



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 tips on how to integrate family meals into busy schedules. Program assessment was accomplished in two stages: Stage 1 focused on the original program. Stage 2 evaluated responses to revisions made following the Stage 1 assessment and included a follow-up sample who evaluated responses to 2 new slides. Facebook ads for both stages targeted low-income Pennsylvanians. *Worth It* response was positive but suggestions for revisions to increase salience for low-income women were warranted. Revised slides were evaluated with a separate but similar sample of low-income women. Responses informed final program development. *Worth It* demonstrated face and content validity for SNAP-eligible persons.

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. Prior to use with SNAP-eligible persons, *Worth It* was evaluated for usefulness, comprehension and interest. Evaluation occurred in 2 stages. This report details procedures and outcomes of both stages 1 and 2 and provides support for the use of *Worth It* with the targeted audience. This study was approved by The Pennsylvania State University Internal Review Board for the Protection of Human Subjects.

EVALUATION: STAGE 1

Study Design: Cross-section, Online Survey

After completing an online survey that included food and eating behavior items, respondents were directed to view *Worth It* in a video loop, then linked to an online survey about program content and process features.

Recruitment: Facebook Ad

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.

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.

Facebook estimated reach of the ad to be 245,580. 807 clicked on the ad, and 9% (n=73) initiated the survey. Complete evaluations were received by 64% of unique respondents who started the survey (n=47).

Data Collection: Qualtrics Pro

Data were collected over 14 calendar days using an online survey (Qualtrics Pro, Provo, UT) hosted on a Pennsylvania State server. Item format included Likert scales, heat map, ratings (via star or slider scales), and comment boxes. Participants completed questions about demographics (including SNAP-Ed Education and Administration Reporting System items); cognitive behavior and food-related practices, then viewed *Worth It* as a video loop. After viewing the video the desired number of times, participants were directed to an online program evaluation.

Results:

Demographics

Most who agreed to participate were White with some post-secondary education (62%), either overweight or obese (59%) and only 40% were eating competent. Majority of households (62%) had 2 or more children under the age of 18. WIC and medical assistance were utilized by 24% for each of the 2 programs. In all, 39% used at least one assistance program in the past year.

Low-income status, defined as using at least one assistance program OR reporting sometimes, often, or always, worrying about money for food was applied to 63% (n=37) of the sample. Post-secondary education of the low-income participants was reported for 77% and 65% were overweight or obese. A small minority (17%) were eating competent. Additional details are available in Table 1 at the end of this report.

Attitudes Toward *Worth It*

Respondents' attitude toward program content were rated using a scale from 1 (Strongly disagree) to 7 (Strongly agree) for the following 3 statements: 1) The show 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. Mean scores of 5 or higher with a mode of 7 indicated a positive attitude toward program content. A score of 5 or higher was reported by 79%.

Opinions About *Worth It*

Seven program characteristics or learner responses were listed (shown in Table 2): 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 that the program was easy to read (94%), was understandable (57%), and helpful (57%).

Comments About the Program:

- 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
- I would be surprised if people didn't already know this

Table 2. *Worth It* Responses^a

	All program viewers (n=47)	Low-income ^b (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 Table entries are percent



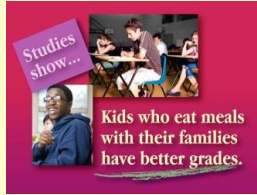
^b Low-income defined as sometimes, often or always worry about money for food OR any program use

Response to the Specific Slide Messages

Benefits and positive effect of family meals on children and teens were emphasized in 3 slides. Respondents used a slider bar 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 3) with means for all slides higher than 5 (very important) and concepts on the 3 slides were rated as very or extremely important by 90 – 98%.

Table 3. 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)

What gets in the way of family meals?

Respondents viewed the following two slides about barriers to family meals and provided comments.



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 commented that

- Barriers listed were all good, valid excuses
- add cell phones & texting, video games and TV

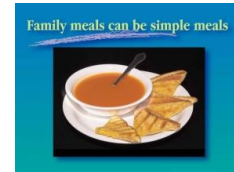
They were also confused about a slide showing a woman cooking with captions referencing cooking skills and time as barriers.

- if she is too busy to cook why is she cooking?
- the obstacles of time and money are difficult to overcome

Perceptions about slides related to meals and implementing family meals

Four slides addressed family meal characteristics.

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. 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 the 3 slides below indicated improvement would be warranted.



- Asking your family what food they want... they will answer crap food
- I think simple is fine, but often the simple boxed meals are really not healthy and full of junk food
- The high sodium level in the tomato soup is a deterrent to me fixing soup as a quick meal
- shopping is usually the most stressful time for me.

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. This rating strategy indicated more than twice as much attention was directed to the pizza slice as to the key introductory message (28% vs 11%).



End of Survey Comments

At survey closure respondents were invited to provide additional comments. 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
- Just this evening... I made dinner and we took our plates and sat out on the porch to eat. It was a change of pace and opened the kids up to discussions about things going on in their lives

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

Evaluation Summary

Results indicated that although the program was well received, revisions to six of the slides and an addition of slides focusing on ways to enhance eating together as a family, would enhance the salience and interest level of the target audience. Suggested improvements were to increase focus on benefits of and barriers to family meals, and making family meals more enjoyable.

EVALUATION STAGE 2

Background

Six *Worth It* slides were revised based on Stage 1 evaluation findings. Stage 2 is an evaluation of the revised *Worth It* program.

Evaluation of Revised Slides

Revisions were made to the original program based on Stage 1 evaluation. Revised slide evaluation was conducted with a sample that had been recruited for assessment of another ne/Frames program. This program *Everyone Needs Folic Acid* was evaluated using the same recruitment strategy as the original *Worth It* program. As part of that evaluation, respondents were asked to evaluate the revised *Worth It* slides.

Recruitment: Facebook Ad

Using a format similar to Stage 1 recruitment, a Facebook ad for an evaluation of the *Everyone Needs Folic Acid* program was targeted to persons between the ages of 18 and 55 years inclusive, who lived in Pennsylvania, speak English and who noted "like" on their Facebook page that included any of the following key words or phrases used in Stage 1 recruitment. Data were screened for duplicate computer IP and email address.

Facebook estimated reach potential of *Folic Acid* ad to be 201,380. 795 clicked on the ad; 14% (n=110) initiated the survey. Complete *Worth It* evaluations were received by 67% of unique respondents who started the survey (n=73).

Data Collection: Qualtrics Pro

Data were collected over 17 days using a Qualtrics based online survey (Provo, UT) hosted on a Pennsylvania State University server. Revised slides were evaluated with survey items similar to those used in the original study (Stage 1). Of the original 73 respondents who completed the *Folic Acid* study, 70 (96%) participated in the *Worth It* follow-up evaluation.

Results

Demographics

The follow-up sample demographics were very similar to the original sample demographics. The majority of respondents were White with some post-secondary education (80%), were either overweight or obese (43%) and only 27% were eating competent. 53% of the households had 2 or more children under the age of 18, and SNAP (28%) and medical assistance benefits (23%) were the most frequently used assistance programs in the past year.







Low-income status, defined as any program use OR reporting sometimes, often or always worrying about money for food, was applied to definition 71% (n=55) of the sample. Post-secondary education of the low-income participants was reported for 75% and 64% were overweight or obese. Only 31% were

eating competent. Half of the households had 2 or more children under the age of 18. The most frequently utilized assistance programs were SNAP (40%) and medical assistance benefits (33%). Additional demographic details are available in Table 4, at the end of this document.

Perceptions about slides related to meals and implementing family meals

Respondents compared 3 original slides with a paired revised slide about family meal characteristics and were asked to choose the slide they liked the most (Table 5). The original 'Family meals can be simple meals' slide was preferred over the revised slide, and the revised 'What makes family meals fun' and 'Families can enjoy precious time planning, shopping, and cooking together' slides were preferred over the originals.

Table 5. Preference Selection of Original versus Revised Slides Related to Implementing Family Meals

Original Slide	Respondents Preference	Revised Slide
	Respondents preferred the <u>original slide</u> (54%) over the revised slide (47%)	
	Respondents preferred the <u>revised slide</u> (61%) over the original slide (39%)	
	Respondents preferred the <u>revised slide</u> (58%) over the original slide (42%)	

Family Meal

The family meal slide was modified to remove the pizza graphic and reposition the introductory message. The “Hot Spot” rating strategy identified that these revisions increased attention on the introductory message (35% vs 11%) and retained attention on the people eating together at the table (42% vs 25% originally).



What gets in the way of family meals?

Two revised slides about what gets in the way of family meals were presented and respondents were asked to comment on their thoughts about the slides.



Overall, respondents related to the slide concepts

- Both are accurate on the thoughts that cross my mind
- Both slides represent my lifestyle – too tired, don't know what to cook, not enough money, not much food at home, etc.
- Just include both slides in your presentation
- I am often frustrated by eating and deciding what foods to eat or cook
- Slides are very eye-catching and nicely put together and
- I have no ideas for the 2 slides because they are all the reasons I would have given”.

Some respondents indicated a mixed reaction “I like [both] slides but the [last] slide indicates a lot of pure laziness”, “the second is better and relates to me”, and “Family focused on tv and video games is a bit random. The second slide only showing a single woman but talking about family meals is a bit incongruous”.

Evaluation of Added Slides

In response to requests for ideas on ways to enhance eating together as a family, two new slides were tested with a Stage 2 *Folic Acid* follow-up sample (n=72). 79% (n=57) responded to an email invitation to participate and 69% (n=50) completed the 2 *Worth It* slide evaluations.

Respondents were presented with 2 new slides and asked about their thoughts for each slide.

New slide 1



For Slide 1 positive comments centered on the family photo and that it was simple, shows an easy meal, and was visually appealing:

- I like how it shows a complete family
- I like that it is simple and I like that it shows a simple easy to prepare meal
- Looks like a lovely family meal, nothing too fancy. Makes you feel like everyone can do this

Some respondents made suggestions for improvements:

- Remove the word “just” from the caption
- I don't like the wording just
- Change the wording to “Set aside 3 or 4 nights a week for family meals” or “plan meals in advance”.

New Slide 2



Slide 2 positive comments centered on involvement of kids. Respondents appreciated the message of teaching kids while having family time.

- Love the message
- A great way to promote family time
- Brilliant idea since participation works on so many levels with young children
- I like the chaos, it is typical of a normal family

A few respondents indicated that the message was good but the picture could use some changes:

- the kitchen looks cluttered
- No one looks happy
- Picture is too busy and font and design are dated

The overall response to the 2 new slides is positive and inclusion in the program is warranted.

Summary

Revisions were made to the slides as appropriate based on respondent comments, evaluation, and research team discussions. Table 6 (next page) exhibits the modifications, rationale and decision for the revised slides. The revised program reflects these changes

Conclusions

Eating Together as a Family is Worth It, offered using a digital photo frame platform has been evaluated by the target audience and shown to be useful, informative, valuable and of interest to the target audience. Assessment of the program which was revised according to participant input demonstrated that respondents valued the information. A 2-stage evaluation demonstrates revisions to 5 of the original slides and addition of 2 new slides, to increase comprehension, usefulness and interest for low-income adults. These revisions have been made and are included in the posted program which is available to view or download online at the NEEDs Center website at <http://www.needscenter.org/projects/neframes/#worthit> .

A manuscript related to this report is published in the *Journal of Medical Internal Research: Research Protocols*. Access at: <http://www.researchprotocols.org/2013/2/e27/>

Table 6. Ipsative Approach to slide Revisions













Original Slide	Rationale/Decision	Revised Slide
	Revised slide was preferred over the original slide. Keep revised slide	
	Revised slide was preferred over the original slide. Keep revised slide.	
	Revised slide was preferred over the original slide. Keep revised slide.	
	Revised slide was preferred over the original slide. Keep revised slide.	
	Participants preferred original slide. Keep original slide.	
	Revised slide was preferred over the original slide. Keep revised slide.	

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

		Completers (n=47)	Attriters (n=16)	Program Assistance (n=23)	Eating Competent (n=20)	Not Eating Competent (n=30)
Mean Age y (SD)		35.4 (9.4)	36.4 (10.0)	32.8 (7.7)	35.3 (10.2)	34.2 (8.6)
BMI	Underweight	2	N/A	4	5	10
	Normal	23	4	26	20	20
	Overweight	36	23	22	65	23
	Obese	36	12	35	10	47
Assistance Program Use	Supplemental Nutrition Assistance Program	23	17	57	5	37
	Women, Infants, and Children	19	42	61	10	37
	Cash Assistance Benefits	2	N/A	4	0	3
	Temporary Assistance for Needy Families	2	N/A	4	0	3
	Medical Assistance Benefits	28	8	61	10	30
	Medicaid	13	17	35	0	27
	Medicare Part D-Prescription Drug Coverage	9	N/A	17	0	13
	Low Income Home Energy Assistance Program	9	N/A	17	0	10
	Expanded Food and Nutrition Program	2	N/A	4	0	3

		Completers (n=47)	Attriters (n=16)	Program Assistance (n=23)	Eating Competent (n=20)	Not Eating Competent (n=30)
	Food Bank or Food Pantry	13	25	39	0	27
Education	Less than high school	2	N/A	5	0	0
	High School Graduate or GED	17	20	19	15	18
	Some college or 2-year degree	28	30	29	15	39
	4-year college degree	26	50	24	40	25
	Post-graduate college	27	N/A	24	30	18
Number of children per household	1 child	37	33	27	27	43
	2 children	50	22	33	73	38
	3 or more children	13	33	40	--	19
Eating Competence	Not Eating Competent	55	80	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 Attriters

^c Table entries are percent with exception of Row 1

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Table 4. *Worth It* Stage 2 Evaluation Demographics^{a, b}

		Completers (n=73)	Attriters (n=4)	Program Assistance (n=32)	Eating Competent (n=29)	Not Eating Competent (n=48)
Mean Age y (SD)		36.7 (12.0)	24.7 (1.3)	35.4 (11.4)	35.3 (10.2)	39.9 (11.9)
BMI	Underweight	1	N/A	0	3	0
	Normal	34	75	41	43	29
	Overweight	20	25	9	10	25
	Obese	45	N/A	47	37	43
Assistance Program Use	Supplemental Nutrition Assistance Program	27	50	69	31	27
	Women, Infants, and Children	19	50	50	28	16
	Cash Assistance Benefits	8	25	22	14	6
	Temporary Assistance for Needy Families	7	N/A	16	10	4
	Medical Assistance Benefits	22	50	56	24	23
	Medicaid	11	25	28	17	8
	Medicare Part D-Prescription Drug	7	25	19	7	8
	Low Income Home Energy Assistance Program	16	25	41	17	16
	Expanded Food and Nutrition Program	3	N/A	6	7	0
	Food Bank or Food Pantry	11	25	28	17	8

		Completers (n=73)	Attriters (n=4)	Program Assistance (n=32)	Eating Competent (n=29)	Not Eating Competent (n=48)
Education	Less than high school	0	0	0	0	0
	High School Graduate or GED	20	25	28	10	27
	Some college or 2-year degree	51	25	59	66	41
	4-year college degree	20	50	6	14	27
	Post-graduate college	8	N/A	6	10	6
Number of children per household	1 child	39	67	47	43	40
	2 children	32	33	26	21	40
	3 or more children	22	N/A	22	29	15
Eating Competence	Not eating Competent	62	60	63	N/A	N/A

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

^b Table entries are percent with exception of Row 1

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