

PRELIMINARY EVALUATION OF THE *QUENCHING THE FATHER THIRST* PROGRAM

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Initial evaluation of *Quenching the Father Thirst* program consists of measurement of self-reported behavioral changes of participant fathers. Valid, reliable measures of critical attitudes were developed and field tested. A small but adequate sample has completed both a pre and a post assessment. The results of repeated measures Analysis of Variance indicate very strong effect of the program activities.

This brief summary of preliminary evaluation activities will discuss the technical adequacy of the measures and the testing of research hypotheses. Technical adequacy analyses have been conducted in accordance with the American Psychological Association *Standards for Educational & Psychological Testing*. Construct validity of each subscale has been established through the application of principle axis factor analysis. Items with satisfactory loadings (.45 or higher) were included in scales.

Each set of items were treated with a statistical technique for establishing a reliability coefficient. All coefficients were at least adequate with most at .8 or higher, which is quite strong for mental measurements.

The tables in this report will list the items by their number on the assessment form (RFP1 to RFP 35), their order in strength of factor loading, the wording of the item, and the factor loading. SPSS output with reliability statistics will be presented also.

The response categories constituted a Likert scale as follows: “strongly disagree,” “disagree,” “uncertain,” “agree,” and “strongly agree.” Quantitatively, the responses were weighted from 1 for “strongly disagree,” to 5 for “strongly agree.”

Paternal Assessment Scale

The *Paternal Assessment Scale* is a set of 35 items with several embedded subscales. For instance, **Table 1** is a subset of 13 of the 35 items that measure a single of dimension of the fathering behaviors taught to the program participants. These 13 items are responsible for the largest amount of variance within a dataset of responses from 97 fathers.

Five additional scales with less explanatory power will be explained also. As scales four, five, and six are strengthened, additional items will be developed and tested. Statistical power of the analyses will be enhanced by more sensitive scales.

| “Closeness to Children Scale” | | | |
|--------------------------------------|----|---|------|
| RFP 8 | 1 | I say positive things to encourage my child. | .781 |
| RFP 6 | 2 | I tell my child that I love him/her. | .731 |
| RFP 7 | 3 | I show my child affection by a hug or kiss. | .717 |
| RFP 25 | 4 | I encourage my child to participate in physical activity. | .694 |
| RFP 10 | 5 | My child knows I am available if he/she has a problem. | .688 |
| RFP 15 | 6 | My child can talk to me. | .672 |
| RFP 32 | 7 | I teach my child how to make good decisions. | .654 |
| RFP 14 | 8 | I encourage my child to express opinions. | .629 |
| RFP 12 | 9 | I give my child full attention. | .624 |
| RFP 9 | 10 | I sometimes surprise my child with fun and gifts. | .617 |
| RFP 22 | 11 | I encourage my child to wash hands. | .538 |
| RFP 34 | 12 | I protect my child from harmful situations. | .523 |
| RFP 30 | 13 | I help my child think about a life vocation. | .489 |

Table 1

As indicated by **Tables 2 and 3**, the items in **Table 1** are internally consistent and can be summated into a subscale score. The subscale score, which as a possible range of 13 to 65 has been utilized as a pre and post measure of participant’s behaviors in relation to their children. These behaviors could be characterized as behaviors leading to “closeness between father and child.”

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .971 | 13 |

Table 2

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|--|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| RFP8 I SAY POSITIVE THINGS TO ENCOURAGE MY CHILD | 49.69 | 157.077 | .911 | .967 |
| RFP6 I TELL MY CHILD THAT I LOVE HIM OR HER | 49.53 | 159.392 | .870 | .968 |
| RFP7 I SHOW MY CHILD AFFECTION BY A HUG OR KISS | 49.63 | 158.352 | .872 | .968 |
| RFP25 I ENCOURAGE MY CHILD TO PARTICIPATE IN PHYSICAL ACTIVITY | 49.70 | 163.142 | .821 | .969 |
| RFP10 MY CHILD KNOWS I AM AVAILABLE IF HE OR SHE HAS PROBLEM | 49.59 | 160.036 | .900 | .967 |
| RFP15 MY CHILD CAN TALK TO ME | 49.59 | 168.292 | .693 | .971 |
| RFP32 I TEACH MY CHILD HOW TO MAKE GOOD DECISIONS | 49.77 | 162.714 | .864 | .968 |
| RFP14 I ENCOURAGE MY CHILD TO EXPRESS OPINIONS | 49.75 | 160.842 | .868 | .968 |
| RFP12 I GIVE MY CHILD MY FULL ATTENTION | 49.69 | 160.844 | .854 | .968 |
| RFP9 I SOMETIMES SURPRISE MY CHILD WITH FUN AND GIFTS | 49.93 | 159.274 | .821 | .969 |
| RFP22 I ENCOURAGE MY CHILD TO WASH HANDS | 49.60 | 165.057 | .784 | .970 |
| RFP34 I PROTECT MY CHILD FROM HARMFUL SITUATIONS | 49.72 | 160.783 | .822 | .969 |
| RFP30 I HELP MY CHILD THINK ABOUT LIFE VOCATION | 49.89 | 164.080 | .775 | .970 |

Table 3

It is hypothesized that completion of the program will result in significantly improved self-reported behaviors. In relation to the items in **Table 1**, this hypothesis was tested with repeated measures analysis of variance (ANOVA). Pre and post scale scores (scores resulting from summing 13 items) for individuals were matched and differences compared. **Tables 4** through **8** display *SPSS* (statistical software package) output. Given the small sample, it can be stated that the pre and post differences are significant ($.07 < .10$).

Multivariate Tests ^b

| Effect | | Value | F | Hypothesis df | Error df | Sig. |
|---------|--------------------|-------|--------------------|---------------|----------|------|
| factor1 | Pillai's Trace | .159 | 3.589 ^a | 1.000 | 19.000 | .073 |
| | Wilks' Lambda | .841 | 3.589 ^a | 1.000 | 19.000 | .073 |
| | Hotelling's Trace | .189 | 3.589 ^a | 1.000 | 19.000 | .073 |
| | Roy's Largest Root | .189 | 3.589 ^a | 1.000 | 19.000 | .073 |

a. Exact statistic

b.

Design: Intercept

Within Subjects Design: factor1

Table 4

Mauchly's Test of Sphericity ^b

Measure: MEASURE_1

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | df | Sig. | Epsilon ^a | | |
|------------------------|-------------|--------------------|----|------|----------------------|-------------|-------------|
| | | | | | Greenhouse-Geisser | Huynh-Feldt | Lower-bound |
| factor1 | 1.000 | .000 | 0 | . | 1.000 | 1.000 | 1.000 |

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b.

Design: Intercept

Within Subjects Design: factor1

Table 5

Tests of Within-Subjects Effects

Measure: MEASURE_1

| Source | | Type III Sum of Squares | df | Mean Square | F | Sig. |
|----------------|--------------------|-------------------------|--------|-------------|-------|------|
| factor1 | Sphericity Assumed | 270.400 | 1 | 270.400 | 3.589 | .073 |
| | Greenhouse-Geisser | 270.400 | 1.000 | 270.400 | 3.589 | .073 |
| | Huynh-Feldt | 270.400 | 1.000 | 270.400 | 3.589 | .073 |
| | Lower-bound | 270.400 | 1.000 | 270.400 | 3.589 | .073 |
| Error(factor1) | Sphericity Assumed | 1431.600 | 19 | 75.347 | | |
| | Greenhouse-Geisser | 1431.600 | 19.000 | 75.347 | | |
| | Huynh-Feldt | 1431.600 | 19.000 | 75.347 | | |
| | Lower-bound | 1431.600 | 19.000 | 75.347 | | |

Table 6

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

| Source | factor1 | Type III Sum of Squares | df | Mean Square | F | Sig. |
|----------------|---------|-------------------------|----|-------------|-------|------|
| factor1 | Linear | 270.400 | 1 | 270.400 | 3.589 | .073 |
| Error(factor1) | Linear | 1431.600 | 19 | 75.347 | | |

Table 7

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------|-------------------------|----|-------------|----------|------|
| Intercept | 132250.000 | 1 | 132250.000 | 1146.328 | .000 |
| Error | 2192.000 | 19 | 115.368 | | |

Table 8

Table 9 displays seven items measuring behaviors pertaining to interactions between the program participants and their children. This interaction scale was also tested with repeated measures analysis of variance. **Tables 10** through **14** displays *SPSS* output for a the ANOVA. The difference is significant at less than .05.

| “Interaction with Children Scale” | | | |
|--|---|--|------|
| RFP 3 | 1 | I interact with my child everyday | .834 |
| RFP 35 | 2 | I spend time daily playing with my child | .741 |
| RFP 1 | 3 | My child sees me every day | .740 |
| RFP 11 | 4 | I take daily time to talk to my child | .723 |
| RFP 13 | 5 | I ask my child questions daily | .665 |
| RFP 4 | 6 | I provide for the physical needs of my child | .608 |
| RFP 5 | 7 | My child knows that I am available | .596 |

Table 9

Multivariate Tests ^b

| Effect | | Value | F | Hypothesis df | Error df | Sig. |
|---------|--------------------|-------|--------------------|---------------|----------|------|
| factor1 | Pillai's Trace | .245 | 6.162 ^a | 1.000 | 19.000 | .023 |
| | Wilks' Lambda | .755 | 6.162 ^a | 1.000 | 19.000 | .023 |
| | Hotelling's Trace | .324 | 6.162 ^a | 1.000 | 19.000 | .023 |
| | Roy's Largest Root | .324 | 6.162 ^a | 1.000 | 19.000 | .023 |

a. Exact statistic

b.

Design: Intercept

Within Subjects Design: factor1

Table 10

Mauchly's Test of Sphericity ^b

Measure: MEASURE_1

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | df | Sig. | Epsilon ^a | | |
|------------------------|-------------|--------------------|----|------|----------------------|-------------|-------------|
| | | | | | Greenhouse-Geisser | Huynh-Feldt | Lower-bound |
| factor1 | 1.000 | .000 | 0 | . | 1.000 | 1.000 | 1.000 |

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b.

Design: Intercept

Within Subjects Design: factor1

Table 11

Tests of Within-Subjects Effects

Measure: MEASURE_1

| Source | | Type III Sum of Squares | df | Mean Square | F | Sig. |
|----------------|--------------------|-------------------------|--------|-------------|-------|------|
| factor1 | Sphericity Assumed | 136.900 | 1 | 136.900 | 6.162 | .023 |
| | Greenhouse-Geisser | 136.900 | 1.000 | 136.900 | 6.162 | .023 |
| | Huynh-Feldt | 136.900 | 1.000 | 136.900 | 6.162 | .023 |
| | Lower-bound | 136.900 | 1.000 | 136.900 | 6.162 | .023 |
| Error(factor1) | Sphericity Assumed | 422.100 | 19 | 22.216 | | |
| | Greenhouse-Geisser | 422.100 | 19.000 | 22.216 | | |
| | Huynh-Feldt | 422.100 | 19.000 | 22.216 | | |
| | Lower-bound | 422.100 | 19.000 | 22.216 | | |

Table 12

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

| Source | factor1 | Type III Sum of Squares | df | Mean Square | F | Sig. |
|----------------|---------|-------------------------|----|-------------|-------|------|
| factor1 | Linear | 136.900 | 1 | 136.900 | 6.162 | .023 |
| Error(factor1) | Linear | 422.100 | 19 | 22.216 | | |

Table 13

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------|-------------------------|----|-------------|---------|------|
| Intercept | 27984.100 | 1 | 27984.100 | 559.152 | .000 |
| Error | 950.900 | 19 | 50.047 | | |

Table 14

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .921 | 7 |

Table 15

As indicated by **Tables 15** and **16**, the internal consistency for the seven items in the “Interaction with Children Scale” is excellent. Hence, summing the items into a total scale score is appropriate.

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| RFP3 I INTERACT WITH MY CHILD EVERY DAY | 21.98 | 44.744 | .857 | .897 |
| RFP35 I SPEND TIME DAILY PLAYING WITH MY CHILD | 21.84 | 47.253 | .729 | .911 |
| RFP1 MY CHILD SEES ME EVERY DAY | 22.13 | 45.344 | .732 | .912 |
| RFP11 I TAKE DAILY TIME TO TALK TO MY CHILD | 21.70 | 46.165 | .819 | .902 |
| RFP4 I PROVIDE FOR THE PHYSICAL NEEDS OF MY CHILD | 21.31 | 48.054 | .686 | .915 |
| RFP6 I TELL MY CHILD THAT I LOVE HIM OR HER | 20.74 | 48.848 | .743 | .910 |
| RFP7 I SHOW MY CHILD AFFECTION BY A HUG OR KISS | 20.86 | 48.562 | .723 | .912 |

Table 16

The remaining tables in this preliminary discussion of program evaluation, display items and technical adequacy statistics for less impactful scales. Further development of these scales is under way. However, the basic constructs to be measured are indicated by the scale titles. As the evaluation process develops, additional items will be tested in each of the scales.

The “Concern for Children’s Well-Being Scale” and “Relationship with Children’s Mother” scales are still in a stage of development. At this time, the scales have fewer items that desirable. Nevertheless, a pre and post comparison of the “Relationship with Children’s Mother Scale” suggests a strong program effect in changing behavior in this domain. Statistical output displaying pre and post analysis of the “Relationship with Children’s Mother Scale” is included in **Tables 23** through **27**. A repeated measures analysis was not undertaken for the “Concern for Children’s Well-Being Scale.”

| “Concern for Children’s Well-Being Scale” | | | |
|--|---|--|------|
| RFP 31 | 1 | My child’s welfare is a priority | .902 |
| RFP 26 | 2 | My child’s education is a priority to me | .898 |
| RFP 21 | 3 | My child’s health is a priority to me | .830 |

Table17

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .964 | 3 |

Table 18

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| RFP31 MY CHILDS WELFARE IS A PRIORITY | 9.24 | 2.426 | .935 | .937 |
| RFP26 MY CHILDS EDUCATION IS A PRIORITY TO ME | 9.22 | 2.414 | .922 | .946 |
| RFP21 MY CHILDS HEALTH IS A PRIORITY TO ME | 9.20 | 2.489 | .909 | .956 |

Table 19

| “Relationship with Children’s Mother Scale” | | | |
|--|---|---|------|
| RFP 18 | 1 | Child’s mother and I have positive discussions | .775 |
| RFP 16 | 2 | I have a good relationship with my child’s mother | .766 |
| RFP 19 | 3 | Child hears me say positive things about mother | .506 |

Table 20

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .819 | 3 |

Table 21

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|--|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| RFP18 CHILDS MOTHER AND I HAVE POSITIVE DISCUSSIONS | 6.88 | 5.360 | .762 | .657 |
| RFP16 I HAVE A GOOD RELATIONSHIP WITH MY CHILDS MOTHER | 7.34 | 5.067 | .709 | .717 |
| RFP19 CHILD HEARS ME SAY POSITIVE THINGS ABOUT MOTHER | 6.53 | 6.934 | .568 | .849 |

Table 22

Multivariate Tests ^b

| Effect | | Value | F | Hypothesis df | Error df | Sig. |
|---------|--------------------|-------|---------------------|---------------|----------|------|
| factor1 | Pillai's Trace | .384 | 11.844 ^a | 1.000 | 19.000 | .003 |
| | Wilks' Lambda | .616 | 11.844 ^a | 1.000 | 19.000 | .003 |
| | Hotelling's Trace | .623 | 11.844 ^a | 1.000 | 19.000 | .003 |
| | Roy's Largest Root | .623 | 11.844 ^a | 1.000 | 19.000 | .003 |

a. Exact statistic

b.

Design: Intercept

Within Subjects Design: factor1

Table 23

Mauchly's Test of Sphericity ^b

Measure: MEASURE_1

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | df | Sig. | Epsilon ^a | | |
|------------------------|-------------|--------------------|----|------|----------------------|-------------|-------------|
| | | | | | Greenhouse-Geisser | Huynh-Feldt | Lower-bound |
| factor1 | 1.000 | .000 | 0 | . | 1.000 | 1.000 | 1.000 |

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b.

Design: Intercept

Within Subjects Design: factor1

Table 24

Tests of Within-Subjects Effects

Measure: MEASURE_1

| Source | | Type III Sum of Squares | df | Mean Square | F | Sig. |
|----------------|--------------------|-------------------------|--------|-------------|--------|------|
| factor1 | Sphericity Assumed | 57.600 | 1 | 57.600 | 11.844 | .003 |
| | Greenhouse-Geisser | 57.600 | 1.000 | 57.600 | 11.844 | .003 |
| | Huynh-Feldt | 57.600 | 1.000 | 57.600 | 11.844 | .003 |
| | Lower-bound | 57.600 | 1.000 | 57.600 | 11.844 | .003 |
| Error(factor1) | Sphericity Assumed | 92.400 | 19 | 4.863 | | |
| | Greenhouse-Geisser | 92.400 | 19.000 | 4.863 | | |
| | Huynh-Feldt | 92.400 | 19.000 | 4.863 | | |
| | Lower-bound | 92.400 | 19.000 | 4.863 | | |

Table 25

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

| Source | factor1 | Type III Sum of Squares | df | Mean Square | F | Sig. |
|----------------|---------|-------------------------|----|-------------|--------|------|
| factor1 | Linear | 57.600 | 1 | 57.600 | 11.844 | .003 |
| Error(factor1) | Linear | 92.400 | 19 | 4.863 | | |

Table 26

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------|-------------------------|----|-------------|---------|------|
| Intercept | 4665.600 | 1 | 4665.600 | 248.727 | .000 |
| Error | 356.400 | 19 | 18.758 | | |

Table 27

| “Assisting Children with Health Care Scale” | | | |
|--|---|--|------|
| RFP 23 | 1 | I make sure my child gets to the dentist | .624 |
| RFP 24 | 2 | I help my child eat nutritionally | .528 |
| RFP 20 | 3 | I want my son/daughter to be like me | .418 |

Table 28

Reliability Statistics

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .731 | 3 |

Table 29

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|--|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| RFP23 I MAKE SURE MY CHILD GETS TO THE DENTIST | 7.10 | 4.512 | .617 | .571 |
| RFP24 I HELP MY CHILD TO EAT NUTRITIONALLY | 7.37 | 4.370 | .693 | .485 |
| RFP20 WANT SON AND DAUGHTER TO BE LIKE ME | 7.81 | 4.887 | .388 | .854 |

Table 30

| “Unnamed Scale” | | | |
|------------------------|---|---|------|
| RFP 33 | 1 | I attend a weekly worship service with my child | .668 |
| RFP 67 | 2 | I read regularly to my child | .490 |

Table 31

Reliability Statistics

| | |
|------------------|------------|
| Cronbach's Alpha | N of Items |
| .652 | 2 |

Table 32

Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|----------------------------|--------------------------------|----------------------------------|----------------------------------|
| RFP33 I ATTEND A WEEKLY WORSHIP SERVICE WITH MY CHILD | 3.14 | 1.541 | .486 | a . |
| RFP27 I READ REGULARLY TO MY CHILD | 2.69 | 1.902 | .486 | a . |

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Table 33

SUMMARY & CONCLUSIONS

This preliminary evaluation report has addressed to critical aspects of program evaluation: (1) development of valid and reliable measuring instruments, and (2) testing a null hypothesis of no significant difference between pre and post measures of targeted behaviors.

Initial results indicate strong positive effects of program delivery. It must be noted that program evaluation is a process. It would not be fair to a much needed and meritorious program to be summatively evaluated in early stages. At this time, further evaluation activities are in development. The program as conceived and delivered is designed to change behaviors, namely moving adjudicated fathers from irresponsibility toward their obligations to healthy acceptance of their roles as financial and moral leaders of their children.

Several subscales have been embedded in an initial instrument of 35 items. Pre and post measures for the following scales were presented in this report:

1. "Closeness to Children": $p < .05$
2. "Interaction with Children's": $p < .05$

3. “Relationship with Children’s Mother Scale”: $p < .05$

In the final analysis, the cost-benefit ratio of the program, when implemented as part of a court program for fathers in arrears in child support, should be advantageous to taxpayers. The cost of pursuing, litigating, and collecting child support payments from fathers in arrears, should be reduced precipitously as a result of program delivery. Data collection and analysis designed to substantiate that major goal is currently under way.