Community Health Fair to Assess Knowledge of Maternal and Child Health in an Underserved Population

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BACKGROUND

Approximately 26% of children in Charleston County live in poverty. This equates to a higher percentage of children living in poverty within this county compared to U.S. counties in the top 90th percentile (26% vs. 13%). Impoverished areas are more likely to be designated as medically underserved. Parents in underserved communities may require increased resources, including health education, preventative medical services, and parenting education to adequately care for their children. Our interdisciplinary team of Presidential Scholars worked with a community partner, Lowcountry Pregnancy Center in North Charleston, to increase awareness in areas associated with maternal and child health.

OBJECTIVE

To assess knowledge of maternal and child health before and after a community health fair.

MATERIALS & METHODS

Health Fair and Surveys

The health fair was held at the Lowcountry Pregnancy Center on Saturday, February 20, 2016. The team developed pre- and post-surveys to evaluate participants' knowledge in maternal and child health before and after the event. Participants visited several booths where they were asked how their baby should sleep, dental health, breastfeeding, their comfort levels regarding seeking help for depression, vaccinations, preparing healthy meals, planning an exercise routine, and installing their child's car seat.

Spanish translators were present to aid Spanish-speaking participants in translating the content of the health fair and answering the survey questions. The responses from the pre- and post-surveys were then evaluated as described below.

Data Analysis

Data from pre- and post-surveys were collected and managed using a REDCap (Research Electronic Data Capture) tool, a secure, web-based application. Two separate team members (EB and LJ) performed double data entry methods to ensure accuracy. SAS 9.4 was utilized to perform statistical analyses. Descriptive analyses were used to report demographic data. Wilcoxon-signed rank tests were used for all nonparametric data.

RESULTS

Data from 15 completed pre- and post-surveys were used for analysis. A majority of respondents were non-Hispanic (60%) or female (86.7%). Over half of the families (69.2%) reported an annual household income less than $15,000 (Table 1).

Table 1. Characteristics of health fair attendees

Demographics (n=15)	
Sex	n (%)*
Female	13 (86.7)
Male	2 (13.3)
Ethnicity	
Hispanic	6 (40.0)
Non-Hispanic	9 (60.0)
Age, years	
18-25	2 (13.3)
26-35	8 (53.3)
36-45	4 (26.7)
46+	1 (6.7)
Education	
< 4 years of college[a]	11 (78.6)
College degree and/or Graduate degree	3 (21.4)
Income	
$0-$14,999	9 (69.2)
$15,000-$29,999	4 (30.8)

[a] Includes those who did not complete high school, those who completed high school/GED, and those who have some college education
*All percentages are of those cases with non-missing values

Car Seat Installation

On the pre-survey, the majority of the participants indicated that they were comfortable installing their child's car seat while on the post-survey, all participants indicated that they were comfortable with car seat installation.

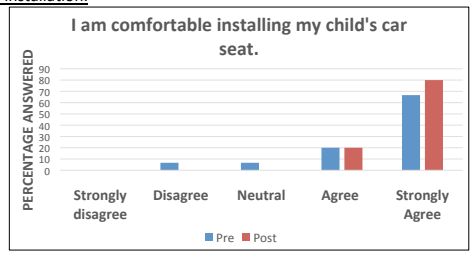

Figure 1. Participants were asked how comfortable they were installing their child's car seat before and after the health fair. Responses are shown (n=15).

Child Health

On the pre-surveys, the majority of attendees answered correctly with regard to the recommended age that their child should have their first dentist visit (66.7%) and that their baby should be on his or her back while sleeping (86.7%).

RESULTS cont'd

Child Health cont'd:

Conversely, approximately 33% of pre-survey respondents answered incorrectly about the recommended age for their child's first dental visit (Figure 1). Four (4) of the five (5) pre- surveys completed in Spanish were answered incorrectly with regard to the recommended age for a child to visit the dentist. However, after the health fair, all survey respondents answered correctly-- the recommended age of 12 months.

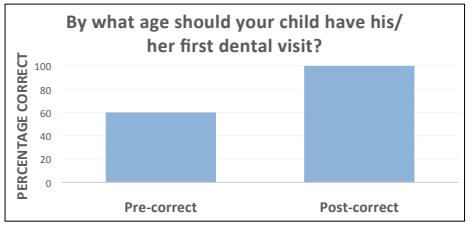

Figure 2. Participants were asked the recommended age by which their child should have their first dental visit. The percentage of participants that answered correctly both before and after the health fair is shown (pre-survey n=15, post-survey n=14).

CONCLUSIONS

The community health fair had an impact on knowledge regarding recommended dental practices. Community health fairs continue to be a collaborative approach to disseminating recommended health education. Future research should continue to promote a community-based participatory research method where individual community members are included throughout the entire research process.

RECOMMENDATIONS

1. Consult a statistician during planning of and after the health fair
2. Choose a centralized location to target more participants
3. Continue utilizing help of Spanish interpreters, doula and N. Charleston Fire Department to educate participants
4. Provide Spanish versions of all handouts and questionnaires
5. Include information regarding helping with homework for older children

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