	4	5	5	3	5	5	4	5	5	5	5	
28	6/29/2013	WV	1	WV-01	Male	44	Yes	No	Yes	Yes	4	3	4	3	5	3	4	5	4	5	5	
29	6/29/2013	WV	2	WV-02	Female	13	No	Yes	Yes	Yes	5	4	4	5	3	4	3	5	3	5	4	
30	6/29/2013	WV	3	WV-03	Female	17	Yes	Yes	Yes	Yes	5	5	5	3	4	4	4	4	5	5	5	

Example: Survey #1 Results (Pre-Camp)

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Data Preparation

- In preparation for conducting Analysis of Variance (ANOVA) data analysis, the three survey-specific datasets were combined into one master set.
- This dataset contains 41 rows (respondents), with 108 columns showing the three observations (pre, post, follow-up) grouped by variable (12 needs, 12 behaviors (self) and 12 behaviors (family)).

Clipboard Font Alignment Number Formatting Styles																			
AL39 =INDEX("Survey #3"!\$L\$2:\$W\$42,\$A39,AL\$1)																			
	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
2	Participant	Appreciation			Authenticity			Choice			Clarity			Cooperation			Dependability		
3	Code	Pre	Post	FollowUp	Pre	Post	FollowUp	Pre	Post	FollowUp	Pre	Post	FollowUp	Pre	Post	FollowUp	Pre	Post	FollowUp
4	CO-01	4	5	4	4	4	3	3	4	4	3	4	4	3	3	3	3	4	4
5	CO-02	4	4	3	4	5	3	3	4	3	3	4	3	3	4	3	4	4	4
6	CO-03	4	5	4	3	4	4	4	5	4	3	5	4	4	5	4	3	4	4
7	CO-04	3	5	5	3	4	5	4	5	5	3	4	5	3	3	5	5	4	5
8	CO-05	1	4	NR	4	3	NR	2	2	NR	3	4	NR	3	4	NR	1	2	NR
9	CO-07	3	4	3	4	4	4	3	3	4	4	3	3	4	3	3	2	3	4
10	CO-08	NR	5	4	NR	4	4	NR	5	4	NR	4	4	NR	4	4	NR	5	4
11	CO-09	4	5	4	3	4	4	4	4	4	3	3	3	2	3	3	4	3	3
12	CO-10	4	5	4	4	3	4	5	5	5	3	3	4	4	5	5	5	4	5
13	CO-11	4	5	NR	5	5	NR	4	4	NR	4	5	NR	3	5	NR	4	5	NR
14	CO-12	3	2	3	3	3	3	3	3	3	3	3	3	3	4	3	3	4	3

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Data Analysis Methodology

- The preliminary analysis consists of Repeated-Measures Analysis of Variance, or ANOVA.
- ANOVA compares two or more sets of **observations** of the same **variables**, taken on the same subjects at different times, to determine if there is a measurable and **statistically significant** difference among the means of these sets of observations.

Appreciation		
Pre	Post	FollowUp
4	5	4
4	4	3
4	5	4
3	5	5
1	4	NR
3	4	3
NR	5	4
4	5	4
4	5	4
4	5	NR
3	2	3
5	4	NR
3	3	3
2	3	3
3	3	4
5	5	4
3	4	4
3	5	4
2	4	2
5	5	2
3	4	4



Appreciation		
Pre	Post	FollowUp
4	5	4
4	4	3
4	5	4
3	5	5
1	4	NR
3	4	3
NR	5	4
4	5	4
4	5	4
4	5	NR
3	2	3
5	4	NR
3	3	3
2	3	3
3	3	4
5	5	4
3	4	4
3	5	4
2	4	2
5	5	2
3	4	4



Appreciation		
Pre	Post	FollowUp
4	5	4
4	4	3
4	5	4
3	5	5
1	4	NR
3	4	3
NR	5	4
4	5	4
4	5	4
4	5	NR
3	2	3
5	4	NR
3	3	3
2	3	3
3	3	4
5	5	4
3	4	4
3	5	4
2	4	2
5	5	2
3	4	4



2013 FHC Effectiveness Study

Data Analysis Methodology (cont'd)

- **Statistical significance** means that an observed difference in average (mean) value of the sets of observations results from some factor other than chance.
- Statistical significance is reported in terms of *p-value*, a measure of the likelihood that an observed difference in observation means is a result of chance. Therefore the lower the p-value, the greater the confidence that the observed difference in means is statistically significant.
- P-value is calculated using the *F Statistic*, which is calculated using the number of repetitions of the observation, the number of observations, and the observations themselves.

$$SS_{time} = SS_b = \sum_{i=1}^k n_i (\bar{x}_i - \bar{x})^2$$
$$SS_w = \sum_1 (x_{i1} - \bar{x}_1)^2 + \sum_2 (x_{i2} - \bar{x}_2)^2 + \dots + \sum_k (x_{ik} - \bar{x}_k)^2$$

$$SS_{subjects} = k \cdot \sum (\bar{x}_i - \bar{x})^2$$

$$SS_{error} = SS_w - SS_{subjects}$$

$$MS_{time} = \frac{SS_{time}}{(k-1)}$$

$$MS_{error} = \frac{SS_{error}}{(n-1)(k-1)}$$

$$F = \frac{MS_{time}}{MS_{error}}$$

2013 FHC Effectiveness Study

Data Analysis Methodology (cont'd)

- In this study, the **observations** are the survey responses collected at the beginning and end of camp and a number of weeks later.
- The *null hypothesis* we are investigating is that the mean values of the survey responses for each **variable** (needs and behaviors) remain equal across all three surveys – that is, there is no change in these means due to attending Family HEART Camp.
- When there is a measured difference, then, we look at the p-value to see if the difference is **statistically significant**. For our purposes, a p-value less than 0.10 meets this standard.
- A statistically significant difference indicates that the null hypothesis is incorrect – there is a change in these means (an effect) due to attending Family HEART Camp.

Appreciation					
Source	SS	df	MS	F	P-value
Time	8.424242	2	4.212121212	11.12	7.16274E-05
Error	24.24242	64	0.378787879		
Subjects	38.9697	32			
Total	34.35897	98			

← Statistically Significant!

2013 FHC Effectiveness Study

Data Analysis Implementation

- Analysis Platform: Microsoft Excel 2010 with Visual Basic for Applications (VBA) running on Windows 8.1.
- Due to limitations of Excel's built-in ANOVA functions, a custom, automated implementation of the Repeated Measures ANOVA calculations was created.
- This implementation was then carried out for each of the thirty-six variables (12 needs, 12 behaviors (self) and 12 behaviors (family) using two datasets:
 - First, the complete dataset of pre, post and follow-up responses
 - Second, the dataset containing just the pre and post responses, to isolate the effect of the week at Family HEART Camp on the survey responses
- The results obtained are displayed in the tables and charts on the following slides.

index	pre	post	follow-up	sum	mean	pre-mean sq	post-mean sq	follow-up-mean sq	mean dif sq	k	3
1	4	5	4	13	4.33333333	0.33	0.77	0.13	0.37	n	33
2	4	4	3	11	3.66666667	0.33	0.01	0.40	0.00	DF.time	2
3	4	5	4	13	4.33333333	0.33	0.77	0.13	0.37	DF.error	64
4	3	5	5	13	4.33333333	0.18	0.77	1.86	0.37	SS.time	8.42424
5	1	4	NR	0	0	0.00	0.00	0.00	0.00	SS.within	63.21
6	3	4	3	10	3.33333333	0.18	0.01	0.40	0.16	SS.subjects	38.9697

Groups	Count	Average	p-value
pre	33	3.42	7.16E-05
post	33	4.12	
follow-up	33	3.64	

Type	Name	n	Pre	Post	follow-Up	p-value	DF.time
Needs	Appreciation	33	3.42	4.12	3.64	7.16E-05	

$$SS_{time} = SS_b = \sum_{i=1}^k n_i (\bar{x}_i - \bar{x})^2$$

$$SS_w = \sum_1 (x_{i1} - \bar{x}_1)^2 + \sum_2 (x_{i2} - \bar{x}_2)^2 + \dots + \sum_k (x_{ik} - \bar{x}_k)^2$$

$$SS_{subjects} = k \cdot \sum (\bar{x}_i - \bar{x})^2$$

2013 FHC Effectiveness Study

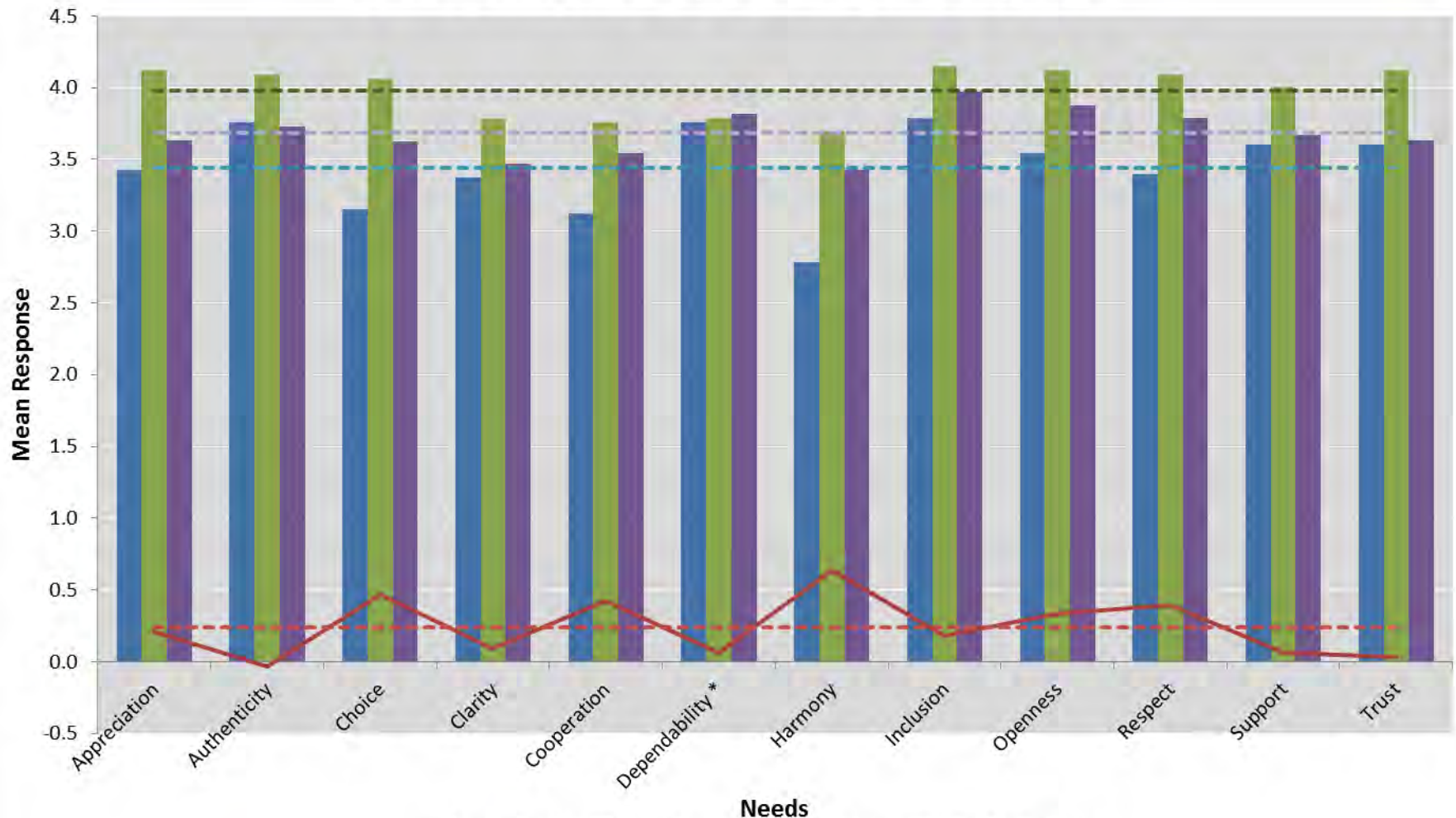
Analysis Results

Variable	n	Pre-Camp Mean	Post-Camp Mean	Follow-Up Mean	Mean Response Delta	p-value
Appreciation	33	3.42	4.12	3.64	0.21	0.0001
Authenticity	33	3.76	4.09	3.73	-0.03	0.0305
Choice	32	3.16	4.06	3.63	0.47	0.0000
Clarity	32	3.38	3.78	3.47	0.09	0.0706
Cooperation	33	3.12	3.76	3.55	0.42	0.0023
Dependability *	33	3.76	3.79	3.82	0.06	0.9360
Harmony	33	2.79	3.70	3.42	0.64	0.0001
Inclusion	33	3.79	4.15	3.97	0.18	0.0746
Openness	33	3.55	4.12	3.88	0.33	0.0094
Respect	33	3.39	4.09	3.79	0.39	0.0004
Support	33	3.61	4.00	3.67	0.06	0.0775
Trust	33	3.61	4.12	3.64	0.03	0.0087
Overall Mean	32.8	3.44	3.98	3.68	0.24	N/A

Needs: Pre-Post-Follow-up (At Camp and Beyond)

* Indicates the difference in response means is not statistically significant

Mean Survey Responses: Needs Pre - Post - Follow-Up (At Camp and Beyond)



* indicates the difference in response means is not statistically significant



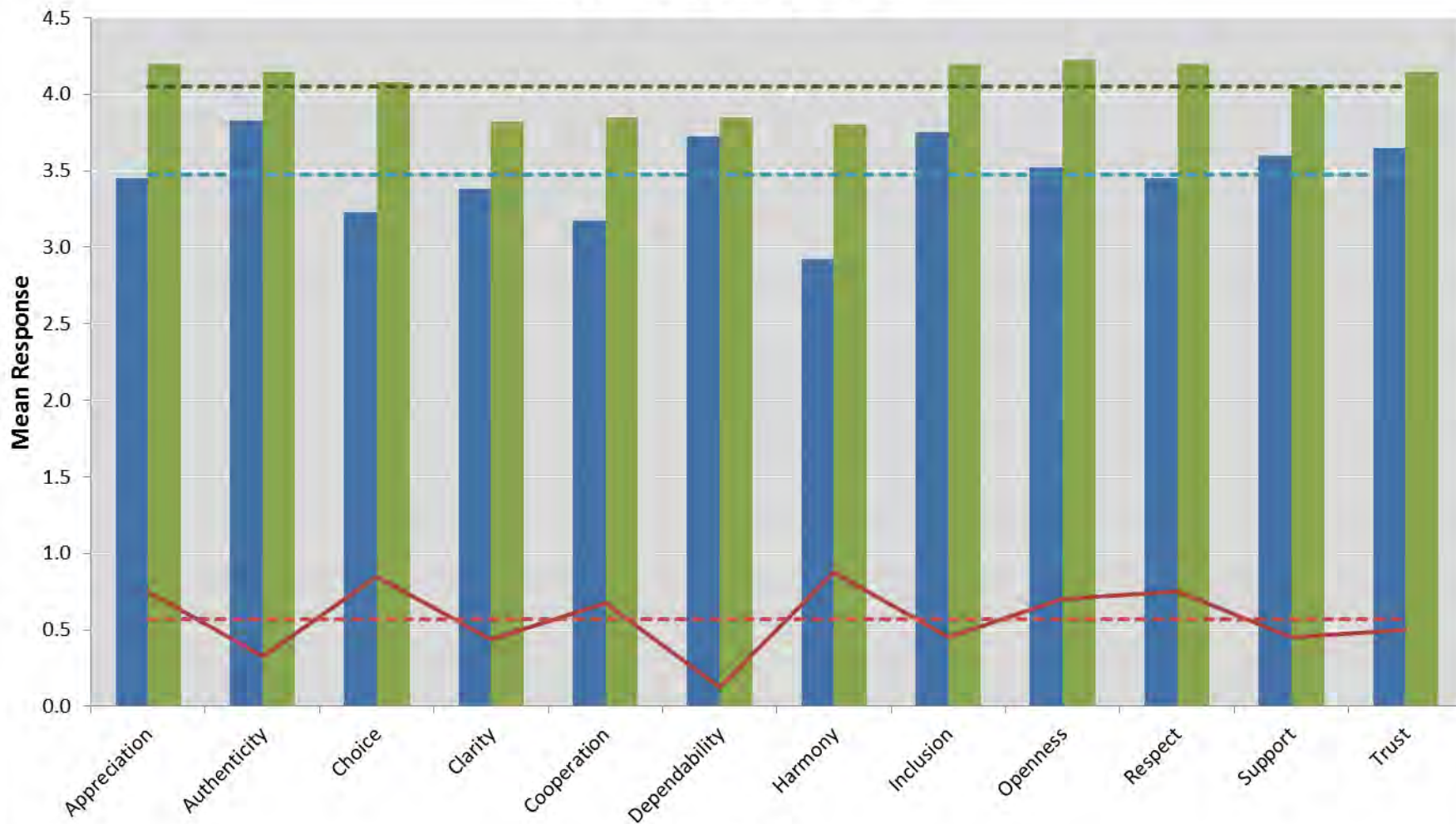
2013 FHC Effectiveness Study Analysis Results (Cont'd)

Variable	n	Pre-Camp Mean	Post-Camp Mean	Mean Response Delta	p-value
Appreciation	40	3.45	4.20	0.75	0.0000
Authenticity	40	3.83	4.15	0.33	0.0000
Choice	39	3.23	4.08	0.85	0.0000
Clarity	39	3.38	3.82	0.44	0.0000
Cooperation	40	3.18	3.85	0.68	0.0000
Dependability	40	3.73	3.85	0.13	0.0000
Harmony	40	2.93	3.80	0.88	0.0000
Inclusion	40	3.75	4.20	0.45	0.0000
Openness	40	3.53	4.23	0.70	0.0000
Respect	40	3.45	4.20	0.75	0.0000
Support	40	3.60	4.05	0.45	0.0000
Trust	40	3.65	4.15	0.50	0.0000
Overall Mean	39.8	3.47	4.05	0.57	N/A

Needs: Pre-Post (At Camp)

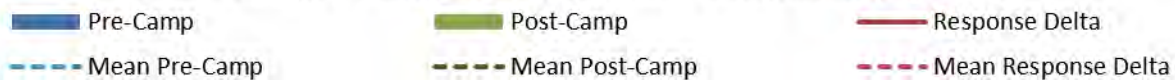
* Indicates the difference in response means is not statistically significant

Mean Survey Responses: Needs Pre - Post (At Camp)



Needs

* indicates the difference in response means is not statistically significant



2013 FHC Effectiveness Study

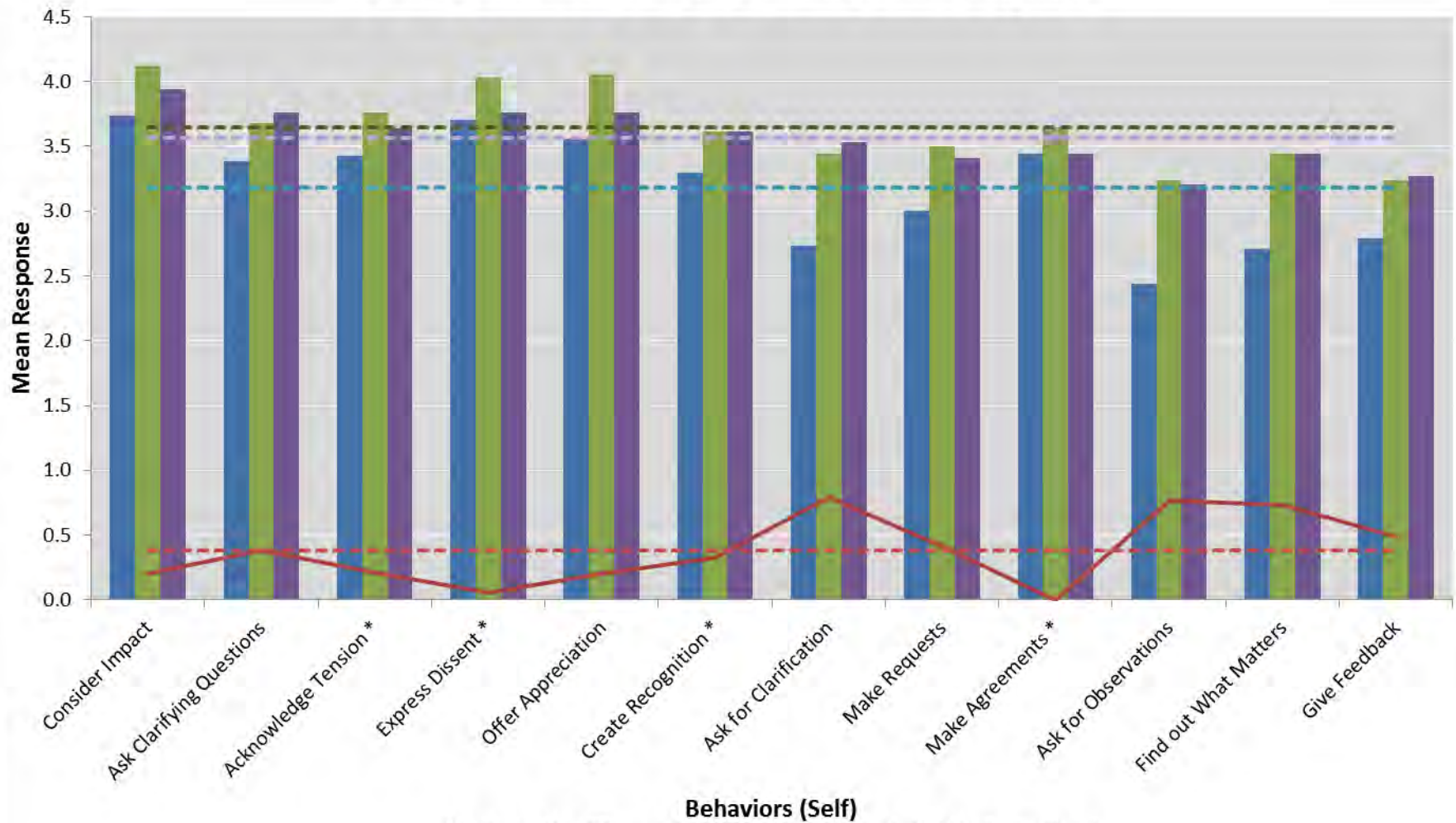
Analysis Results (Cont'd)

Variable	n	Pre-Camp Mean	Post-Camp Mean	Follow-Up Mean	Mean Response Delta	p-value
Consider Impact	34	3.74	4.12	3.94	0.21	0.0073
Ask Clarifying Questions	34	3.38	3.68	3.76	0.38	0.0530
Acknowledge Tension *	33	3.42	3.76	3.64	0.21	0.1143
Express Dissent *	34	3.71	4.03	3.76	0.06	0.1163
Offer Appreciation	34	3.56	4.06	3.76	0.21	0.0302
Create Recognition Opportunities *	34	3.29	3.62	3.62	0.32	0.2185
Ask for Clarification	34	2.74	3.44	3.53	0.79	0.0007
Make Requests	34	3.00	3.50	3.41	0.41	0.0093
Make Agreements *	34	3.44	3.65	3.44	0.00	0.2597
Ask for Observations	34	2.44	3.24	3.21	0.76	0.0001
Find out What Matters	34	2.71	3.44	3.44	0.74	0.0005
Give Feedback	33	2.79	3.24	3.27	0.48	0.0087
Overall Mean	32.8	3.18	3.65	3.57	0.38	N/A

Behavior (Self): Pre-Post-Follow-up (At Camp and Beyond)

* Indicates the difference in response means is not statistically significant

Mean Survey Responses: Behaviors (Self) Pre - Post - Follow-Up (At Camp and Beyond)



* indicates the difference in response means is not statistically significant



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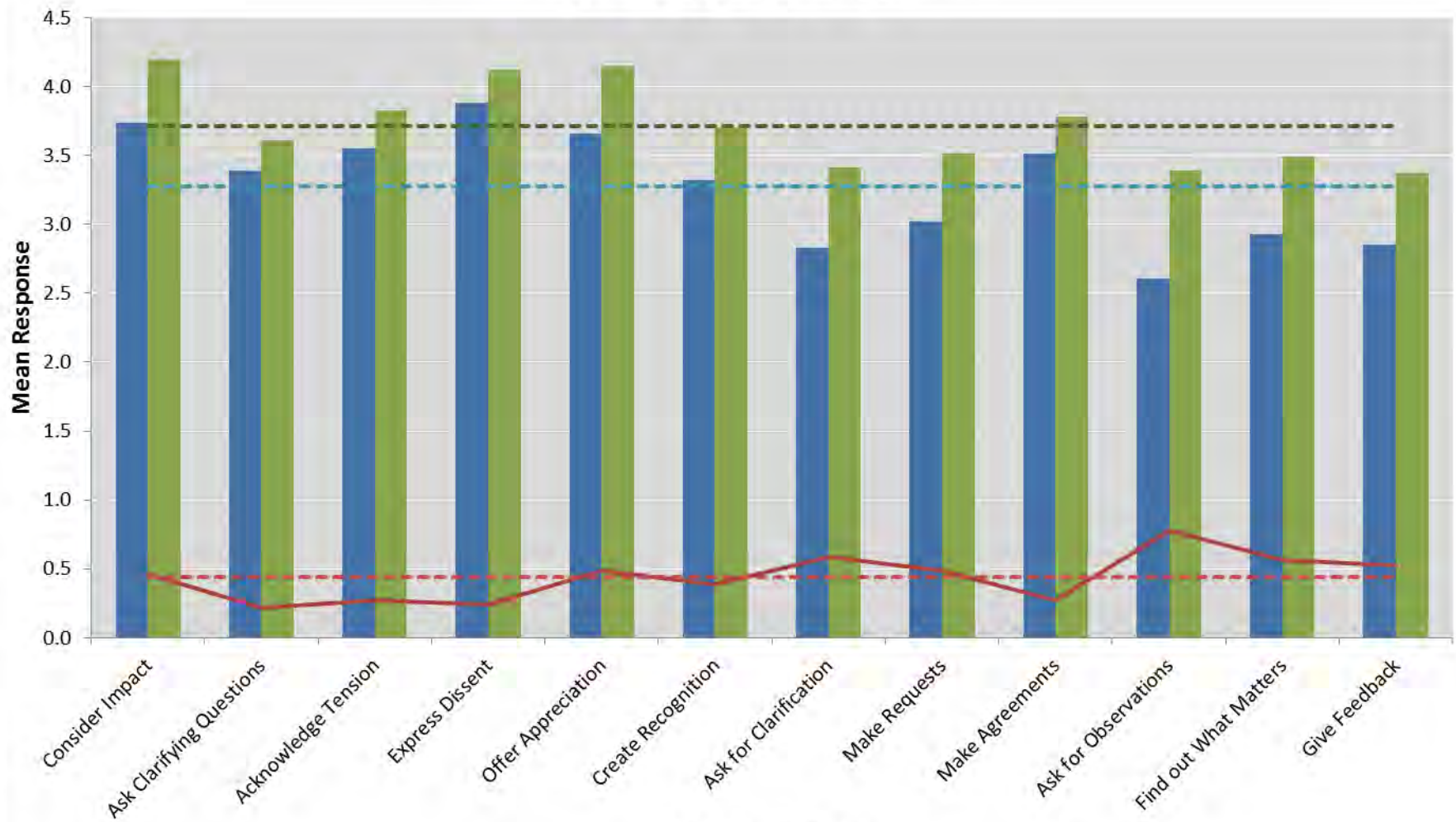
Analysis Results (Cont'd)

Variable	n	Pre-Camp Mean	Post-Camp Mean	Mean Response Delta	p-value
Consider Impact	41	3.73	4.20	0.46	0.0000
Ask Clarifying Questions	41	3.39	3.61	0.22	0.0000
Acknowledge Tension	40	3.55	3.83	0.28	0.0000
Express Dissent	41	3.88	4.12	0.24	0.0000
Offer Appreciation	41	3.66	4.15	0.49	0.0000
Create Recognition Opportunities	41	3.32	3.71	0.39	0.0000
Ask for Clarification	41	2.83	3.41	0.59	0.0000
Make Requests	41	3.02	3.51	0.49	0.0000
Make Agreements	41	3.51	3.78	0.27	0.0000
Ask for Observations	41	2.61	3.39	0.78	0.0000
Find out What Matters	41	2.93	3.49	0.56	0.0000
Give Feedback	40	2.85	3.38	0.53	0.0000
Overall Mean	40.8	3.27	3.71	0.44	N/A

Behavior (Self): Pre-Post (At Camp)

* Indicates the difference in response means is not statistically significant

Mean Survey Responses: Behaviors (Self) Pre - Post (At Camp)



Behaviors (Self)

* indicates the difference in response means is not statistically significant

■ Pre-Camp

■ Post-Camp

— Response Delta

- - - Mean Pre-Camp

- - - Mean Post-Camp

- - - Mean Response Delta

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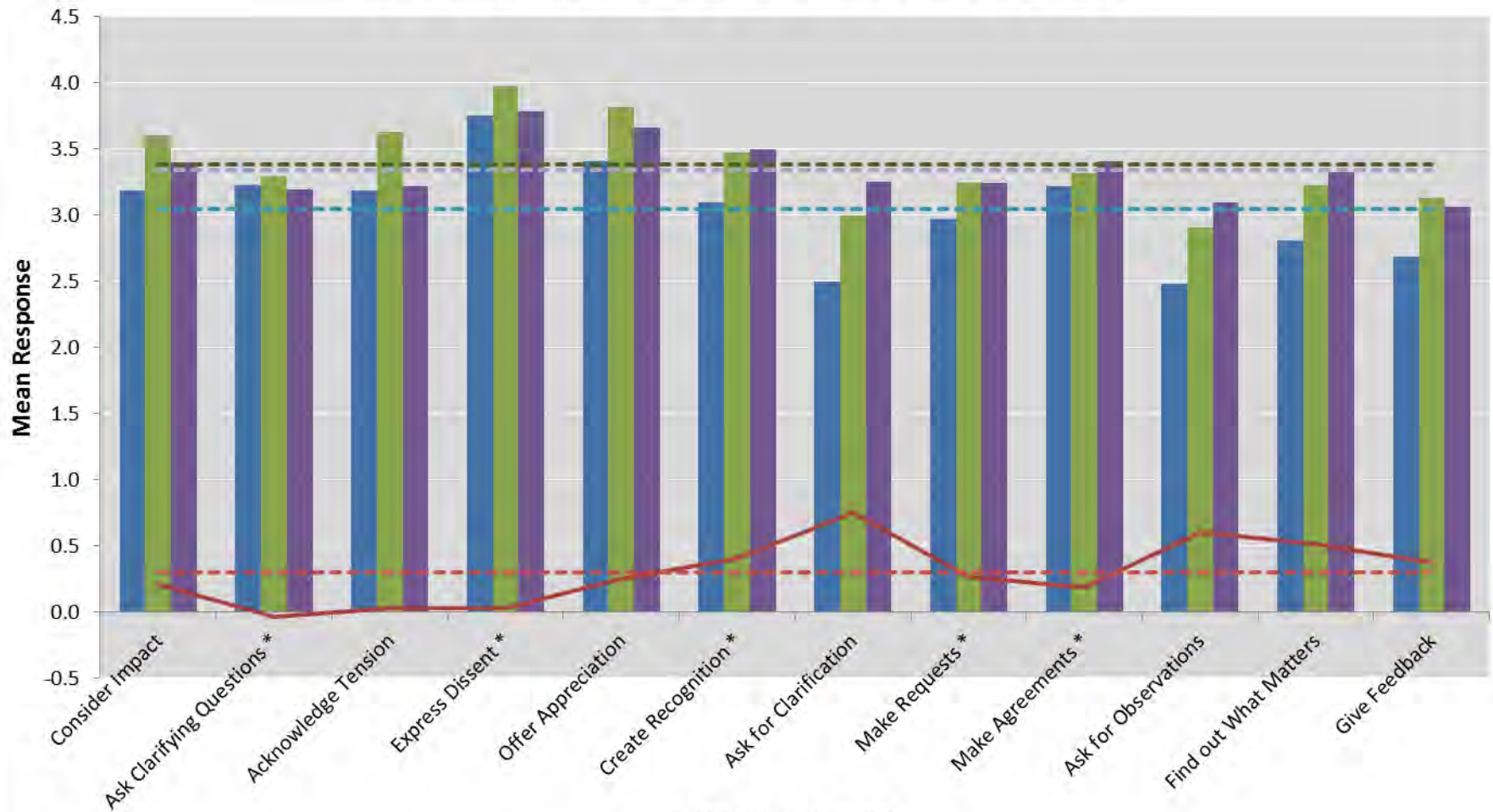
Analysis Results (Cont'd)

Variable	n	Pre-Camp Mean	Post-Camp Mean	Follow-Up Mean	Mean Response Delta	p-value
Consider Impact	33	3.18	3.61	3.39	0.21	0.0128
Ask Clarifying Questions *	31	3.23	3.29	3.19	-0.03	0.8706
Acknowledge Tension	32	3.19	3.63	3.22	0.03	0.0179
Express Dissent *	32	3.75	3.97	3.78	0.03	0.4955
Offer Appreciation	32	3.41	3.81	3.66	0.25	0.0545
Create Recognition Opportunities *	32	3.09	3.47	3.50	0.41	0.1689
Ask for Clarification	32	2.50	3.00	3.25	0.75	0.0005
Make Requests *	33	2.97	3.24	3.24	0.27	0.1931
Make Agreements *	32	3.22	3.31	3.41	0.19	0.4693
Ask for Observations	33	2.48	2.91	3.09	0.61	0.0025
Find out What Matters	31	2.81	3.23	3.32	0.52	0.0275
Give Feedback	32	2.69	3.13	3.06	0.38	0.0464
Overall Mean	32.1	3.04	3.38	3.34	0.30	N/A

Behavior (Family): Pre-Post-Follow-up (At Camp and Beyond)

* Indicates the difference in response means is not statistically significant

Mean Survey Responses: Behaviors (Family) Pre - Post - Follow-Up (At Camp and Beyond)



Behaviors (Family)

* indicates the difference in mean responses is not statistically significant



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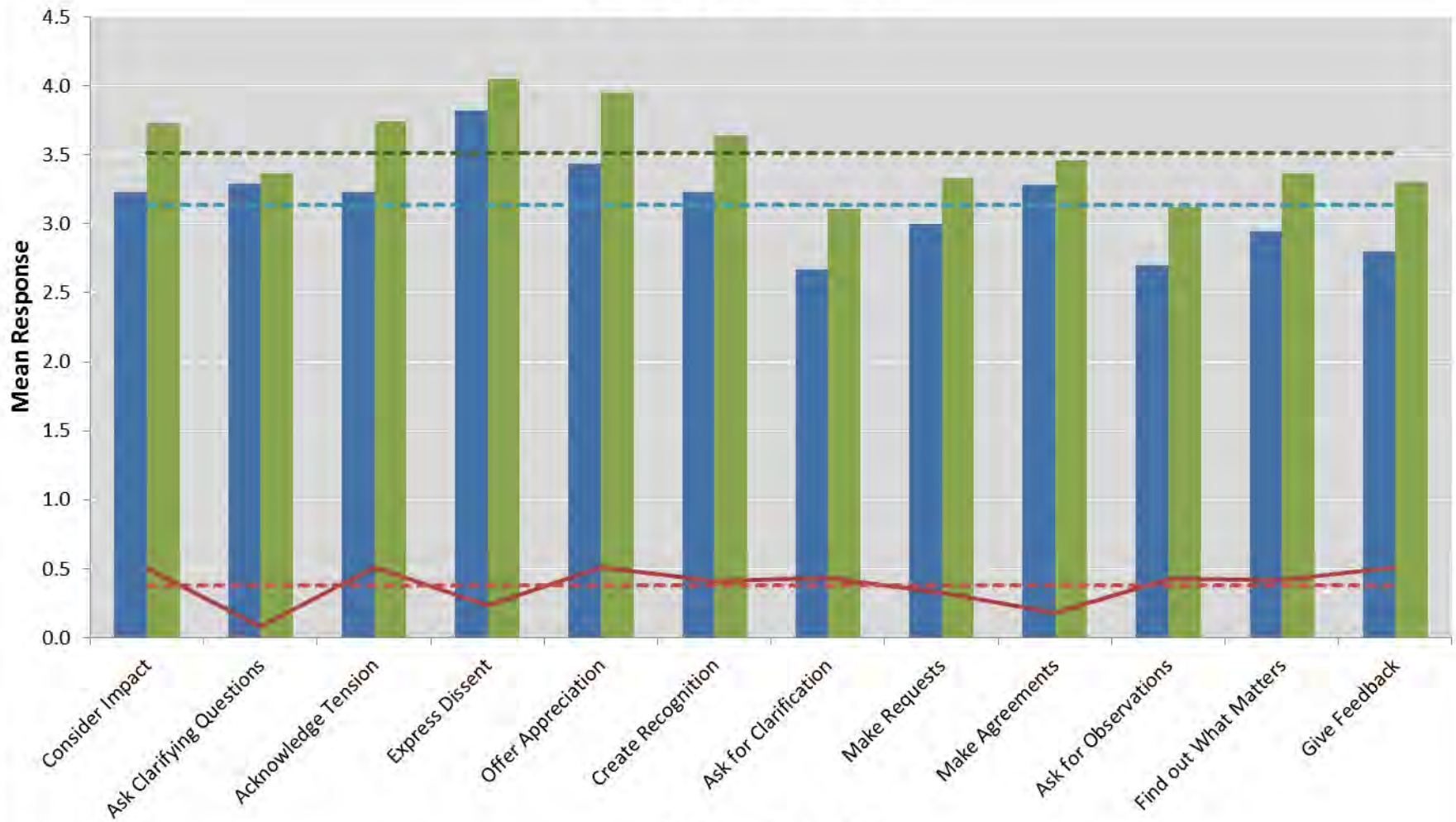
Analysis Results (Cont'd)

Variable	n	Pre-Camp Mean	Post-Camp Mean	Mean Response Delta	p-value
Consider Impact	40	3.23	3.73	0.50	0.0000
Ask Clarifying Questions	38	3.29	3.37	0.08	0.0000
Acknowledge Tension	39	3.23	3.74	0.51	0.0000
Express Dissent	39	3.82	4.05	0.23	0.0000
Offer Appreciation	39	3.44	3.95	0.51	0.0000
Create Recognition Opportunities	39	3.23	3.64	0.41	0.0000
Ask for Clarification	39	2.67	3.10	0.44	0.0000
Make Requests	40	3.00	3.33	0.33	0.0000
Make Agreements	39	3.28	3.46	0.18	0.0000
Ask for Observations	40	2.70	3.13	0.43	0.0000
Find out What Matters	38	2.95	3.37	0.42	0.0000
Give Feedback	39	2.79	3.31	0.51	0.0000
Overall Mean	39.1	3.14	3.51	0.38	N/A

Behavior (Family): Pre-Post (At Camp)

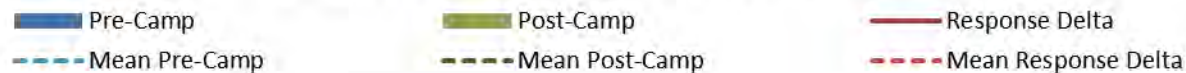
* Indicates the difference in response means is not statistically significant

Mean Survey Responses: Behaviors (Family) Pre - Post (At Camp)



Behaviors (Family)

* indicates the difference in response means is not statistically significant



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Conclusions: Needs

The results of this analysis, as described in the previous slides, lead to the following conclusions about **needs**:

- Participation in Family HEART Camp has a measurable and statistically significant positive impact on the level of satisfaction of all of the needs measured in this study.
- With the exception of the measured need *dependability*, this improvement continued up to eight weeks after the end of camp.

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Conclusions: Behaviors (Self)

The results of this analysis, as described in the previous slides, lead to the following conclusions about **behaviors** reported by survey respondents about **themselves**:

- Participation in Family HEART Camp has a measurable and statistically significant positive impact on the frequency of observation of all of the behaviors measured in this study.
- With the exception of the behaviors listed below, this impact continues up to eight weeks after the end of camp.
 - *Acknowledge Tension*
 - *Express Dissent*
 - *Create Recognition Opportunities*
 - *Make Agreements*

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Conclusions: Behaviors (Family)

The results of this analysis, as described in the previous slides, lead to the following conclusions about **behaviors** reported by survey respondents about **the members of their families**:

- Participation in Family HEART Camp has a measurable and statistically significant positive impact on the frequency of observation of all of the behaviors measured in this study.
- With the exception of the behaviors listed below, this impact continues up to eight weeks after the end of camp.
 - *Ask Clarifying Questions*
 - *Express Dissent*
 - *Create Recognition Opportunities*
 - *Make Requests*
 - *Make Agreements*

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Areas for Follow-Up Analysis

In the course of this analysis, the following possible areas for further research and/or follow-up analysis were determined:

- Statistical comparison of the Behaviors (Self) and Behaviors (Family) data to determine if there is a statistically significant difference in the mean responses for these two categories.
- Demographic analysis to determine if there is a measurable effect upon either Needs or Behaviors responses due to demographic status:
 - Age
 - Gender
 - Prior NVC experience
 - Prior family camp experience
 - Location of 2013 camp during study

Family HEART Camp

*Summer Camp
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Family HEART Camp Effectiveness Study

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