# Spiritually-based Colorectal Cancer Education: Feasibility of implementation and preliminary evaluation

Chastity McDavid, PhD, MPH[1], Cheryl Holt, PhD[1], Penny Southward, MPPM[1], Crystal Lee, BS[1], Lun Chen, MD, MPH[1], , Isabel Scarinci, PhD[2], Martha Crowther, PhD[3], John Bolland, PhD[3], Mark Litaker, PhD[4], Mohamad Eloubeidi, MD[5], (1) Division of Preventive Medicine, Univ. of Alabama, Birmingham, 1717 11th Ave. South, Medical Towers, Suite 641, Birmingham, AL 35205, 205-934-2816, cholt@uab.edu, (2) Preventive Medicine, University of Alabama at Birmingham, 1717 11th Avenue South, Room 609, Birmingham, AL 35205, (3) School of Public Health/Department of Health Behavior, Univ. of Alabama, Birmingham, 1530 3rd Avenue South, RPHB 227H, Birmingham, AL 35294-0022, (4) Diagnostic Sciences, Univ. of Alabama, Birmingham, 1530 3rd Avenue South, LHRB 134, Birmingham, AL 35294-0007, (5) Medicine/Gastroenterology, Univ. of Alabama, Birmingham, 1530 3rd Avenue South, ZRB 408, Birmingham, AL 35294-0007, (6)

## Introduction

Colorectal cancer (CRC) is the second leading cause of cancer mortality in the United States. Significant racial disparities exist such that African Americans have higher incidence as well as mortality rates than all other racial/ethnic groups. One reason for the disparity is lower rates of screening among African Americans as compared to Whites. A number of interventions have been proposed to address the underutilization of screening. One successful approach has been the development of culturally-relevant interventions through a community-based participatory approach. The literature suggests that religiosity, an important aspect of African American culture, has been shown to be positively associated with health outcomes and behaviors. One way of making cancer communications interventions more relevant to the African American community is to integrate spiritually-based content. In this study, a culturally-relevant and spiritually-based intervention focusing on promotion of colorectal cancer screening among church-attending African Americans age 50 and older was implemented. The intervention was delivered by trained Community Health Advisors who taught group sessions on colorectal cancer and screening, using print materials developed and piloted for this study.

## Purpose

To describe the feasibility of implementing a church-based colorectal cancer education program and preliminary evaluation findings.

## Method

•The intervention materials were developed and pilot tested in this project.

***Phase 1: Implementation***

• 16 churches were recruited from the Birmingham area to participate as intervention sites.

• Community Health Advisors from each church were identified, recruited and trained to deliver two educational group sessions on colorectal cancer and early detection to their fellow church members.

***Phase 2: Preliminary Evaluation***

• A baseline survey assessing knowledge, skills, and screening practices was completed by each participant prior to participating in the first educational session.

• A similar follow-up survey was completed by each participant at the conclusion of the second educational session (approximately one month after the first educational session) to determine if the participants' level of colorectal cancer knowledge and screening rates had changed as a result of the intervention.

## Results

***Table 1: Participant Demographics (n=349)***

| Descriptives | |
|---|---|
| Age (Avg.) | 62 years [S.D. 9.702] |
| Religion | 98.7% Christian, 1.3% non-Christian |
| Sex | 70.8% female, 29.2% male |
| Marital Status | 46.9% married, 53.1% single |
| Education | 87.2% 12th grade ed or higher, 12.8% less than 12th grade education |
| Work Status | 50.2% employed, 49.8% unemployed |
| Income | 34.1% had household income of less than $20K per year, 65.9% had household income greater than $20K per year |
| Insurance | 75.7% Medicare, 48.5% Medicaid, 87.6% private insurance through work, 39.5% other |

***Table 2: Colorectal Cancer Knowledge***

| Colorectal Cancer Knowledge Questions | % Agree at Baseline | % Agree at Follow-up 1 |
|---|---|---|
| Colorectal cancer is cancer of the colon and rectum | 84.0 | 96.8 |
| Colorectal cancer begins as a growth in the colon or rectum | 69.2 | 91.5 |
| Colorectal cancer is the leading cause of cancer death | 38.9 | 44.0 |
| By removing polyps, colorectal cancer can be prevented | 59.7 | 84.6 |
| Finding colorectal cancer early will save your life | 85.2 | 94.3 |
| A person can live a normal life after being treated for colorectal cancer | 80.8 | 95.9 |
| Colorectal cancer screening begins at age 50 | 56.0 | 83.6 |
| Several screening tests for colorectal cancer | 65.5 | 94.7 |
| Both men and women are at risk for colorectal cancer | 84.6 | 97.1 |
| African Americans are at higher risk of dying from colorectal cancer than are Whites | 51.5 | 63.0 |
| Colorectal cancer is usually fatal | 18.6 | 13.6 |
| Cancer is a death sentence | 16.2 | 8.8 |

***Table 3: Religious / Spiritual Practices***

| Spiritual/ Religious Practices | % Agree | % Disagree | % No Opinion |
|---|---|---|---|
| Spiritual beliefs are the foundation of approach to life | 93.5 | 5.5 | 0.9 |
| Have a personal relationship with God | 93.7 | 5.4 | 0.9 |
| Talk openly about my faith with others | 90.9 | 6.6 | 2.4 |

***Table 4: Preferred CRC Screening Tests***

| Preferred Colorectal Cancer Screening Test | % |
|---|---|
| Fecal Occult Blood Test | 30.3 |
| Flexible Sigmoidoscopy | 4.7 |
| Colonoscopy | 50.8 |
| Double Contrast Barium Enema | 14.2 |

***Table 5: Colorectal Cancer Screening Practices***

| Colorectal Cancer Screening Practices | % Agree at Baseline | % Agree at Follow-up |
|---|---|---|
| Fecal Occult Blood Test (FOBT) | | |
| Have you ever heard of a FOBT? | 64.4 | 88.8 |
| Have you ever had a FOBT? | 48.1 | 39.6 |
| Has a HCP recommended a FOBT this year? | 19.6 | 17.1 |
| Flexible Sigmoidoscopy (FS) | | |
| Have you ever heard of a FS? | 40.1 | 76.9 |
| Have you ever had a FS? | 34.4 | 26.5 |
| Has a HCP recommended a FS this year? | 16.1 | 12.4 |
| Colonoscopy | | |
| Have you ever heard of a Colonoscopy? | 76.8 | 85.4 |
| Have you ever had a Colonoscopy? | 67.5 | 63.6 |
| Has a HCP recommended a Colonoscopy this year? | 24.0 | 24.7 |
| Double Contrast Barium Enema (DCBE) | | |
| Have you ever heard of DCBE? | 46.2 | 68.4 |
| Have you ever had a DCBE? | 41.2 | 34.6 |
| Has a HCP recommended a DCBE this year? | 6.6 | 9.4 |

***Table 6: Preventive Health Practices***

| Preventive Health Practices | % No | % Yes | % Not Sure |
|---|---|---|---|
| See a MD regularly for health problems | 92.4 | 7.6 | 0.0 |
| MD talked about colorectal cancer screening | 60.1 | 32.7 | 7.2 |
| Rely mostly on MD to inform about needed tests | 73.0 | 27.0 | 0.0 |
| Usually look for own info about medical tests/screenings | 50.8 | 49.2 | 0.0 |

*Symbol of Hope for Colon Cancer Cure*

## Discussion

***Feasibility of Implementation***

***Strengths***

•16 churches were successfully recruited over a period of two months.

• 32 CHAs were identified, recruited, and trained within two months.

• Two educational sessions were conduced at 15 of the 16 recruited churches over a period of four months.

•Flexibility of the research staff contributed to the success of church and CHA recruitment as well as the timely delivery of the two educational sessions.

***Limitations***

•Several churches did not meet their recruitment goals.

•Retention from the first to second educational session was approx. 80%.

•One church withdrew from the study due to internal administrative issues.

•Educational sessions for replacement church was delayed four months due to scheduling conflicts and a medical emergency of one of the CHAs.

***Preliminary Evaluation***

•Findings of the preliminary evaluation indicate that CRC knowledge levels increased significantly as a result of participation in the educational sessions.

•Knowledge of screening tests also increased. Consequently, screening practices were re-evaluated and determined to be much lower than initially reported on the baseline survey.

## Conclusions

**•A need for education on CRC and screening exists among this population.**

•Using a community-based approach to formative research in the development of an intervention ensures that the program is culturally appropriate, personally relevant, and will be more likely to stimulate cognitive elaboration, leading to attitudinal and behavior change.

•Engaging members of the target population in the development and implementation of the program as stakeholders creates a sense of ownership and increases the probability of the program and initiation of similar health promoting activities.

## Acknowledgments

This project is supported by Health Promotion and Disease Prevention Research Centers: Special Interest Project Competitive Supplements, SIP #5-2005, RFA DP-04-003A.

## References

1. American Cancer Society. Cancer Prevention and Early Detection Facts & Figures 2007 . Atlanta, Georgia: American Cancer Society, Inc.; 2007

2. Centers for Disease Control and Prevention. BRFSS online information. U.S. Department of Health and Human Services. Available at: http://cdc.gov/brfss/. Accessed January 23, 2003.