

Using metaphorical techniques in focus groups to uncover mothers' feelings about family meals*

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Received May 29, 2009; Revised August 13, 2009; Accepted August 19, 2009

Abstract

Traditional nutrition education has not been shown to consistently produce behavior change. While it has been suggested that using emotion-based messages may be a better way to influence nutrition behavior change, this has not been well tested. Producing emotion-based messages is a multi-step process that begins with exploring subconscious barriers to behavior change rather than the more obvious and typically reported barriers. The purpose of this research was to uncover the emotional reasons, sometimes referred to as emotional pulse points, for mothers' choosing or not choosing to have more family meals. This would then serve as the first step to developing emotion-based messages promoting the benefits of family meals. Five focus group interviews were conducted with 51 low-income Black (n=28) and white (n=23) mothers. Metaphorical techniques were used to determine underlying feelings toward family and family meals. Discussions were video-taped, transcribed, and manually analyzed using a content-driven, immersion/crystallization approach to qualitative data analysis. Four themes emerged around the definition of family: acceptance, sharing, chaos, and protective/loyal. Some mothers felt mealtime was merely obligatory, and described it as stressful. Some reported a preference for attending to their own needs instead of sitting down with their children, while others felt that mealtime should be used to interact with and educate children and felt guilty when they were not able to provide family meals. Three themes emerged around feelings towards having or not having family meals: unimportant, important, and guilty. When explored further, mothers indicated that using the feeling of guilt to encourage family meals might be effective. Data obtained are being used to develop innovative, emotion-based messages that will be tested for effectiveness in promoting family meals.

Key Words: Family meals, emotional-messaging, metaphorical techniques

Introduction

Numerous causes of being overweight in children have been well documented (Anderson & Butcher, 2006). One contributing factor that has gained attention in recent years is decreased frequency of family meals (Gable *et al.*, 2007). Eating meals together is one aspect of family life that has been shown to benefit young people (Eisenberg *et al.*, 2004). Family meals offer routine and consistency (Wolin & Bennett, 1984), as well as provide an opportunity to teach children about manners, nutrition, and healthy eating habits (Gillman *et al.*, 2000).

In the United States, federal, state and local governments offer many nutrition education programs and educational materials pertaining to family meals that are often geared toward people with low incomes and their children. Cooperative Extension in each state teaches their program participants skills needed to enhance family meals (Mississippi State University Extension

Service, 2006) and provides newsletters with tips for quality family meals (Iowa State University, 2003). The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) also provides low-income mothers with information regarding the benefits of family meals (WIC Learning Center, 2007). Though an abundance of traditional educational materials promoting family meals is readily available to the populations these agencies serve, most of it is factual information, the weakest form of persuasion. The impact of this education on behavior change is rarely evaluated and the effectiveness of traditional nutrition education based solely on logic and fact has also been questioned. Other approaches need trial and evaluation.

One such approach that has not been tested in nutrition education to promote family meals is emotion-based messaging. Emotion-based messages in advertising and marketing are designed to evoke an emotional response in an individual to promote the purchase of a product or service, or a change in

* This study was funded with a grant from the University of Delaware Cooperative Extension Competitive Grants program.

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behavior. In a 2000 study by Biener, *et al.*, the thematic content of a message, or advertisement, *and* its emotional content were found to be equally important in the development of a message. It has been stated that if an idea does not have emotional significance for us, we are not likely to store it and be able to recall it at a later time (Zaltman, 2003). Social marketing campaigns promoting physical activity (Peterson *et al.*, 2005), breast self-examinations (Prentice-Dunn, *et al.*, 2001), the serious consequences of smoking (Farrelly *et al.*, 2002), awareness of the dangers of second-hand smoke (King, *et al.*, 2003), breastfeeding (Lindenberger & Bryant, 2000), and macro- and micro-nutrient intake (de Pee *et al.*, 1998; Verrall, *et al.*, 2006) have also experienced success utilizing messages combining emotional content with a brief factual message.

Uncovering underlying emotions or feelings related to nutrition behaviors is not something that is usually done in traditional types of quantitative research. For example, the barriers to family meals have been reported to be such things as the family being too busy to get together more often, long commutes, conflicting schedules of the family members, lack of desire to eat together, and television watching (The National Center on Addiction and Substance Abuse at Columbia University (CASA), 2006). These reasons, typically provided by way of a survey, may be considered only “surface” reasons for choosing not to participate in family meals. Targeting them rather than the underlying emotional reasons for choosing not to have more family meals may be one reason for a lack of success in changing this behavior with typical nutrition education methods.

The purpose of this research was to uncover the emotional reasons, sometimes referred to as emotional pulse points, lying beneath “surface” reasons for mothers’ choosing or not choosing to have more family meals. This would then serve as the first step to developing emotion-based messages promoting the benefits of family meals.

Subjects and Methods

Focus groups were conducted with low-income mothers, using innovative methodologies such as metaphorical techniques to reveal their thoughts and feelings towards family meals. Metaphorical techniques are methods used to explore an abstract concept, such as a brand’s image or life experience, in terms of a more concrete concept, such as a photograph of a specific object or scene (Bystedt *et al.*, 2003). Examples of metaphorical techniques include having subjects quickly select from a variety of photographs one that represents how they feel about a particular subject, or naming the top three words that come to mind when one thinks of a particular subject.

Study population and setting

Purposive sample selection from mothers who participate in

Cooperative Extension’s Expanded Food and Nutrition Education Program (EFNEP) and WIC was used in this study. Selection was on a volunteer basis. As a focus group is typically composed of six to twelve participants (Johnson & Christensen, 2004), 12 women were asked to participate in each focus group session to ensure a desired minimum of eight participants.

Mothers were the target as they are ultimately more likely to positively respond to emotion-based messages (King *et al.*, 2003). In addition, they continue to take on the major responsibility for meals (Larson, 2006). Therefore, only mothers who were independently the head of their household (for example, not living with another woman like a mother or grandmother who may provide meals), and at least 18 years of age, were asked to participate.

White and Black mothers were asked to participate in the study because 1.) These two racial groups make up EFNEP’s and WIC’s target audience, and 2.) The 2003 National Survey of Children’s Health has shown that Hispanic adolescents ages 12 to 17 are more likely than non-Hispanic white and non-Hispanic black adolescents to eat meals 6 to 7 days a week together with their families (Child Trends Databank, 2003). The women were divided by race because it helps to facilitate conversation during the interviews (Winkleby *et al.*, 1997).

All mothers were required to have household incomes at or below 180% of the poverty line, as these households make up EFNEP’s and WIC’s target audience. Many of these households can be located in New Castle and Sussex Counties in Delaware, so all focus group interviews took place in these two geographic areas. EFNEP employees in these two counties were asked to distribute fliers advertising the need for participants, as well as contact directors of local community centers for assistance in recruiting participants.

Focus group interview guide

An interview guide was developed and pilot tested on a group of 12 mothers. Only minor changes to the interview guide were needed for question clarity. Content validation of the guide was carried out by an expert review panel consisting of Cooperative Extension professionals, university faculty in nutrition and health promotion, and a nationally-known expert on emotion-based messaging. The guide contained open-ended questions with questions 1 and 2 involving metaphorical technique activities (Fig. 1).

For the first question, the mothers were asked to select a photograph that defined the essence of family to them from an assortment of photographs (58 in our case) randomly chosen by the researchers. These photographs were composed of a variety of objects or scenes and included such things as animals, buildings, nature scenes, landmarks, etc. The women were given 30 seconds to select a photograph. (This metaphorical technique does not require a specific number of pictures, or prescribed types and amounts, but rather a diversity of subject matter and enough

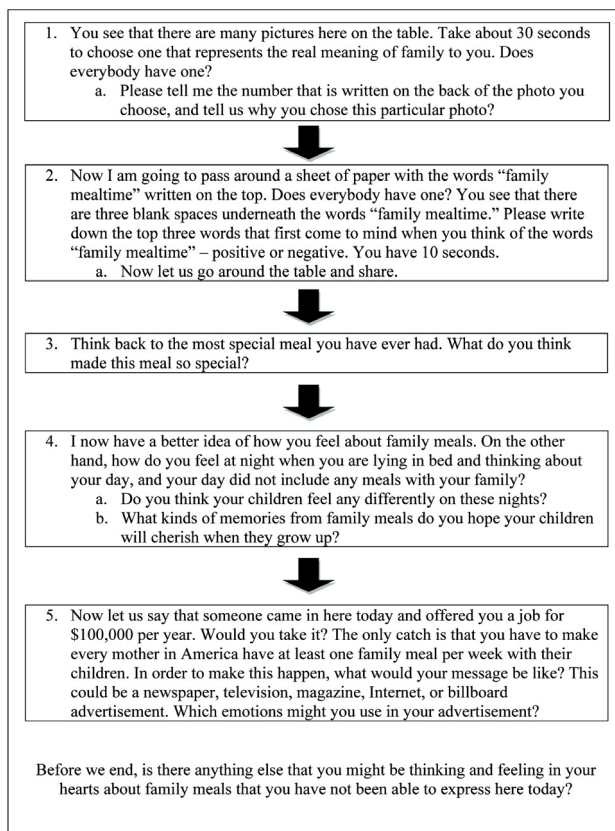


Fig. 1. Focus Group Interview Guide

pictures so that participants have a variety from which to choose. It's suggested that human images are avoided to encourage participants to think more deeply about how a certain object or scene brings to mind associations that can define family. The time limit is to encourage an emotional choice).

In the second question, the mothers were then asked to list and explain the top three words that came to mind when they thought of the words "family meals." The remaining four questions asked used guided imagery to get participants to reflect on and express their thoughts about family meals.

Procedures

All participants were asked to complete a brief demographic questionnaire, sign a consent form, and help themselves to light refreshments before the interview began. The moderator began with an introduction and then proceeded to follow the interview guide. Each interview lasted 60 to 90 minutes, and each was video-recorded and audio-taped. Two assistants were used to help with the equipment and child care. Child care services, as well as \$50 gift cards, were used as incentives to participate in order to better guarantee attendance of the focus group interviews. This study was approved by our university Human Subjects Review Board.

Data analysis

Video and audio recordings of the focus group interviews were transcribed verbatim and the transcriptions were used to analyze the data (Krueger, 1998). A content-driven, immersion/crystallization approach to qualitative data analysis was used to analyze the transcripts (Crabtree & Miller, 1999). This approach involves careful reading of the transcripts and inductively trying to discover new codes rather than searching for themes determined before the study began. This prevents the researcher from applying preconceived ideas to the data during analysis. Analysis involved looking for themes among the codes within questions and then across questions (Krueger, 1998). Researchers first immerse themselves in examining the data, and then defer the immersion process in order to identify and discuss patterns or themes noticed during the immersion process (crystallization). A second reviewer analyzed the themes for inter-judge reliability. A 90% consensus on the themes was attained.

Data from the pilot focus group were included in the analysis as only very minor changes were made to the pilot interview guide when designing the final interview guide. In addition, it was determined that the findings from the pilot focus group did not differ from findings in the other groups enough to warrant excluding them.

Results

A total of 51 mothers between the ages of 18 and 52 participated in five focus group interviews. Demographic information is presented in Table 1.

Table 1. Demographic Information of Focus Group Participants

Focus Group	Pilot	#1	#2	#3	#4
# of Participants	10	9	12	10	10
Characteristic					
		N =			
Race					
Black	6	0	12	0	10
White	4	9	0	10	0
Age (years)					
<21	0	0	4	0	0
21 - 29	3	7	5	2	2
30 - 39	4	0	1	8	8
40 - 49	3	1	2	0	0
>50	0	1	0	0	0
Shares home with other adults?					
No others	8	4	5	2	6
Husband	2	1	1	2	0
Boyfriend / Fiancé	0	2	2	3	1
Other Family	0	2	4	3	3
No. of children (mean)	4	2	2	3	3
Age range of children	1 year to 21 years	4 months to 34 years	3 months to 17 years	9 months to 24 years	6 months to 14 years

Findings on participants' feelings regarding family and family meals

Defining family

Four themes emerged from the discussion during the photograph selection activity. These were "acceptance," "sharing," "chaos," and "protective and loyal." Acceptance describes the willingness of both white and Black women to accept people who are not their biological relatives (e.g. foster children, neighbors, and friends) into their families, as well as the treatment of extended family.

Sharing was used repeatedly in all of the focus groups to describe family. Sharing to these women meant sharing a number of things, such as both good and bad day-to-day life experiences, decision making, traditions, holidays, vacations, and festivities, like birthdays.

Some women, both white and Black, thought of chaos when they thought of their families, but that a chaotic environment was exciting nonetheless.

The themes "protective" and "loyal" emerged in the Black focus groups. These women also spoke more about sharing work to achieve goals as a family. The following are direct quotations from participants exemplifying the various themes:

Okay, my name is _____ and I chose a picture I would say of a mother lion and a cub. And being that I'm raising my Godson, he needs the eye-to-eye contact and the love and understanding a mother is supposed to give, but they're not always there. So sometimes an outsider has to step up to bat. An outsider has to step up to bat because we're not related to the child, but we're raising him, trying to bring him up in the right manner.

My name is ____ and I picked a picture of a Hawaiian vacation because it reminds me of my family. It's chaotic. It's noisy. It's musical. It's fun. It's togetherness... So that's what it reminds me of. The drums and the noise; it all comes together to make unity.

I picked this picture of bees. And it reminds me of a whole bunch of my family. Like we all work together for one purpose and one common goal for everything, so it takes everybody to do their one little part to put the pieces to the puzzle together. So this reminds me of my family.

I chose this one (photo of a carnival) because every year we go [to a carnival]. On nights like this we have a name for it. It's called "family fun night." And my kids enjoy it. We share the fun.

Describing family mealtime and common drivers of behaviors.

When asked to describe their specific feelings towards family meals, as well as common drivers of behaviors among the women in choosing or not choosing to have family meals, the four themes

of "stress," "mother's needs taking priority," "interaction with family" and "food" emerged across all groups regardless of the race of the mothers.

Stress described family meals to many women across all groups. Mothers who do not like to cook or clean up after a meal often equated stress with family meals. Typical adjectives that first came to these women's minds when asked how they felt about family meals were "messy" and "chaotic." They may not prepare family meals because they cannot afford what society perceives as proper foods for a family meal. Having to choose what foods to serve at a meal was also stressful to some women, so the children were often permitted to choose what to eat at meals.

Other deterrents to offering family meals included lack of confidence in their cooking abilities and family members complaining about the food. Mothers mentioned that it is stressful to get family members together to eat, either because the children do not want to or everyone is very busy with activities, especially older children.

Some mothers stated that they have other things to do besides dining with their families. Some eat while cooking, and choose not to sit down and eat. Others prefer to clean up, rest, watch TV, perform other necessary household chores, or generally attend to their own needs while their families are eating.

Some mothers treat family meals as a time to communicate with their families about daily activities and both good and bad times in their lives. They also use family mealtime as a time to educate their children on cooking and nutrition, as well as to "pass down" family values, traditions, and manners. Other mothers associated family mealtime primarily with eating and food. A sample of direct participant descriptors is shown below:

I got what everybody else says: "food," "yelling," and "at the table." I always got kids at my house. I always have at least six kids everyday in my house while we're eating.

[I chose] "mess," "snacks," and "talking." My kids would rather eat snacks than eat their food... [to allow them to eat snacks] prevents the arguing.

[I say] go ahead in there and make a grilled cheese or peanut butter and jelly sandwich and leave me alone - I'm trying to get some rest.

...I take my food and go downstairs in front of Lifetime. They [the child's father and child] sit in the kitchen and eat.

I chose "togetherness," "news time," and "nutrition awareness." The "togetherness," because it's the time in our house when everybody must come to the table all at the same time. "News time," because anything that's going wrong that day - or anything that's going right - it's a time for us to come together and share each other's troubles or blessings. And "nutrition awareness," because in our house, it's always been a big thing - with so much illness in our family - to be aware of what it is that we eat and how it affects our bodies.

Having versus not having family meals.

The mothers were asked about their feelings towards having and not having family meals. The themes of "unimportant," "important" and "guilty" emerged.

Some mothers did not feel that a family meal is a priority to them. Some of these women viewed family meals as obligatory - a time to feed the family only, or their children expected it from them daily. Family members filling their plates with food and "going their separate ways" was a common trend and acceptable to some mothers. Others felt that they had too few people to cook for, so it would simply be a waste of time.

Holidays and festivities, namely barbecues and family reunions, are times that came to mind when some women thought about their family meals. These women never really discussed the significance of regular family meals. When the topic of bonding around family meals was mentioned, some mothers would say that bonding in their homes does not always take place around family meals.

Some mothers were adamant about including a meal in their family's daily routine that their children could grow to expect and enjoy. Some felt that it was fun for the children, and hoped that their children would cherish memories of their family coming together for a meal. Others felt it was important to participate in family meals as they appreciated it when their parents did. Some women expressed the importance of knowing what their children were doing, and "keeping them out of trouble."

The theme of guilt emerged describing how some mothers felt about not having family meals. Some mothers disliked not being able to provide family meals as they felt they were "missing out." Others, because they were raised in homes where a mother always provided family meals, felt that they are unable to live up to those standards for various reasons, but lack of time was a common explanation.

The following participant quotes exemplify their thoughts on the theme of having versus not having family meals:

...Whether I sit there or not. Whether it was bought or not, because I don't cook. My kids get a lot of subs, fast food, and they're - we're - all a little chunky, and we're fine with that. We eat a lot of fast food. We appreciate the fact that you never went hungry, that you had a meal whether it was bought from the store, out the microwave, every day you had a meal, so appreciate that. I hope they always remembered you never starved; you probably ate more than you should have!

I choose to, when we're eating meals, to turn the TV off and not answer the telephone. And if the telephone is answered, when one of my kids get it, I say it's dinnertime. That's family time. It's time for us to communicate and talk to each other. That's like, I won't allow anyone to interrupt that special time, so you have to take away all the distractions and focus on your family during that mealtime.

...Sometimes I feel lesser than a mom. But, you know, as long

as they get something to eat, you know, my mother never missed a meal. We always sat down to eat. There was always something on the table. I can't live up to that standard.

Time and location of family meals.

Throughout the focus group interviews, mothers talked about time of day and location of typical family meals, as well as their ideal time and location for family meals. Breakfast was typically "on-the-go" for many families. Some women talked about being able to have breakfast together on the weekends. For the mothers working non-traditional hours, breakfast or lunch was their family meal, depending on when they had to report to work. Dinner was the most popular meal for the family to come together, and some mothers had a nightly routine of providing a meal where everyone is to report to the dinner table at the same time every evening. Home was the most frequently cited location for a meal. Fast food restaurants and buffets were also discussed as locations for family meals.

A theme for an ideal time and location for a family meal did not become apparent. In general, the mothers who prioritized family meals were appreciative of having either breakfast, lunch, or dinner with their families. The Black groups frequently referred to "Sunday dinner" as a popular time for a family meal. Examples of participants' thoughts are quoted below:

Every night [I eat a meal with my family], and that is something that we make sure we do everyday. I might not eat breakfast or lunch with my family, but dinner is the one meal that we eat every night together.

...You have to have communication with your kids. And when my kids were growing up, that was our time, it was dinner. Or on weekends, it was breakfast. And, you know, we talked about school, we talked about what they wanted to be when they grew up.

Feedback on creating an advertisement to promote family meals.

The moms were given time to reflect on how they would encourage other mothers to have at least one family meal per week with their children. Two major themes emerged from this activity. The first was "appeal to diverse audiences." The women expressed that many different kinds of people are raising children - single mothers, single fathers, working parents, stay-at home moms, homosexual couples and parents of many different ages. They suggested having three different advertisements that would run simultaneously to target a variety of families - no one size fits all!

The second theme that emerged was "negative emotions." These women felt that instilling feelings of guilt and fear in moms like them would be a good way to make them take notice of the importance of family meals. They felt that you would have to push reality like the anti-drug advertising did in order to be

effective. Some of the tag lines they suggested were:

...*Do you know what your kids are doing right now?*

...*It's a shame not to eat together*

...*Do you take the time for a family meal?*

...*Life is too short to miss meals with your kids*

...*Family meals - not just for holidays*

Some of the graphics suggested by the moms were a child looking sad and holding an empty plate saying "Mom, where are you?", or a mom at the table with no children there and wondering where they were. They also thought children trying to cook a meal by themselves in the kitchen might be effective or a child with his school bag by the table looking anxious to share his day over dinner, but no one to share it with at the table.

Discussion

Stress described family meals to many women across all groups, which is why many of these women choose not to have family meals. As in previous surveys (The National Center on Addiction and Substance Abuse at Columbia University (CASA), 2006), barriers to providing family meals contributing to the stress felt by our participants included late working hours, after-school activities of the children, conflicting schedules of the family members, lack of desire to eat together (primarily the children's lack of desire), and television watching. It is interesting to note that some of our white participants reported watching television instead of dining with their families, while some of our black participants reported watching TV while dining with their families as part of their daily routine. Similar to the findings of Neumark-Sztainer *et al.* (2003), our participants reported a decrease in the frequency of family meals as their children moved from middle school to high school.

However, unlike in the 2006 CASA survey or study by Neumark-Sztainer *et al.* (2003), the current study revealed many "beneath-the-surface" reasons for not choosing to have family meals. For instance, some mentioned that they cannot afford what society perceives as proper meals for a family, which some admitted left them feeling ashamed and bored with the food choices. These findings underscore the significance of incorporating metaphorical techniques in qualitative research using focus groups, alone or as a supplement to research using surveys, to reach the underlying feelings of participants. A woman from our study, for instance, may have felt ashamed to write "I don't provide meals because I cannot afford food" or "because I don't have my own home" to describe her barriers on a survey about providing family meals. It is much easier to check a box next to or write "conflicting schedules," for instance, as a reason for not having family meals. It is less shameful to offer a socially desirable reply like "because we don't have time" in a straightforward, question-and-answer style focus group interview rather than communicating "Our mealtime is chaotic

and usually family members are yelling at each other" via activities in focus groups employing metaphorical techniques.

A major finding from this study indicates that mothers who most often experienced family meals with their families during childhood tended to prioritize family meals the most, and often experienced guilt or a feeling of "missing out" when they were not able to have family meals. Also, the women who longed for the routine of family meals in childhood but did not have them also tended to prioritize family meals with their own children. It seemed innately important to these women to communicate and educate their children over a meal, as none of the women reported being familiar with the aforementioned research findings on the benefits of family meals. These mothers tended to speak more about proper nutrition than the mothers who felt family meals were unimportant. Still, other participants (both white and Black) equated family meals with special meals like barbeques and Thanksgiving, involving extended family. These women tended to not place any importance on more frequent family meals.

Shift work was common in all of the groups. Again, women who prioritized family meals made an effort to share breakfast, lunch, or dinner with their families. Even for the Black mothers who did not prioritize daily family meals, coming together for Sunday dinner was very common, and would often include the extended family or neighbors and friends.

When conducting these interviews, it became apparent that many of the women have a very realistic view towards life. However, they felt that many parents do not. For instance, it was mentioned that many parents do not face the reality of the consequences of their child's obesity, or not having family meals. When we asked their opinion on what might encourage parents to have more family meals, it came as a surprise that the women often commented that perhaps some parents need to "face reality," and felt that a message incorporating "guilt or fear might trigger something in these parents to change their behavior and choose to have family meal". In addition, some women thought that people may respond better to a message "pushing reality" because many people respond well to reality given the massive popularity of reality television and fearful, easy-to-recall anti-drug advertising.

Guilt in emotion-based messaging may work because the act of providing family meals is valued by many mothers, yet many are simply not doing it. Therefore, in using a negative emotion of guilt, this value is likely to surface especially if she feels she is not living up to the standards of a good mother and provider. She may be able to turn this negative feeling about her actions into a positive one (feeling successful as a mother) by making a positive impact on her children's lives via family meals.

Evoking feelings of fear and guilt in social marketing advertisements has been shown to be positively correlated with behavior change. King *et al.* (2003) reported that messages instilling guilt in smokers positively affected their knowledge of

the dangers of second-hand smoke and future intentions to protect others, especially children, from secondhand smoke. Exposure to the national "truth" campaign to decrease youth tobacco use was found to be associated with an increase in anti-tobacco attitudes and beliefs (Farrelly *et al.*, 2002). A well-known "truth" commercial known as "Body Bags" featured young people piling body bags outside of a tobacco company's headquarters, and using megaphones to broadcast that the bags represent the 1200 people killed daily by tobacco use.

Prentice-Dunn *et al.* (2001) found that women in their study were more likely to perform breast self-examinations after viewing threatening, fearful information about breast cancer, but only if this information was followed by coping information on how to control the sensed danger of the disease. Thus, the use of threatening information in a message can be effective so long as there is an instructional or educational message to accompany it. In the case of a guilt-evoking advertisement to promote family meals, an educational and instructional message would inform the viewer of how to rectify the perceived problem of not currently providing meals and spending meals with their families.

The mothers in this study felt that it would be necessary to include a small tagline that would make a mother experience a twinge of guilt and ultimately provide more family meals. The educational message accompanying the small tagline would come from published research studies. A series of advertisements featuring a variety of research findings is essential if the advertisement budget permits, as it was observed that the mothers were more emotionally affected by certain benefits to family meals and not by others.

In order to make a lasting impression on a larger number of mothers viewing the advertisement, and ultimately make family meals more appealing to them, it is not advised to solely promote better nutrition for their children as a reason to provide family meals in this population. In observing many of these women and listening to their comments, they have greater issues to face in their daily lives than offering balanced meals. Some of these included "keeping their children out of trouble" and "keeping them safe" which seemed to be real issues in their social circles or in their neighborhoods. They also want to be "good moms" and "do what's best" for their kids. Based on our findings, some suggested educational messages to promote family meals might be:

- a. "Family meals promote family interaction and a sense of unity. Share at least five meals a week - breakfast, lunch, or dinner - with your family."
- b. "Enjoying meals as a family is associated with less tobacco, alcohol, and marijuana use in adolescents. Share at least five meals a week - breakfast, lunch, or dinner - with your family."
- c. "Children who watch more television and eat fewer family meals may be more likely to become overweight. Share at least five meals a week - breakfast, lunch, or dinner - with your family."

- d. "Be a role model of good manners and healthful eating habits. Share at least five meals a week - breakfast, lunch, or dinner - with your family."

If the mothers are successfully affected by these messages and choose to provide more meals, the nutrition-based benefits associated with family meals will also presumably make a positive impact on the children. Nutrition-related benefits would not, however, be the primary motivator for the mother to begin to offer family meals.

Limitations of the study

Like all qualitative research studies using focus groups, the findings of this study may not represent the views of larger segments of the population. There is no hard-and-fast rule about how many focus groups are enough for any study; however, a typical number of groups is three to five if there is not a tremendous amount of diversity among the groups as was the case with our participants. The fact that the women were volunteers may limit the generalizability of this study's results to low-income populations of mothers. Although this information is not representative of all low-income mothers, many of the themes presented here held together across and within all of the focus group interviews suggesting theoretical saturation.

Implications for research and practice

Because people tend to make judgments and choices based on emotions more often than on logic and fact, emotion-based nutrition education messages may have a greater impact than traditional messages to promote family meals. The first step in developing an emotion-based nutrition education message is to explore the underlying feelings related to a behavior of interest, in this case family meals. The results of the present study suggest that incorporating metaphorical techniques in qualitative research using focus groups can be an effective way to reach the underlying feelings of participants towards a specific subject. These techniques were successful in uncovering mothers' feelings regarding their families and family meals, as well as their opinions on strategies for promoting family meals. The feelings that were uncovered about family meals provided us with the basis for the next step in the process of emotional message development, which is the actual message development that combines a targeted emotional pulse point with a limited amount of factual information to promote family meals. Once the message has been developed, it will be pilot tested for effectiveness with an audience of low-income mothers.

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