

Physician Recommendation as a Predictor of Participation in Colorectal Cancer Screening: A Population-Based Study of South Carolina Adults (Table 5)

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Background and Purpose

Colorectal cancer (CRC) is a leading cause of cancer-related death in the United States. Many CRC incident cases can be prevented and disease downstaged through appropriate CRC screening. CRC screening is vastly underutilized in comparison to other types of cancer screening in the United States and in South Carolina (SC). Thus, higher rates of disease and deaths persist with CRC disparities by racial and ethnic group, gender, and geographic location (i.e. urban v. rural). The purpose of this study was to understand the relationship between physician recommendation and CRC screening in South Carolina. The knowledge gained will aid in the development of public health interventions to increase CRC screening and reduce CRC incidence and mortality.

Methods

The study was a cross-sectional, population-based telephone study. Eligible men and women were residents of SC, were between the ages of 45 and 75 years; had no hearing, speaking, or cognitive difficulties preventing the individual from completing a telephone interview; and were able to understand and respond in English. The survey included 115 items assessing demographics, CRC and CRC screening awareness, knowledge, attitudes and beliefs, cancer screening intention and behavior, personal risk assessment, history of CRC, related behaviors, information seeking behaviors, access to care, past health care experiences, social ties, and exposure to CRC awareness efforts developed via literature review, expert panel review, and pretesting. Trained interviewers from a professional survey firm conducted computer-assisted, random digit dialed telephone interviews, with landline and cell phone numbers from May to August 2009. Data were analyzed with SAS and STATA. Odds ratios were adjusted for race and gender.

Results

A total of 1,503 respondents completed the telephone interview. Analysis for this study was restricted to respondents aged 50-75 (n=1,302) who fell in the recommended screening age range. Table 1 shows descriptive characteristics of respondents. Table 2 shows CRC screening behavior, including physician recommendation data, limited to fecal occult blood tests (FOBT), flexible sigmoidoscopy, and colonoscopy.

Table 1: Descriptive Characteristics of Respondents (n=1,302)

Characteristic	<i>f</i>	(%)	Characteristic	<i>f</i>	(%)
Gender			Income		
Male	483	(37)	Less than \$25,000	322	(25)
Female	819	(63)	\$25,000 - \$49,999	307	(24)
Race			\$50,000 - \$74,999	192	(15)
African American	275	(21)	More than \$75,000	260	(20)
European American	1003	(77)	Unknown	221	(17)
Other	24	(2)	Relationship Status		
Age (Mean 60)			Single	92	(7)
50-54	250	(19)	Partner/Married	792	(61)
55-59	242	(19)	Separated/Divorced/Widowed	408	(31)
60-64	267	(21)	Unknown	10	(< 1)
65-75	543	(41)	Employment		
Education			Employed	497	(38)
Less than high school diploma	177	(14)	Insurance Status and Type		
High school diploma or GED	360	(28)	Insured	1194	(92)
Some college	283	(22)	Uninsured	108	(8)
College degree	471	(36)	Geographic Location		
Unknown	11	(< 1)	Urban	849	(65)
			Rural	453	(35)

Table 2: CRC Screening History (n=1,302)

Colorectal Cancer Screening Test	Physician Recommended	Total, f (%)	
		Ever Had Test	Abnormal Test
Fecal Occult Blood Test (FOBT)	721 (55)	451 (35)	89 (7)
Flexible Sigmoidoscopy	428 (33)	403 (31)	49 (4)
Colonoscopy	989 (76)	905 (70)	248 (27)

- Respondents who reported physician recommendation for CRC screening tests were more likely to have had that test: FOBT (aOR=3.39, CI 2.64, 4.35); flexible sigmoidoscopy (aOR=117.04, CI 77.36, 177.08); colonoscopy (aOR=58.36, CI 38.81, 87.76); and any type of CRC screening test (aOR=26.32, CI 17.45, 39.72).
- Those reporting physician recommendation were also more likely to intend to have each test: FOBT in next 12 months (aOR=1.92, CI 1.51, 2.47); flexible sigmoidoscopy in next five years (aOR=2.82, CI 2.19, 3.63); colonoscopy in next 10 years (aOR=7.05, CI 5.25, 9.48); and any type of CRC screening test (aOR=5.66, CI 3.94, 8.13) compared to those not reporting recommendation.
- African-American respondents were more likely to report physician recommendation for FOBT (aOR=1.57, CI 1.18, 2.09); flexible sigmoidoscopy in the next five years (aOR=2.97, CI 2.23, 3.96); and more likely to intend to have colonoscopy (aOR=1.53, CI 1.07, 2.19) compared to white respondents.

Discussion and Conclusion

In this study, consistent with previously published research, physician recommendation for CRC screening was significantly associated with CRC screening. Intervention efforts to increase physician recommendation are warranted given the significant effect. The results from this study are consistent with the literature in which CRC screening recommendations are key predictors of participation in CRC screening. Additionally, racial differences were apparent in regards to physician recommendation with the various screening modalities. Access to CRC screening must be addressed in order for physician recommendation interventions to be successful. Access to care encompasses accessibility, availability, accommodation, affordability, and acceptability. All of these must be addressed in order to ensure participation and ultimately fewer cases of CRC and downstaged disease. Possible interventions should focus on at least one of three areas: 1) system-level factors, 2) health care provider (physician) level, and 3) patient level. Interventions focused on system-level factors should target barriers to access to care, cost, and availability of CRC screening tests whereas interventions focused on the health care provider and patient levels should focus on increasing knowledge, awareness, CRC screening reminders, and patient-provider communication. Interventions focused on increasing knowledge and awareness should consider that the association between knowledge, awareness, and CRC screening behaviors are not as strong as with knowledge, awareness, and other cancer screening behaviors. More must be done to transform awareness and knowledge of the need for CRC screening into participation. Based on this study, physician recommendation is an important factor.

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