

PREDICTORS OF COLORECTAL CANCER SCREENING IN AFRICAN AMERICANS

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BACKGROUND:

- Colorectal cancer (CRC) is the third most common cancer and also the third leading cause of cancer death in the United States.
- CRC incidence and mortality rates are higher among blacks than among whites, and screening rates are lower in blacks than in whites.
- Early detection can reduce colorectal cancer (CRC) mortality by 15% to 33%.

BACKGROUND

- Screening is widely recommended for average-risk adults beginning at age 50 years (USPSTF).
- Factors that facilitate screening include
 - higher income,
 - higher education,
 - old age,
 - strong social ties and supportive relationships.

PURPOSE:

- This study assessed the predictors of CRC Screening among African American men and women by:
 - Demographic & Socioeconomic factors,
 - Cancer Screening Knowledge, Attitude & Beliefs,
 - To examine the relationship between cancer fatalism and the participation in colorectal cancer screening (fecal occult blood test, sigmoidoscopy, colonoscopy) among African America.

METHODS

- The data was collected as part of a larger study evaluating the effects of three intervention strategies:
 - One-on-one education
 - Small group education
 - Reduced out-of-pocket expenses(financial support) on CRC screening in an AA population
- Data analyses were done using SAS 9.2. in the following sequence:
 1. The distributions of predictors by participant sociodemographic factors
 2. Calculating the fatalism score: The Powe Fatalism Inventory consists of yes and no responses, if the answer = yes Fatalism Score = Fatalism Score + 1 (maximum score of 15)
 3. The associations between CRC screening outcomes by predictors
 4. The determination of the impact of the measures using Logistic Regression model

Table 1: Demographic characteristics by CRC screening

Characteristics	No CRC screening n (%)	CRC screening n (%)	Chi- square	p- value
Gender			1.1	0.29
Male	79 (89.8)	9 (10.2)		
Female	191 (85.3)	33 (14.7)		
Age			3.6	0.05
50-64.9	119 (90.8)	12 (9.2)		
65+	151 (83.4)	30 (16.6)		
Education			1.6	0.45
Elementary	51 (82.3)	11 (7.7)		
High/Technical school	126 (88.7)	16 (11.3)		
College	92 (85.9)	15 (14.0)		
Marital status			0.2	0.68
Married	75 (85.2)	13 (14.8)		
Other	194 (87.0)	29 (13.0)		
Insurance coverage			2.4	0.30
No insurance	23 (95.8)	1 (4.2)		
Medicare/Medicaid	174 (84.9)	31 (15.1)		
Health insurance/HMO	73 (87.9)	10 (12.0)		

Table 2: Bivariate Analysis for Fatalism Score and Attitude, Benefits & Barriers Score

Cancer Fatalism and Knowledge Items:	Mean	95% Confidence Interval		p-value
		Lower	Upper	
Fatalism Score by Screened : No (n=159)	4.8428	4.2587	5.4269	0.059
Yes(n=35)	6.1429	5.0246	7.2611	
Attitude, Benefits and Barriers Score by Screened : No (n=175)	22.1429	21.5607	22.7250	0.0490
Yes (n=42)	23.2143	22.2793	24.1492	

Table 3: Logistic Regression

Variable	OR	95% Confidence Interval		p-value
		Lower	Upper	
Gender: Female	1.000			
Male	0.461	0.170	1.253	0.1290
Insurance: Health Insurance/HMO	1.000			
No Insurance	0.415	0.046	3.782	0.4356
Medicaid/Medicare	1.390	0.434	4.449	0.5791
Age: 65+	1.000			
50-64.9	1.087	0.352	3.360	0.8844
Education : College or Graduate School	1.000			
Elementary School	1.373	0.378	4.98	0.6298
High School or Technical	0.841	0.327	2.162	0.7190
Marital Status: Married	1.000			
Other	1.064	0.413	2.741	0.8984
Fatalism Score	1.192	1.033	1.375	0.0159
Attitude, Benefits and Barriers Score	1.237	1.063	1.439	0.0058

RESULTS:

- 312 men and women participated in the study
- 64 (20.5%) of participants were screened for CRC after six months from baseline.
- Higher knowledge, attitude, and beliefs scores about screening ($p < 0.006$; 1.19(1.03 - 1.37)) and cancer fatalism scores ($p < 0.02$; 1.24(1.06-1.44)) were the strongest predictors for CRC screening.

CONCLUSION:

- Higher score on attitude, benefits and beliefs, and higher level of fatalism scores are predictors of increased CRC screening rates among African Americans.
- The CRC screening rate of 20% among AAs who participated in this educational program indicated that there are still barriers to overcome.

Co-Authors & References

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Fatalism Questions Asked

Please answer the following questions based on how you feel or what you think (YES OR NO).

1. I believe if someone is meant to have colorectal cancer, it doesn't matter what they eat, they will get colorectal cancer anyway
2. I believe if someone has colorectal cancer, it is already too late to do anything about it
3. I believe someone can eat foods high in fat all their lives, but if they are not meant to get colorectal cancer, they won't get it
4. I believe if someone is meant to get colorectal cancer, they will get it no matter what they do
5. I believe if someone gets colorectal cancer, it was meant to be
6. I believe if someone gets colorectal cancer, his or her time to die is near
7. I believe if someone gets colorectal cancer, that's the way they were meant to die
8. I believe getting checked for colorectal cancer makes people scared that they may really have colorectal cancer
9. I believe if someone is meant to have colorectal cancer, they will have it
10. I believe some people don't want to know if they have colorectal cancer, because they do not want to know they are dying from it
11. I believe if someone gets colorectal cancer, it doesn't matter when they find out about it, they will still die from it
12. I believe if someone gets colorectal cancer and gets treated, they will probably still die from it
13. I believe if someone was meant to have colorectal cancer, it does not matter what doctors and nurses tell them to do, they will get it anyway
14. I believe if someone is meant to have colorectal cancer, it doesn't matter what healthy foods they eat, they will still get it
15. I believe colorectal cancer will kill you no matter when it is found and how it is treated

ATTITUDES, BENEFITS AND BARRIERS QUESTIONS

- Please consider each of the following statements and indicate the extent to which you “agree” or “disagree”.
 - a. Colorectal cancer tests can find growths that can become cancer
 - b. Colorectal cancer tests are a part of good health
 - c. If a colorectal cancer test comes out normal, you do not have to have any more
 - d. I would probably not have a colorectal cancer test if I had to have enemas or laxatives
 - e. Having a colorectal cancer test is very embarrassing
 - f. Having regular colorectal cancer tests would give me peace of mind about my health
 - g. I don't need to have a colorectal cancer test until I have a stomach problem
 - h. I would probably not have a colorectal cancer test unless my doctor said I really needed one

- i. If a colorectal cancer test finds any kind of problem, it will be too late to do something about it
- j. It would be inconvenient to have a colorectal cancer test at this time
- k. If there is any chance that a colorectal cancer test is not safe, I do not want to have it
- l. Colorectal cancer tests are risky
- m. A healthy diet helps me lower my risk of colorectal cancer, and it means I do not need to have colorectal cancer tests
- n. Colorectal cancer tests are safe
- o. I cannot afford to have colorectal cancer tests
- p. A colorectal cancer test will make me feel in control over my health
- q. I would probably not have a colorectal cancer test, if my family and friends said it was painful

- r. I would be more likely to have a colorectal cancer test, if my doctor said it was important
- s. A colorectal cancer test will get in the way of other things I have to do
- t. Colorectal cancer tests are useful for people my age
- u. Regular colorectal cancer tests will help me to live a long life
- v. The results of colorectal cancer tests cannot be trusted because too many things can go wrong
- w. It is very likely colorectal cancer tests will miss something
- x. Colorectal cancer tests could well lead to unnecessary surgery when nothing is really wrong
- y. Colorectal cancer tests are too painful or uncomfortable for me
- z. Having colorectal cancer tests shows you are getting current up-to-date health care
- aa. It would be a hassle to discontinue certain foods for two or three days before an FOBT
- bb. It would be hard to go without taking aspirin for a whole week before taking an FOBT