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Breaking the Ice: A Pre-intervention Strategy to Engage Research Participants

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While much thought is usually given to the design and objectives of health promotion interventions, how intervention sessions are started may be less well thought when conducting research. “Ice breakers” can be an effective method in research to begin a group intervention session and to engage participants in the objectives of the intervention. Ice breakers are used when a group comes together for a specific mutual purpose. They are helpful to encourage participants to bond, form a new team, get to know people from different backgrounds, and become involved with learning about new subject matter (Health Outreach Partners, 2011; Mind Tools, 2011). Ice breakers also help the leader become acquainted with the participants and group interpersonal interactions. Observed information on the group's dynamics can determine if modifications need to be made to the prepared lesson or lesson delivery. This article will describe the use of ice breakers in a study involving mothers of migrant farmworker children.

When designing health promotion lessons for an intervention, the needs of the adult learner and those of the community help guide the manner of effective transmission of health knowledge. Two educational models – adult learning and popular education – contribute to the use and style of ice breakers before research interventions. Adult learning theory states that adults attend supplemental seminars because they want to learn (Instructional Design, 2010; Knowles, 1984). They arrive to class with a variety of life experiences and are more content if the learning presented applies to their everyday lives (Cross, 1981). Adult parent learners are most interested in specific narrow topics of relevance, as opposed to learning material that has a broad and general range (Draves, 2007). Popular education has its origins in Latin America and rejects the premise that the transmission of education is analogous to filling up an empty vessel. While a controversial educator, Paulo Freire's (2007) pedagogy of popular education redefined the teacher, student and society relationship and identified the learner as a co-creator of the knowledge to be learned. His theories on popular education emphasized participation and reflection, are action oriented, and incorporate a variety of learner-centered activities. Together, these theories provide credence to the inclusion of opportunities for social support and interaction between class members.

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About the Study: Dietary Intake and Nutrition Education Study

The community-based study, Dietary Intake and Nutrition Education (DINE) Phase 3, took place in Midwest migrant camps with migrant farmworker mothers ($n = 34$) after work hours (Kilanowski, 2010). The DINE Phase 3 included three intervention sessions on healthy eating and physical activity. A comparison group of migrant farmworker mothers ($n = 25$) received standard Centers for Disease Control and Prevention low-literacy Spanish pamphlets on healthy eating. Survey data were collected on household food security, mothers' acculturation and self-efficacy, past food security, and mothers' fruit and vegetable intake, in addition to children's pre-intervention and post-summer food frequency and anthropometric measurements. Protection of human subjects was approved through a university institutional review board. Intervention sessions were begun with ice breakers that set the stage, for the content of class objectives.

Ice Breakers for Introductions and Assessment of Group Dynamics

One example of an ice breaker that was used in the first DINE health promotion class to establish a comfortable and friendly educational setting was the Cabbage Game (Health Outreach Partners, 2011). The "cabbage" was created before the class began. Green sheets of paper were cut into various sized ovals. On each leaf of the cabbage, a "get to know you" question or a health-related question was written in Spanish, the language choice of the migrant mothers. The smaller leaves were first crumpled and wrapped around a cabbage center. The cabbage became larger as each leaf with its inscribed question was added to the core. Care was taken to mold the ball to resemble a cabbage-shape with curled leaf edges.

The ice breaker began with instructions to the participants. The cabbage was thrown to a class member. She peeled off a leaf, read the question, and answered to the group. That mother then threw the cabbage to another person in the group. Since the families in the migrant camps are mostly strangers who travel from different part of the United States or Mexico for employment and do not otherwise know each other, this ice breaker gave mothers an opportunity to become introduced. The ice breaker also provided a chance for the research team to get acquainted with the mothers. In addition to introductions, this ice breaker helped the research team assess group interaction and identify more dominant or docile participants. This information allowed the team to capture the energy of the group and respond with appropriate modifications in the planned delivery style of the intervention.

Ice Breakers for Education

The ice breaker for the second session was more educational in nature and complemented class objectives. Published literature of parents' perceptions of their child's body shape has shown that Latino parents preferred larger body types or did not identify their child's actual overweight status as a problem (Towns & D'Auria, 2009). Latina mothers have also been reported to feel that the health of their children is determined by the children's level of happiness (Crawford et al., 2004) and if a child felt and looked "good," then moderate levels of overweight were not a source of concern (Hackie & Bowles, 2007; Meyers & Vargas, 2000). In fact, thinness was associated with poor health with diseases such as malnutrition and intestinal infections. Acculturation has been shown to have an effect on perceptions of healthy weight. In low-income mothers of Mexican birth or heritage, their perception of children's ideal body size was different for Latinas who lived in California who felt that children with less weight were reflective of better parenting and a healthier lifestyle (Guendelman, Fernald, Meufeld, & Fuentes-Afflick, 2010).

Large data set findings validate mothers' inability to accurately assess their child's unhealthy weight. Using the Third National Health and Nutrition Examination Survey a

sample of 5,500 children aged 2-to-11 years, demonstrated that 32% of mothers stated their overweight child was “about the right weight” (Maynard, Galuska, Blanck, & Serdula, 2003). International research examining mothers’ ability to accurately perceive their children’s weight showed that mothers consistently under-reported unhealthy weight (Jackson, McDonald, Mannix, Faga, & Firtko, 2006; Luttikhuis, Stolk, & Sauer, 2010; Manios, Kondaki, Kourlaba, Vasilopoulou, & Grammatikaki, 2008; Manios, Moschonis, Grammatikaki, Anastasiadou, & Liargkovinos, 2010; Molina, De Faria, Montero, & Cade, 2009; Wake, Canterford, & Williams, 2008; Warschburger & Kroller, 2009). Thus, mothers’ inability to accurately identify their children’s weight category is a national and international concern and must be considered in the design of healthy eating interventions.

The ice breaker for an educational intervention on food portions and labels used schematic drawings to depict a child’s actual and ideal body size, a strategy developed by Collins (1991) that has been used successfully with diverse groups (Guendelman, Fernald, Meufeld, & Fuentes-Afflick, 2010; Sherry et al., 2004). These pediatric drawings were modified from the Figure Rating Scale that consists of nine schematic silhouettes measuring body dissatisfaction with figures ranging from very thin to very obese (Stunkard, Sorensen, & Schulsinger, 1983). Further ethnic modifications were made by Killion and her team (2006) resulting in the creation of seven flashcards depicting Latino and African-American child-figure silhouettes. These cards illustrated children with body types ranging from very thin (body mass index [BMI] estimated at 13.9) to obese (BMI estimated at 18.4). The middle anchor child was estimated to have a BMI of 15.4. Attached to each silhouette card were the letters A (heaviest) to G (thinnest) that enabled parents to identify the chosen figure that matched their child’s appearance, to the researchers. In Killion’s study a mother’s perception of her child’s appearance was significantly different from the child’s actual body size calculated with anthropometric measurements for BMI.

The DINE ice breaker for the second health promotion class duplicated research by Grzywac (J. Grzywac, personal communication, January 21, 2010) who explored the dietary and activity patterns of Latino migrant farmworker children using a revised version of the silhouette cards where the letters were replaced with equal sized colored circles. We followed an interview script that asked migrant mothers a set of questions in Spanish about the silhouette cards. The migrant mothers responded to questions about the pictures, such as: How would you describe this child? What kind of things do you think this child’s mother feeds him/her? What kind of things does this child do to play?

The child with an average weight and BMI was labeled by the mothers as, “too skinny, thin,” and “ready to play” and the card with the child slightly bigger than average was said to be “more normal.” The heavy child was called, “overweight, pudgy,” was said to eat “too many sweets,” and that “his mother didn’t cook.” The drawings of children who were heavy and the heaviest were said to be “always watching television,” “ate too much grease and fat,” “had low self-esteem”, were “sad, sedentary.” The mothers continued saying, “the parents gave him lots to eat especially pizza and hamburgers,” and “he ate in bed.” When the question was asked which child was the healthiest of four silhouettes that included the thinnest, the heaviest, and two figures on either side of average; the child slightly bigger than average weight was clearly identified as being the healthiest. Healthy children were characterized as, “active, happy, plays a lot, asks questions, gets good grades in school, and eats a little of everything.” Continuing, the mothers clearly identified the thinnest silhouette as being the least healthy and characterized as “sad, crying, doesn’t play, and doesn’t do anything.” These same comments were made about the heaviest silhouette with the addition, “having diabetes.”

The ice breaker ended with the migrant mothers being asked what card matched the appearance of their own child. The silhouette card that most mothers said looked like their child was the one slightly thinner than the average child. Only one mother said her child looked like the card with the heaviest child. In each of the three intervention groups the mothers started laughing at each other; they told each other they picked the wrong matching card for their child. The mothers said the children were heavier in weight than the cards their own mothers selected. This second ice breaker provided a conduit into the objectives of the healthy eating class on portions and reading food labels. It gave the facilitator knowledge of mothers' perceptions of overweight children, and an understanding on choice of words and selection of messages that needed to be delivered within the structure of the intervention. Without this preliminary knowledge about mothers' perceptions of a healthy child's appearance, the subsequent intervention messages about healthy eating and activity may have been heard by unresponsive ears.

Suggestions for Designing Health Promotion Interventions

Considerations for the researcher who is designing health promotion interventions include knowing the audience. Whether the sample is adult parents or children, the project's intervention curriculum should consider the participants' developmental characteristics. Lesson plans and objectives are important for intervention organization and fidelity. However, ice breakers at the start of sessions contribute to the participant-teacher relationship and facilitate an understanding of group dynamics. Management of group dynamics can influence the success of the intervention and affect participant retention. Participants in intervention studies need to know they are welcomed and that the educational messages are important and applicable to their health and lifestyles. Participants may also be more engaged if the intervention is fun. Ice breakers that start each session can provide appropriate amusement and whimsy. Ice breakers may create a sense of unity in the intervention group with its participants all striving to achieve a common goal. While breaking the *ice*, ice breakers provide learning opportunities for both the participant, and the researcher.

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CALL OUT PHRASES

Ice breakers should be simple, appropriate and comfortable to the participants.

Adult parent learning should be active and participatory.

Management of the group dynamics can influence the success of the intervention and affect participant retention.