



Abstract

Eating Together as a Family is Worth It (Worth It) is a 15- slide program that highlights the benefits of eating as a family, addresses barriers to eating as a family, and provides hints and tips on how to integrate family meals into busy schedules. *Worth It* was developed and evaluated using a two-stage design.

Low-income females were recruited using a Facebook ad with key words targeting females with limited economic resources. Participant comments and survey responses about *Worth It* were positive. Item responses revealed all slides were rated as acceptable; open-ended comments suggested revisions to make the slides more salient. Slides were revised and evaluated with a separate sample of low-income women, also recruited with a Facebook ad. *Worth It* reflected information needs, comprehension, and interest level of low-income females.

Stage 2: Revisions were made based on responses from Stage 1 assessment. The revised program was reviewed as part of an assessment for another ne/Frames program. Recruitment strategy and targeted sample were the same for both study stages.

Recruitment

Subjects were recruited using a Facebook ad also called an impression (Figure), targeted to females between the ages of 18 and 55 years inclusive, who live in Pennsylvania, speak English and who noted “like” on their Facebook page that included any of the following key words/phrases: Welfare, minimum wage, food bank, WIC, Supplemental Nutrition Assistance Program (SNAP), food stamps, food stamp kids, I need more money, I need more cash, or currently unemployed. Data were screened for duplicate computer IP and email address.

Background

Worth It was developed to increase appreciation of family meals and encourage the practice of family meals among low-income families with school age children. This report details the evaluation of *Worth It* to assess efficacy for use with the targeted audience. This study was approved by The Pennsylvania State University Internal Review Board for the Protection of Human Subjects.

Study Design

Stage 1: Subjects were asked to view *Worth It* and complete a survey about content and process features.

Stage 1: Estimated reach of the Facebook ad was 245,580 people; 807 clicked on the ad, and 9% initiated the survey. 64% of these completed the *Worth It* evaluation.

Stage 2: Estimated reach of the Facebook ad was 201,380 respondents; 795 clicked on the ad; 14% initiated the survey. 64% then completed evaluations of the revised slides.

Figure. Facebook Impression (Ad)

Family Meals—Fuss or Joy?



Let Penn State study know of YOUR family meals & if our info helps. Earn \$15 Walmart card.

Data Collection

Data were collected from an online survey designed with Qualtrics (Provo, UT) and hosted on a Penn State server for 14 calendar days. Item strategies included Likert scale, heat map, ratings (via star or slider scales), and comment box.

Stage 1: Participants completed questions about demographics, (including SNAP-Ed Education and Administration Reporting System items), cognitive behavior and food-related practices, viewed a *Worth It* video loop, and then answered a post-viewing evaluation.

Stage 2: Responses about the revised slides were collected from a separate sample also targeting low-income Pennsylvanians. A Qualtrics-driven (Provo, UT) survey was hosted on The Pennsylvania State University server for 17 calendar days. Revised slides were evaluated with survey items similar to those used in Stage 1.

Results

Respondent Demographics

Most respondents were white with post-high school education. WIC and medical assistance were the most frequently utilized assistance programs; in all, 22% used at least one assistance program in the past year ([Table 1](#)). The majority of households had 2 children under the age of 18. Low-income was defined as using at least one assistance program OR reporting sometimes (34%), often (14%), or always (3%) worrying about money for food: 51% were classified as low-income. The follow-up evaluation sample was similar to Stage 1 respondents ([Table 2](#)).

Attitudes About *Worth It*

Respondents' attitude was assessed by rating agreement using a scale from 1 (Strongly disagree) to 7 (Strongly agree) with 3 statements: 1) . . .helped me think about family meals and feeding my family, 2) Family meals are important for my family, and 3) My family

needs to have more meals together. Mean scores of 5 or higher with a mode of 7 for all 3 items indicated a positive attitude toward the program. The majority of respondents (79%) reported a score of 5.5 or higher for the statement about importance of family meals indicating that family meals are important.

Opinions About *Worth It*

Seven program characteristics or learner responses were listed: Program is easy to read; I learned a lot; This program was helpful; This show was interesting; I understood the information; I liked the pictures in the program; and, I would like to see more like this one. Participants were asked to select all that were TRUE for them, thus more than 1 item could be checked. The average number of items each respondent selected as TRUE for them was 4.2 ± 1.7 . A majority confirmed the program had the right amount of information (75%), indicated that the program was easy to read (94%), was helpful (57%), and understandable (57%). Comments included "I knew some of that information, but it was a good reminder," "I think it is really important for kids in high school to see information like this, before they have kids," and, "I would be surprised if people didn't already know this." Eating competence was related to a more favorable response to *Worth It*. More information on evaluation outcomes is in [Table 3](#).

Response to the Specific Slide Messages

Four slides emphasized the benefits and positive effect of family meals on children and teens:

Slides depicting family meal benefits

- ◆ Kids who eat meals with their families are more likely to be at a healthy weight
- ◆ Kids who help with meals feel important and may try new foods
- ◆ Teens who eat meals with their families are less likely to drink, smoke or do drugs
- ◆ Teens who eat meals with their families have better grades.

These 4 messages resonated with respondents. A slider bar was used to rate the importance of each message from 1 (Not at all important) to 7 (Extremely important). All slide messages were viewed by the majority as either very important or extremely important (Table 4) with means for all slides higher than 5 (very important). From 90 – 98% rated the slide concepts as very important (score of 5).

What gets in the way of family meals?

Respondents viewed two slides about barriers to family meals and provided comments in Stage 1. In Stage 2, respondents compared the original and revised slides and chose the preferred version. Choices were included in the final *Worth It* program.

Stage 1: Results suggested that barriers listed either did not match the pictures or were not understood. Participants identified four main barriers to family meals: fatigue, not having ingredients on hand or in the pantry, cooking skills, and distractions (e.g., TV, video, phone). Respondents in Stage 1 agreed that barriers listed were “all good, valid excuses” and added “cell phones & texting, video games and TV.” They were also confused about a slide showing a woman cooking with captions referencing cooking skills and time as barriers. Respondents noted “if she is too busy to cook why is she cooking” and “...the obstacles of time and money are difficult to overcome”. Comments led to caption changes and development of two new slides addressing busy schedules and sharing family meal tasks.





Stage 2: Respondents compared original and revised slides about family meal barriers (Table 5). Comments (e.g. “both [slides] are accurate on the thoughts that cross my mind,” and “. . . they give realistic reasons why families don’t often eat together”) led to inclusion of the revised slides in the final program. Negative slide comments (e.g., “I like the ... slides, but the (single woman slide) indicates a lot of pure laziness,” and “the women look way too upset about a meal”) did not preclude use of the revised slides.

Table 4. Rating the Importance of the Intervention Message ^a

| |  |  |  |  |
|---------------------------|---|---|---|---|
| Mean | 6.27 | 5.69 | 6.10 | 6.13 |
| Standard Deviation | 0.76 | 0.99 | 1.12 | 0.82 |
| Median | 6.00 | 6.00 | 6.00 | 6.13 |
| Range (min-max) | 4-7 | 3-7 | 2-7 | 4-7 |

^a Respondents rated the importance of the message using a scale from 1 (Not at all Important) to 7 (Extremely Important)

Table 5. Barrier Slides Evaluation

| Initial Slide | Original Slide Evaluation | Revised Slide | Revised Slide Evaluation |
|---|---|--|--|
|  | Respondents noted a conflict between a woman cooking and the caption “don’t know how to cook”, Suggested adding caption “too tired” |  | Revised slide was well received by target audience |
|  | Barriers cited were confusing: suggested adding other family distractions |  | Revised slide was better received by target audience |

Perceptions about slides related to meals and implementing family meals

Four slides addressed family meal characteristics.

Slides about family meal characteristics

- ◆ What makes a meal together fun
- ◆ Family meals can be simple
- ◆ Kids who eat meals with families are more likely to be at healthy weight
- ◆ Families can enjoy precious time

Respondents rated feelings about each of the four slides by using a 7-point star rating system (more stars meant a more positive rating) and provided comments on each slide.

Stage 1: All slides were well received with a mean rating of 5 or more stars out of 7 possible. For these four slides, a 5 star rating was recorded for 57%, 72%, 75%, and 70% respectively. However, concerned comments about three slides prompted revision and follow-up comparison with the original slide.

Stage 2: Comparison of the original and revised slides indicated clear preference for the revised “what makes family meals fun” and “families can enjoy precious time together” slides. However, preference for the revised “simple meals” slide was not as strong, so the original was retained. Results are shown in [Table 6](#).



Family Meal

A “Hot Spot” rating strategy directed respondents to view family members eating pizza together, then to click on the area of the slide that first caught their attention.

Stage 1: “Hot Spot” results suggested attention was not directed to the message or to the father eating with the children.

Stage 2: Cropping the picture to delimit the pizza and rearranging the message on the slide increased attention toward family members and the key message that “Eating together is what is important” (Table 7).

Table 7. Hot Spot: Area of Slide that First Caught Attention

| Original Slide | Original Slide Evaluation | Revised Slide | Revised Slide Assessment |
|---|--|--|---|
|  | Hot Spot assessment revealed focus on pizza slice and little attention on family members |  | Assessment revealed revisions successfully directed attention to family members and the message |

End of Survey Comments

At survey closure respondents were asked to provide additional comments not addressed in the body of the survey. Themes emerging from these comments indicated a belief that simple meals are not healthy meals; requests for recipes or links to healthy recipes; simple recipe sites; and that responsibility for meal preparation and scheduling should be shared. Comments included statements of program support: “Great presentation”, “Very good program!!! We sit down to meals almost every day. My kids don’t realize that so many others do not do this,” “This was a nice presentation and easy to read and follow”, and “shopping is usually the most stressful time for me. I didn’t think about using it as a learning experience for them to actually teach them about the food.” Negative comments and program improvement suggestions were also given, “Most quick meals are not healthy,” “Kids who eat with their families are a healthier weight? I don’t believe that to be true-there are too many obese parents who feed the kids as they would eat themselves”, “maybe share a few simple recipes and add information for families of children with food allergies.” These suggestions were incorporated in program revision by providing suggestions to incorporate family meals into each lifestyle.

Conclusions

Eating Together as a Family is Worth It is a digital photo frame-based program shown to be useful and of interest to the target audience based on a two-stage evaluation plan that included evaluation of revisions made from findings in Stage 1. Evaluation outcomes indicated that revisions improved the program and supported retention of one original slide. Evaluation, revision, and re-evaluation of the *Worth It* program verified usefulness, comprehension, and interest for low-income women.

Table 1. *Worth It* Stage 1 Evaluation Demographics ^{a, b, c}

| | | Full Sample (n=73) | Completers (n=47) | Attriters (n=26) | Low Income ^d (n=37) | Program Assistance (n=23) | Eating Competent (n=20) | Not Eating Competent (n=30) |
|-----------------------------------|--|-----------------------|----------------------|---------------------|-----------------------------------|------------------------------|----------------------------|--------------------------------|
| Mean Age y (SD) | | 35.5 (9.4) | 35.4 (9.4) | 36.4 (10.0) | 34.2 (9.4) | 32.8 (7.7) | 35.3 (10.2) | 34.2 (8.6) |
| BMI | Underweight | 1 | 2 | N/A | 3 | 4 | 5 | 10 |
| | Normal | 17 | 23 | 4 | 24 | 26 | 20 | 20 |
| | Overweight | 32 | 36 | 23 | 24 | 22 | 65 | 23 |
| | Obese | 27 | 36 | 12 | 41 | 35 | 10 | 47 |
| Assistance Program Use | Supplemental Nutrition Assistance Program | 22 | 23 | 17 | 35 | 57 | 5 | 37 |
| | Women, Infants, and Children | 24 | 19 | 42 | 38 | 61 | 10 | 37 |
| | Cash Assistance Benefits | 2 | 2 | N/A | 3 | 4 | 0 | 3 |
| | Temporary Assistance for Needy Families | 2 | 2 | N/A | 3 | 4 | 0 | 3 |
| | Medical Assistance Benefits | 24 | 28 | 8 | 38 | 61 | 10 | 30 |
| | Medicaid | 14 | 13 | 17 | 22 | 35 | 0 | 27 |
| | Medicare Part D-Prescription Drug Coverage | 7 | 9 | N/A | 11 | 17 | 0 | 13 |
| | Low Income Home Energy Assistance Program | 7 | 9 | N/A | 11 | 17 | 0 | 10 |
| | Expanded Food and Nutrition Program | 2 | 2 | N/A | 3 | 4 | 0 | 3 |
| | Food Bank or Food Pantry | 15 | 13 | 25 | 24 | 39 | 0 | 27 |

| | | Full Sample (n=73) | Completers (n=47) | Attriters (n=26) | Low Income ^d (n=37) | Program Assistance (n=23) | Eating Competent (n=20) | Not Eating Competent (n=30) |
|---|----------------------------------|--------------------------|----------------------|---------------------|--------------------------------------|---------------------------------|-------------------------------|-----------------------------------|
| Education | Less than high school | 2 | 2 | N/A | 3 | 5 | 0 | 0 |
| | High School Graduate or GED | 18 | 17 | 20 | 23 | 19 | 15 | 18 |
| | Some college or 2-year degree | 28 | 28 | 30 | 31 | 29 | 15 | 39 |
| | 4-year college degree | 30 | 26 | 50 | 23 | 24 | 40 | 25 |
| | Post-graduate college | 23 | 27 | N/A | 20 | 24 | 30 | 18 |
| Number of children per household | 1 child | 36 | 37 | 33 | 32 | 27 | 27 | 43 |
| | 2 children | 44 | 50 | 22 | 41 | 33 | 73 | 38 |
| | 3 or more children | 18 | 13 | 33 | 27 | 40 | -- | 19 |
| Eating Competence | Not Eating Competent | 60 | 55 | 80 | 83 | 90 | N/A | N/A |

^a Numbers may not sum to 100 due to missing data

^b All column data is from full sample with exception of Evaluation Non-Completers

^c Table entries are percent with exception of Row 1

^d Low-income defined as sometimes, often or always worry about money for food OR any program use

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Table 2. *Worth It* Stage 2 Evaluation Demographics ^{a, b, c}

| | | Full Sample (n=109) | Completers (n=74) | Attriters (n=35) | Low Income ^d (n=55) | Program Assistance (n=32) | Eating Competent (n=30) | Not Eating Competent (n=49) |
|-------------------------------|--|------------------------|----------------------|---------------------|-----------------------------------|------------------------------|----------------------------|--------------------------------|
| Mean Age Y (SD) | | 36.14 (11.9) | 36.7 (12.0) | 24.7 (1.3) | 36.3 (11.8) | 35.4 (11.4) | 35.3 (10.2) | 39.9 (11.9) |
| BMI | Underweight | 0.9 | 1 | N/A | 4 | 0 | 3 | 0 |
| | Normal | 25 | 34 | 75 | 33 | 41 | 43 | 29 |
| | Overweight | 14 | 20 | 25 | 22 | 9 | 10 | 25 |
| | Obese | 29 | 45 | N/A | 42 | 47 | 37 | 43 |
| Assistance Program Use | Supplemental Nutrition Assistance Program | 28 | 27 | 50 | 40 | 69 | 31 | 27 |
| | Women, Infants, and Children | 21 | 19 | 50 | 29 | 50 | 28 | 16 |
| | Cash Assistance Benefits | 9 | 8 | 25 | 13 | 22 | 14 | 6 |
| | Temporary Assistance for Needy Families | 6 | 7 | N/A | 9 | 16 | 10 | 4 |
| | Medical Assistance Benefits | 23 | 22 | 50 | 33 | 56 | 24 | 23 |
| | Medicaid | 12 | 11 | 25 | 16 | 28 | 17 | 8 |
| | Medicare Part D-Prescription Drug Coverage | 8 | 7 | 25 | 11 | 19 | 7 | 8 |
| | Low Income Home Energy Assistance Program | 17 | 16 | 25 | 24 | 41 | 17 | 16 |
| | Expanded Food and Nutrition Program | 3 | 3 | N/A | 4 | 6 | 7 | 0 |
| | Food Bank or Food Pantry | 12 | 11 | 25 | 16 | 28 | 17 | 8 |

| | | Full Sample (n=109) | Completers (n=74) | Attriters (n=35) | Low Income ^d (n=55) | Program Assistance (n=32) | Eating Competent (n=30) | Not Eating Competent (n=49) |
|---|-------------------------------|------------------------|----------------------|---------------------|-----------------------------------|------------------------------|----------------------------|--------------------------------|
| Education | Less than high school | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | High School Graduate or GED | 21 | 20 | 25 | 26 | 28 | 10 | 27 |
| | Some college or 2-year degree | 50 | 51 | 25 | 49 | 59 | 66 | 41 |
| | 4-year college degree | 22 | 20 | 50 | 22 | 6 | 14 | 27 |
| | Post-graduate college | 8 | 8 | N/A | 4 | 6 | 10 | 6 |
| Number of children per household | 1 child | 41 | 39 | 67 | 46 | 47 | 43 | 40 |
| | 2 children | 32 | 32 | 33 | 35 | 26 | 21 | 40 |
| | 3 or more children | 21 | 22 | N/A | 15 | 22 | 29 | 15 |
| Eating Competence | Not Eating Competent | 73 | 62 | 60 | 69 | 63 | N/A | N/A |

^a Numbers may not sum to 100 because of missing data

^b All column data is from full sample with exception of Evaluation Non-Completers

^c Table entries are percent with the exception of Row 1

^d Low-income defined as sometimes, often or always worry about money for food OR any program use

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Table 3. *Worth It* Responses^b

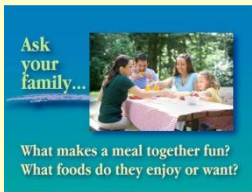


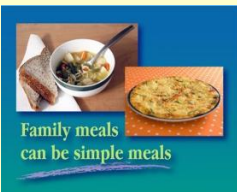


| | All program viewers (n=47) | Low income^a (n=37) | Program Assistance (n=15) | Eating Competent (n=19) | Non-Eating Competent (n=20) |
|--|---------------------------------------|--|--------------------------------------|------------------------------------|--|
| The program is easy to read | 94 | 73 | 65 | 95 | 67 |
| I learned a lot | 30 | 22 | 22 | 40 | 17 |
| The program was helpful | 57 | 35 | 30 | 65 | 37 |
| This show was interesting | 47 | 32 | 35 | 55 | 30 |
| I understood the information | 57 | 68 | 61 | 95 | 60 |
| I liked the pictures in the program | 55 | 38 | 44 | 60 | 33 |
| I would like to see more programs like this one | 30 | 24 | 26 | 40 | 13 |

^a Low-income defined as sometimes, often or always worry about money for food OR any program use

^b Table entries are percent

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Table 6. Slide Preference Reported by Participant Characteristics ^a

| Participant Characteristics | Original | Revised | Original | Revised | Original | Revised |
|-----------------------------|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| Full Sample | 43 (61%) | | 34 (47%) | | 41 (58%) | |
| Low Income | 32 (65%) | | 23 (47%) | | 29 (60%) | |
| Not Eating Competent | 13 (50%) | | 14 (52%) | | 18 (64%) | |
| Not Food Secure | 28 (68%) | | 19 (46%) | | 24 (60%) | |
| Age | | | | | | |
| 32 years or younger | 61% (19) | | 19 (58%) | | 20 (65%) | |
| 33 years or older | 59% (23) | | 15 (40%) | | 21 (54%) | |
| Education | | | | | | |
| High school/some college | 31 (62%) | | 24 (47%) | | 28 (56%) | |
| 4 year degree/post grad | 12 (57%) | | 10 (48%) | | 13 (62%) | |
| Overweight/Obese BMI | 33 (72%) | | 22 (49%) | | 25 (57%) | |

^a Table entry is n (%) of cell sample that chose the revised version.

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