

Developing a Health Promotion Program for Women in Rural Jamaica: How We Began and Implications for Practice

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Properly identifying areas of health promotion and health education needs is essential for providing the appropriate education for each population. Many developing countries are focusing on improving the health of their population. Although many countries are struggling with issues related to both communicable and non-communicable diseases, it is important to assess each country's specific needs. Furthermore, it is necessary to determine needs within a country based on demographics to include geographic areas, unique cultures, education, age, and gender. Promoting health and providing health education is crucial in improving the health and well-being of individuals throughout the world. Providing education concerning health promotion and disease as well as injury prevention can make remarkable differences in the health outcomes of individuals, families, and communities (Kirby, Obasi & Laris, 2006; Shi & Zhang, 2011; Zanchetta, Kolawole, Salami, Perreault, & Leite, 2012). Educating individuals on how to protect their health will prepare them to make informed choices and promote a healthier lifestyle. In global areas where access to healthcare is difficult due to costs, transportation, or geographic region, basic health education can provide information that may translate to health protection. Health education can allow individuals the ability to understand how to protect their own health and the health of family members.

It is easy for us as health care providers and scientists to believe we know what health promotion and health education should be for specific populations. We study health measures, disease statistics, and outcomes and think we have a good understanding of the community's needs.

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More important than general statistics and what we think is the communities perception of what they need and want to learn regarding their own personal, family, and community health. Keeping this in mind we have aimed to develop a health education program based on the community of interested feedback on what they want to learn more about and what health needs they wish to be addressed. Using this design could increase the success of this specific program and thereby increasing the success of health outcomes for these rural Jamaicans.

Purpose of this Project

To develop an effective health promotion and health education program by determining the self-perception of health status and health education needs of rural Jamaican women living in Jack's River.

Literature Review

Jamaica is a country located in the Non Latin Caribbean Pan American sub-region and is the largest English speaking island in that region. Approximately 48% of the population of more than 2.7 million live in a rural setting. Jamaica has been reclassified as a Lower Middle Income Economy with per-capita Gross National Income of 2,820 US dollars. As the economy experiences changes, so also the epidemiology of disease and injury in Jamaica changes. The Millennium Development Goals (MDG) identified three areas for improving the health of Jamaicans. These areas include reducing child mortality, improving maternal health, and decreasing the incidence and prevalence of malaria, HIV/AIDS, and other communicable and non-communicable diseases. Jamaica's Minister of Health reported in the 2009 National Report for the United Nations Economic and Social Council (ECOSOC) Annual Ministerial Review that significant progress has been made in these three categories. Although the improvement of these areas is to be applauded, the increased prevalence of noncommunicable diseases, which now account for more than 50% of fatal disease outcomes, is of concern (World Health Organization [WHO], 2012)

Poverty is more prevalent in rural areas where the economy mainly consists of industries such as agriculture, mining, and natural-resource-based tourism (WHO, 2012). This poverty may affect women living in rural Jamaica and their access to health education.

A lack of appropriate health education can negatively affect a woman's health behaviors and her perception of her own health status (Hosseinpour, et al., 2012; Iecovich & Cwikel, 2010). Health status as defined by Abel-Smith (1994) is the number of self-reported ailments, illnesses, dysfunctions, injuries, and physical discomforts that an individual experiences. As with women around the world, Jamaican women's health and perception of their health is a likely indicator of the health of families and communities.

The demographic characteristics of Jamaicans are diverse. Bourne (2009a) reports great disparity between Jamaican individuals who live in rural and urban settings. He describes those who live in rural areas as financially poor, and their health care seeking behaviors are influenced by non-traditional healers and home remedies. He reviewed a nationwide study to determine the relationship between subjective well-being and health seeking behavior. Findings revealed participants living in rural areas responded that their overall health status was poor (22.8%), compared with those living in other areas (10.2-10.8%) (Bourne, 2009a).

Bourne (2009b) also examined self-rated health status and health care seeking activities of a Jamaican population. A cross-sectional descriptive study of 1,006 participants responded to questions regarding health care seeking behaviors. The mean age of participants was 41.8 years ($SD = 27.6$), and the majority (59.5%) were female. Forty-four percent of the participants reported at least good health, while 97% responded that they have had some form of disease or illness. Six percent reported sustaining an injury due to accidents, while 11% reported that their self-reported illness has not been diagnosed by a health care practitioner. Bourne (2009b) reported that self-rated health status is a significant statistical predictor of self-reported dysfunction.

Bourne (2010) also examined self-rated health status and self-reported illness diagnosed among the educated and uneducated in Jamaica. Participants with higher education tended to have higher incomes, but there was no significant statistical difference between their self-rated health status and the less educated individuals. Bourne concluded that there is a need for health education for both the educated and less educated classes in Jamaica.

Evidence supports that self perception of health and health education needs affect Jamaican women's plans to seek health care services and that increased health education may positively affect health outcomes (Bourne, 2009a; Bourne & McGrowder, 2009). Gordon-Strachan, et al. (2010) found that many Jamaican women have difficulty accessing health care due to cost. Their study revealed that many of the women affected by cost of healthcare lived in rural areas and experienced chronic health issues. This study also found that these women were being diagnosed with diabetes and hypertension earlier in life.

Methodology

A cross sectional study design was implemented to collect survey data from a convenience sample of Jamaican women ($n = 350$) who attended a free blood pressure screening event provided in Jack's River, Jamaica. Institutional Review Board approval was granted by XXX University. Women ages 18 - 82 years who were voluntarily screened for hypertension and who stated an interest in learning more about health promoting behaviors completed the anonymous questionnaire. The free blood pressure screening and survey collection took place over a five - day period. Participants completed the survey onsite. Women who stated they could not read the survey were assisted with completion by a local female elementary school principle. The questionnaire evaluated demographics, self perception of health, and self perception of health education needs to include information related to infectious disease, chronic disease, nutrition, and injury prevention. Demographic data collected included age, marital status, and number of children (alive or deceased). Participants were asked to rate their general health as poor, fair, good, very good, or excellent. Women were also asked if there was a specific health topic on which they would like to request educational information.

Findings

Demographic Characteristics of Sample

To determine self-perception of health status and health education needs to guide the development of a health promotion program for rural Jamaican women living in Jack's River, Jamaica, survey data was analyzed using Statistical Package for the Social Sciences (SPSS) version 19. Seventy-five percent of respondents rated their health status as at least good, compared to 5.7% who rated it as poor.

Almost half (47.1%) had never been married (see Table 1). The mean age of the sample was 43.9 years (SD = 17.0), with a median age of 43 years. The average number of children per respondent was 3.1 (SD = 2.5).

Table 1: Demographic Characteristics of the Sample (*n* = 350)

Variable	<i>n</i>	%
Marital Status		
Married	128	36.6
Single / Never married	165	47.1
Separated	20	5.7
Divorced	11	3.1
Widowed	26	7.4
Self-reported health		
Excellent	26	7.4
Very good	121	34.6
Good	116	33.1
Fair	67	19.1
Poor	20	5.7

Interest in Health Related Issues

Ninety-six percent of respondents stated that increased awareness of health-related issues would improve both their individual health and the health of their family. Similarly high percentages were also found regarding respondents' interests in infectious diseases, chronic diseases, nutrition, and accident/injury prevention (see Table 2).

Table 2: Interest in Health-Related Issues (N = 350)

Issue	<i>n</i>	%
Education on health-related issues will improve individual and family health		
Yes	336	96.0
No	14	4.0
Interest in learning more about infectious diseases		
Yes	328	93.7
No	22	6.3
Interest in learning more about chronic diseases		
Yes	320	91.4
No	30	8.6
Interest in learning more about nutrition		
Yes	314	89.7
No	36	10.3
Interest in learning more about accident/injury prevention		
Yes	307	87.7
No	43	12.3

Significant relationships were found between interest in several health-related issues and self-reported health. Specifically, of those who agreed with the statement that becoming more educated on health-related issues would improve their individual and family health, 76.4% identified themselves as being in at least good health, compared to 42.8% of those who disagreed with the statement, $\chi^2 (df = 4) = 15.86, p = 0.003$. Similarly, of those who agreed that information on infectious diseases would improve their individual and family health, 77.7% identified themselves as being in good health or better. By comparison, 36.4% of respondents who did not consider information on infectious diseases to be beneficial self-identified as being in good health or better, $\chi^2 (df = 4) = 22.24, p < 0.000$. On the other hand, of respondents who disagreed that information on chronic diseases would be useful, 93.3% identified themselves as being in good or better health, compared to 73.5% who agreed that the same information would be useful, $\chi^2 (df = 4) = 24.75, p < 0.000$.

Cross-tabulations were performed to identify whether interest in each health topic was related to respondents' marital status. A significant relationship was found between respondents' marital status and their interest in learning more about infectious diseases, $\chi^2 (df = 4) = 16.74, p = 0.002$.

Specifically, 23% of widowed respondents expressed no interest, as compared to 10% who were separated, 7% who were married, 3% who had never married, and none who were divorced. No other significant relationships were found.

Independent sample *t*-tests were performed to identify whether interest in health-related issues was associated with respondents' age and number of children (see Table 3). Respondents who expressed interest in information about infectious diseases were younger than those who were uninterested, $t(348) = -3.634, p < 0.000$. Respondents who expressed interest in more information about chronic illnesses were older and had more children than those who were not interested: age, $t(39.94) = 6.909, p < 0.000$; number of children, $t(51.45) = 7.137, p < 0.000$. No other significant differences were found.

Table 3: Interest in Health-Related Issues by Age and Number of Children (*N* = 350)

Issue	Yes		No	
	Mean	SD	Mean	SD
Education on health-related issues will improve individual and family health				
Age	43.66	16.77	48.64	21.22
Number of children	3.07	2.48	3.21	2.61
Interest in infectious diseases				
Age	43.02	16.48	56.36	19.42
Number of children	3.02	2.48	3.91	2.33
Interest in chronic diseases				
Age	45.29	16.65	28.63	12.18
Number of children	3.24	2.49	1.27	1.31
Interest in nutrition				
Age	43.58	16.38	46.31	21.44
Number of children	3.11	2.49	2.81	2.39
Interest in accident/injury prevention				
Age	43.22	16.58	48.42	19.02
Number of children	3.00	2.48	3.58	2.43

Finally, Pearson product moment correlations were performed to identify relationships between respondents' interest in each health topic (see Table 4).

With the exception of chronic diseases, respondents who considered any health topic useful tended to also consider all other topics helpful.

Table 4: Correlations between Health Topics (*N* = 350)

	1	2	3	4	5
1. Utility of health information	—	.248***	-.063	.219***	.146**
2. Infectious diseases		—	.005	.261***	.298***
3. Chronic diseases			—	.098	.041
4. Nutrition				—	.188***
5. Injuries / accidents					—

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Self-Reported Health

Independent sample *t*-tests were performed to identify whether self-reported health was associated with respondents' interest in each of the health topics (see Table 5). Respondents' self-reported health was better among those who expressed interest in infectious diseases (2.76) than those who did not (3.64), $t(348) = -4.02$, $p < 0.000$, but was worse among those who were interested in chronic diseases (2.88), as compared to those who were not (2.07), $t(36.62) = 4.85$, $p < 0.000$. No other significant differences were found.

Table 5: Interest in Health-Related Issues by Self-Reported Health (N = 350)

Issue	Yes		No	
	Mean	SD	Mean	SD
Education on health-related issues will improve individual and family health	2.80	1.00	3.07	1.39
Interest in infectious diseases	2.76	1.01	3.64	0.79
Interest in chronic diseases	2.88	1.00	2.07	0.87
Interest in nutrition	2.79	1.02	2.97	1.00
Interest in accident/injury prevention	2.77	1.01	3.09	1.00

A significant relationship was found between respondents' self-reported health and their marital status, $\chi^2 (df = 16) = 47.78, p < 0.000$. Married respondents were more likely to report better health, while widows were more likely to report poor health.

Finally, one-way ANOVAs were performed to identify whether self-reported health was associated with respondents' age, number of children, and each of the areas of health interest. Significant differences were found for both age and number of children, $F(4, 345) = 47.35, p < 0.000$, and $F(4, 345) = 14.55, p < 0.000$, respectively. In both cases, post-hoc Tukey tests found that self-reported perception of good health declined as age and the number of children increased.

Qualitative data obtained from the study addressed the option for the participants to request health information on specific topics. One-third of the 350 women who completed the questionnaire requested information regarding cancer, specifically breast cancer. Approximately 50% of those responding to the question requested information regarding diabetes and hypertension. Other topics of interest included nutrition specific to children, strokes, gynecological health, prevention of intestinal parasitic infections, and prevention of birth defects (non-specific). Many participants stated they felt an increase in health knowledge would guide them in promoting both physical and spiritual health within their families and communities.

Recommendations for Practice

Due to a number of reasons, rural Jamaica and Jamaican women may present certain challenges in regard to the development and implementation of a health promotion and health education program. Key elements must be taken into consideration when developing a program and educating this unique population. These elements include utilizing a respectful and caring approach, understanding and supporting cultural and spiritual beliefs, communicating effectively, and gaining trust. In addition, action plans must be developed to address barriers such as language interpretation and transportation issues (Barry, Lange, & King, 2011; Nguyen, Tran, Kagawa-Singer & Foo, 2011). Studies regarding different populations of women support that customized teaching methods and support of peers plays a key role in increasing understanding of health and improving compliance with a healthy lifestyle (Boyle, Mattern, Lassiter, & Ritzler, 2011; Fouad et al., 2010; Murphy, 2012). Ensuring that teaching methods are culturally sensitive is an important factor in increasing participation in educational programs designed to improve knowledge and awareness of health care issues in underserved female populations. One option in which this may be achieved is through enlisting the help of lay people within the community to conduct assist in the development of the health education program and also in the implementation of the program. Topics should be relevant to the specific population. Distribution of informational materials may also be of benefit. Pretests and posttests have also shown to be helpful in assessing baseline knowledge, determining barriers to learning, and evaluating the effectiveness of educational interventions (Jimenez, Xie, Goldstein, & Chalas, 2011). Other strategies include having women in the community host social gatherings for smaller groups of women to come and learn about certain health care topics. This approach can involve more socialization and may offer a more relaxed environment than a classroom-type setting (Byrne, 2009).

Based on the findings of the study, developing a health promotion and health education program of particular interest to this population would be of most benefit and should include information on common health issues such as diabetes, hypertension and strokes, prevention of intestinal parasitic infections, nutrition, breast cancer and gynecological health. It is recommended that a program be started that meets on a regular basis to provide health promotion education for the women in the community. It might be beneficial to target specific health topics to specific age groups, such as offering education on chronic disease prevention to "younger" women or even the younger population as a whole.

The program developed should concentrate on helping women to understand the concept of holistic health, and teach that poverty does not have to equal poor health.

Summary

Program development is crucial in providing much needed health promotion and health education for rural Jamaican women. These women report the need for additional health education. Areas for improved health education that have been specifically identified in this study of rural Jamaica women include chronic disease, infectious disease, nutrition, and injury prevention. Increasing the level of knowledge related to these issues could possibly increase the level of self perceived health status among this population. Data from this project are being utilized to develop health education interventions to implement in Jack's River, Jamaica. In an effort to improve health outcomes, future research, policy, and practice should focus on behavior and disease specific health education needs of this population and similar populations. Policies to support educational programs to improve self-perception and knowledge of health issues in rural Jamaican women have the potential to improve the overall health of rural Jamaican communities.

All relevant Jamaican laws were observed during the collection of data for this project.

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