INFORMING PUBLIC HEALTH
RESEARCH BRIEF

KDH Research & Communication Number 8 :: October 2011

An Intergenerational Approach to Improve the Health Literacy Skills of Latino Families

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This research brief provides the evaluation results of a pilot version of the novel health program, En Familia (ENF). The program has two aims. First, through its use by community-based nonprofits, it aims to improve knowledge about key health topics and health literacy skills of Latino families in the United States (U.S). Second, by building knowledge about key health topics and health literacy skills in Latino families, it aims to reduce the health disparities that many Latino families face. To achieve these aims, ENF uses an intergenerational approach that draws on the concept of familism, or the exchange of social support among the generations of a family unit (Ruiz, 2007). In this regard, ENF encourages teens, their parents, and their grandparents to support each other in making healthy choices.

The ENF pilot program targets families that consist of a teenager aged 13 to 17, the parents of the teenager, and the grandparents of the teenager, or close family members of parent or grandparent age. Participation in ENF includes the family's attendance at four two-hour training sessions with participatory activities and generation-specific break-out discussions at a community-based nonprofit organization. In its pilot form, ENF's session topics include emotional health, physical health, healthcare navigation, and care and treatment. The training sessions are led by a facilitator at the nonprofit, who uses an ENF training guide to plan and execute the sessions and activities and guide the discussions. In its pilot form, the ENF training guide consists of background information on ENF, lesson plans and information to conduct the training sessions, and handouts and activity worksheets in Spanish and English. KDH Research & Communication developed the ENF program in 2010 and 2011 with funding from National Institute on Minority Health and Health Disparities. To our knowledge, ENF is currently the only program of its kind to use an intergenerational health programming approach to reduce Latino health disparities.

The need for effective health programming for Latino families is substantial. Not only do Latinos constitute the fastest growing demographic group in the U.S. (U.S. Census Bureau, 2011), but many Latinos also face significant health challenges. In fact, they bear a higher burden of disease than non -Hispanic whites in almost every risk category, including stroke, liver disease, and certain types of cancer (Centers for Disease Control and Prevention [CDC], 2004). Hispanics are also more likely than non-Hispanic whites to be overweight or obese and to fail to receive full vaccination or adequate prenatal care (ibid, 2004). What is more, Latinos face a disproportionate lack of access to health care that stems from limited health insurance, low English proficiency, lack of access to health information, a dearth of culturally competent health facilities, and fear and mistrust of the U.S. health delivery system (Elder, 2009).

Improving health literacy, or the ability to understand and act on health information (Center for Health Strategies, 2000), offers a means to minimize health disparities faced. The World Health Organization (WHO) defines health literacy as the "cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways, which promote and maintain good health (WHO, 2007)." Health literacy encompasses three skill sets: functional, or the ability to read, understand, and act on basic written medical

information; communicative, or the ability to read complex medical documents, identify the main point, and ask clarifying questions; and critical, or the ability to critically analyze medical information, weigh decisions, and self-advocate (Nutbeam, 2008, and Banister, Begoray, & Daly, 2011). Morever, self-efficacy, or confidence in one's ability to perform a behavior, constitutes an important component in the behavior change that accompany improvements in health literacy (Kickbusch, 2001).

Methodology

To test the pilot version of ENF, we used a pretest/post-test experimental group-only design. Our recruitment partner in El Paso, Texas, recruited eight families into the evaluation. Each family consisted of a teen, a parent, and a grandparent, or a close relative of parent or grandparent age. The families attended the four sessions and participated in related activities and break-out sessions during a four-week period in 2011. Of the 24 participants in the eight families, 23 completed both a pretest survey before the first ENF session and a post-test survey after the last session. We used the survey data to explore the following research questions:

- To what extent does participation in ENF increase knowledge about health topics?
- How does ENF affect participants' attitudes about health-related behaviors?
- To what extent does ENF change self-efficacy about and intentions to perform health-related behaviors?
- To what extent does participation in ENF change health literacy skills?
- To what extent do participants in ENF find it to be a satisfactory program?

To address these questions, we converted the raw survey data into a STATA file and ran a series of bivariate statistics. The low number of observations inhibited our ability to conduct a multivariate analysis. There are other limitations to the study. Indeed, the evaluation design lacked a control group, so we cannot attribute the effects of any changes from pretest to post-test solely to ENF. What is more, conducting the evaluation in one location with only Latinos of Mexican descent limits the generalizability of the findings to other locations and other Latino subgroups. Still, the evaluation represents the first systematic analysis of an intergenerational approach to address the health disparities faced by many Latino families.

Findings

The evaluation of ENF yields the following findings:

Knowledge: There was minimal statistically significant and positive change in knowledge from pretest to post-test. The limited change in knowledge appears to relate to the relatively high degree of knowledge on many health topics among teen, parent, and grandparent participants at pretest. Indeed, there was little room for improvement on knowledge between pretest and post-test. Still, the percentage of participants who correctly answered a question about patients' rights to request a different medicine increased by an insignificant 20 percent from pretest to post-test.

Attitudes: Similar to the minimal change in knowledge between pretest and post-test, there was generally little improvement in attitudes on health topics. Again, this finding relates to strong overall attitudes among teen, parent, and grandparent participants at pretest.

Self-efficacy and intentions: Unlike changes in knowledge and attitudes, participation in ENF positively correlated with increases on a number of measures of self-efficacy and intentions to perform health-related behaviors, though some were statistically insignificant, reflecting in part a low number of observations in the evaluation. For example, between pretest and post-test:

- The percentage of participants who are somewhat confident or very confident about talking about stress with their family members increased significantly
- Those who are very confident about using healthy ingredients in cooking increased significantly
- The percentage of participants who are very confident about asking for a translator and asking questions at the doctor's office increased significantly
- Participants' intention to very likely incorporate physical activity into their daily lives increased a substantial but statistically insignificant ($p< 0.10$) 20 percent
- Those who reported being very likely to choose healthy ingredients when preparing food increased by a statistically insignificant but still substantial 19 percent
- Participants' intention to very likely discuss their emotional health concerns with their close family members increased by 13 percent

Health Literacy: Overall, there were no significant changes in health literacy skills from pretest to post-test, though there were relative differences in health literacy skills building among teens, parents, and grandparents. However, because the evaluation has a limited number of participants, we cannot indicate confidently that the generational differences are statistically significant. Still, there are positive findings related to shifts in health literacy. For example, the rate of participants who correctly calculated the percent daily value of protein from a nutrition label increased by a non-statistically significant 14 percent.

Participant Satisfaction: Participants were widely satisfied with ENF. Indeed, 96 percent strongly agreed that ENF is interesting and engaging, while 78 percent strongly agreed that the information they learned from ENF is relevant to them and their families. A majority of participants (87 percent) strongly agreed that the information and skills they learned from ENF will help their families stay healthy. An indication of participant satisfaction was the high retention rate across all sessions. Three participants missed one session and only one participant missed two sessions.

Discussion

The findings suggest that ENF has several efficacious and feasible elements in its pilot form. For example, because self-efficacy and stated intentionality constitute important precursors to skills development and behavior change, participants' increases on key measures of self-efficacy and intentions to use health-related behaviors suggest that ENF shows promise as an effective program for them to build and use newfound skills to navigate health delivery systems and to make healthy choices. Moreover, that participants highly ranked their satisfaction with ENF may increase the likelihood of participant retention across the four sessions and related activities during ENF's implementation, which one may hypothesize will relate to greater program outcomes.

Still, as ENF evolves from its pilot form to one with full content and wide applicability, the findings suggest avenues for improvement. For example, though participants' knowledge and attitudes about key health topics were high at pretest, their health literacy skills were low, indicating that a revised version of ENF should focus more heavily on the development and practice of health literacy skills rather than the provision of health education. Moreover, health literacy skills require a level of numerical skill that may be lacking in the target audience, which indicates that ENF should incorporate basic math skills into activities.

In the end, any future evaluation of ENF must include a substantially wider pool of participants to overcome the lack of statistical power and surprisingly high degree of pre-intervention health knowledge and attitudes that characterized the participants in this evaluation.

Acknowledgements

This brief was supported by grant number 1R44MD002739-01A1 from the National Institute on Minority Health and Health Disparities. We extend our gratitude to La Fe in El Paso, Texas, for their assistance with recruitment and pilot implementation and to our consultants for sharing their knowledge and expertise with us.

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The views expressed here are those of the authors and do not necessarily reflect those of KDH Research & Communication, its board, or funders.