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A sample of 115 urban, working-class, predominantly minority men and women was interviewed by telephone to assess knowledge, beliefs and barriers relevant to colorectal cancer (CRC) and CRC screening. More than half were unable to name a CRC screening test. Misconceptions were common.

Full Text (4080 words)*Copyright Aspen Publishers, Inc. Oct 2001***[Headnote]**

A sample of 115 urban, working-class, predominantly minority men and women was interviewed by telephone to assess knowledge, beliefs, and barriers relevant to colorectal cancer (CRC) and CRC screening. More than half (53.9%) were unable to name a CRC screening test. Misconceptions were common. Dispelling inaccurate beliefs, establishing an individual's preference for fecal occult blood tests or flexible sigmoidoscopy, and helping individuals take a proactive role in the receipt of CRC screening are important goals for health education efforts aimed at increasing rates of CRC screening. Participants' willingness to engage in detailed telephone conversations about CRC and CRC screening was encouraging. Key words: attitudes, colorectal cancer screening, knowledge, minority research

RESEARCH PROBLEM

Colorectal cancer (CRC) is the second leading cause of death from cancer in the United States. In 1999, there were an estimated 129,400 new cases of CRC and 56,600 deaths.¹ In addition to mortality, CRC and its treatment produced significant morbidity and increased cost of health care.

Survival rates for CRC are highly dependent on stage at diagnosis and treatment. The estimated 5-year survival rate drops from >90% in persons with localized disease (Dukes A) to 60% in patients with regional spread (Dukes C) to approximately 5% in persons with distant metastases (Dukes D).² Compared with the more affluent, low-income groups are typically diagnosed and treated at later stages.³ Within low-income groups, blacks suffer higher mortality rates than whites, in part because of delayed diagnosis.⁴⁻⁸

Both incidence of and mortality from CRC can be reduced by timely and appropriate screening. Randomized clinical trials indicate that biennial screening with fecal occult blood tests (FOBTs) can reduce deaths from CRC by 15% to 21% in people aged 45 to 80 years.^{9,10} One trial reported a 33% reduction in CRC deaths with annual FOBT screening compared with a usual care control group along with a concomitant decrease in CRC incidence.¹² Although clinical trial data for flexible sigmoidoscopy are unavailable, case-control studies show a 59% to 79% reduction in deaths from cancers within the reach of the sigmoidoscope in age groups 45 years and older.¹³⁻¹⁵ At present, there is no direct evidence that colonoscopy or barium enema reduce mortality, though studies are underway.

The US Preventive Services Task Force currently recommends annual or biennial screening for CRC with guaiac-based FOBT for all persons aged 50 to 80 years of age.¹⁶ Flexible sigmoidoscopy also is endorsed, but with optimal periodicity to be determined. The [American Cancer Society](#) (ACS) recommends flexible sigmoidoscopy every 5 years¹⁷ plus an annual FOBT beginning at age 50. National screening recommendations of colonoscopy every 10 years and double contrast barium enema every 5 to 10 years for "average-risk" individuals remain controversial.¹⁶⁻¹⁸ Despite the lack of consensus about specific procedures and periodicity, support for regular periodic screening for CRC for individuals aged 50 and older seems undisputed.

Nevertheless, and regardless of how one defines CRC screening, screening rates remain low, particularly among minorities. Healthy People 2010⁽¹⁹⁾ summarizes data from the National Health Interview Survey (NHIS) of 1992. Only 30% of whites over age 50 reported an FOBT within the preceding 2 years, 25% of African Americans, and 22% of Hispanics. The pattern was similar for adults over age 50 who had ever received a sigmoidoscopy—34% of whites, 27% of African Americans, and 28% of Hispanics. For subgroups with the least education, and lowest family income levels, the proportions screened by FOBT or sigmoidoscopy were even smaller.¹⁹ The year 2010 goals set forth in Healthy People 2010 are for 50% of the population 50 years and older to report an FOBT within the past 2 years and for 50% to report that they ever had sigmoidoscopy.

To successfully promote CRC screening, a necessary first step is improved understanding of factors influencing individuals' choices to seek and receive CRC screening. At present, there is scant research on the determinants of CRC screening behaviors, particularly in minority populations.²⁰ One study²¹ among predominantly low-income, African American women suggests perceiving fewer barriers to getting a flexible sigmoidoscopy and having a physician recommend a flexible sigmoidoscopy are important predictors of flexible sigmoidoscopy. A recent qualitative study²² based on 14 focus group interviews suggested that older Americans are, in general, poorly informed about CRC, have negative attitudes toward the screening preparations and procedures, and have limited interaction with their providers and their peers about this disease. Participants in this study were African American and white, but analyses were not stratified by race.

The purpose of this pilot study was to describe knowledge, beliefs, and barriers relevant to CRC and CRC screening in a sample drawn from a population in which a large-scale health promotion intervention trial is being undertaken. Results of the pilot study guided the development of a telephone-based health intervention designed to increase receipt of CRC screening. Descriptive statistics are presented for the total pilot sample and also by screening status and intention to be screened.

METHODS

The Healthy Colon Project is an ongoing, randomized clinical trial designed to test whether a telephone-based health intervention will increase the rate of CRC screening beyond that observed with the distribution of generic print material.

Participants

Prior to initiation of the main Healthy Colon Project trial, 115 men and women completed a pilot telephone survey. Subjects for this pilot, like subjects in the main trial, were active members (or their dependents) of the 1199 National Benefit Fund (NBF). With approximately 224,500 participants in the New York City metropolitan area, the 1199 NBF is the largest health care workers benefit fund in the United States. Membership in 1199 NBF is contractually mandated for eligible employees at over 95% of the voluntary (private) hospitals in New York City. FOBT, flexible sigmoidoscopy, and colonoscopy, if performed, are 100% reimbursable for all 1199 NBF participants.

Recruitment

Pilot study subjects had to be 53 years or older on July 17, 2000. Interviewers each called numbers from different pages of an age-sorted 1199 NBF members list. If a number was busy, incorrect, or had no answer, the interviewer proceeded directly to the next number. A bilingual interviewer focused on members with Spanish surnames. Once contacted, members were asked if they would be willing to answer a survey about CRC and CRC screening. Three trained interviewers conducted 115 telephone interviews over a 4-month period. On average, the surveys lasted 29.5 minutes (standard deviation [SD] = 17.5). Twenty-six participants were surveyed twice within 1 month to test for reliability of the instrument. Test-retest kappas for knowledge items ranged from 0 for items with almost no variability and less than perfect consistency to 1.00. For knowledge items in the middle range of variability (25% to 75% correct), kappas ranged between 0.49 and 0.79. Kappas for beliefs about CRC ranged between 0.44 and 1.00. Test-retest agreement was perfect for screening status. The kappas for intention to be screened in the next 6 months among those currently unscreened were 0.87 for FOBT and 0.50 for flexible

sigmoidoscopy.

Measurements

Three theoretical frameworks guided the development of the questionnaire: Kreuter and Green's precede-proceed model,²³ Prochaska's stages of change (transtheoretical theory),²⁴ and diffusion of innovation theory.²⁵ In addition, qualitative information derived from 16 one-- on-one interviews and four focus groups was used. The intent of this study was to generate hypotheses that warrant further research; consequently, an inductive approach was emphasized. The focus was variables that might be amenable to change through health education intervention. The following measures were formulated:

- * Demographic and health characteristics: Participants were asked to provide date and place of birth, self-- described race/ethnicity, years of education, marital status, and household income. Medical history variables included history of colorectal polyps and inflammatory bowel disease, personal and family history of CRC and other cancers, and receipt of mammography and prostate examinations in women and men, respectively.
- * CRC screening behaviors and intentions: Participants were read brief descriptions of a 3-day home stool test (herein referred to as FOBT), flexible sigmoidoscopy, and colonoscopy and then asked if they had ever heard of the test, had the test, refused the test, or intended to have the test within the next 6 months.
- * Knowledge about CRC and CRC screening: Participants were asked about CRC prevalence and CRC screening. Correct responses were coded as 1; incorrect responses and responses of don't know were coded as 0.
- * Beliefs about CRC and CRC screening: Participants were asked to respond yes or no to statements reflecting general beliefs about CRC and CRC screening. Statements covered perceived susceptibility and risk for CRC, perceived efficacy of screening, perceived benefits and barriers to screening, and beliefs about normative screening behavior. Separate sections addressed beliefs about FOBT and flexible sigmoidoscopy.
- * Barriers to CRC screening: Participants were asked to respond yes or no regarding whether specific items would discourage them from doing an FOBT or having a flexible sigmoidoscopy.
- * Physician advice and social support for CRC screening: Participants were asked if anyone (i.e., physician, family member) wanted them to have a CRC screening test, had ever encouraged them to have a CRC screening test, or could convince them to have a CRC screening test.

Subjects had the option of being interviewed in Spanish or English. The relevance and accuracy of the Spanish version were checked by back-translation and subsequent comparison to the English version. Discrepancies were discussed and resolved by the researchers and translators. The Human Institutional Review Boards at both Teachers College, Columbia University, and at Columbia Presbyterian Medical Center approved the research protocol.

Statistical analyses

Demographic characteristics of the pilot sample are described. Descriptive statistics for knowledge, beliefs, and barriers also are presented. Selected crosstabulations by screening status and by stated intention to be screened are evaluated by chi-square tests. All analyses were performed using [SPSS](#) (version 10.0; [SPSS Inc.](#), Chicago).

RESULTS

Demographic profile

Participants ranged in age from 53 to 66 years (mean: 60.1; Table 1). There were nearly twice as many women as men. Most respondents were married (60.9%), had schooling beyond high school (52.2%), and were employed full-- time (71.3%). Of those who reported income, 74% had annual household incomes under \$50,000 per year. The largest subgroup was born in the West Indies (41.7%). Almost one fifth (19.1%) were born in New York City. About one third (32.2%) were Hispanic, and about one quarter black (24.3%). Most participants had primary care physicians (77.4%) and had had a recent general check up (80.9%). Most women reported having mammograms (82.2%) and Pap smears (74.0%) within the past 2 years. Over half of the men reported having had a prostate examination (61.9%) within the same period.

CRC screening behaviors

CRC screening behaviors are summarized in Table 2. Of the 115 participants, 41.7% had recently been screened; 27.8% had an FOBT within the past 2 years, 10.4% had a flexible sigmoidoscopy within the past 5 years, and 22.6% had a colonoscopy within the past 10 years. More than half (58.3%, n = 67) of the respondents had not had any one of the three (unscreened). Of these unscreened respondents, 38.8% (n = 26) reported that they intended to do an FOBT within the next 6 months, and 10.4% (n = 7) reported that they intended to get a sigmoidoscopy within the next 6 months.

Knowledge

Overall, 87% of participants had heard of CRC, yet only 46.1% knew of a screening test for the disease. Most were aware that CRC was not a rare cancer. Ninety-four percent knew CRC was more common than brain cancer, and 84.3% knew CRC was more common than stomach cancer. The majority of women (89.0%) knew breast cancer was more common than CRC. The majority of men (90.5%) knew prostate cancer was more common than CRC. Over 82% reported knowing that regular, periodic screening for CRC is recommended. Three quarters (74.8%) knew that they themselves were in the age range where they should be screened.

Table [Enlarge 200%](#)
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Table 1.

Table 2. Colorectal cancer (CRC) screening behaviors of study sample

	%	Number
Screened*	44.7	48
Had FOBT within past 2 years	27.6	32
Had flexible sigmoidoscopy within past 5 years	15.4	12
Had colonoscopy within past 10 years	22.6	26
Unscreened	55.3	67
Intend to have FOBT in next 6 months	38.8†	36
Intend to have flexible sigmoidoscopy in next 6 months	18.4†	7

*Screened: total stool blood test (FOBT) in past 2 years, flexible sigmoidoscopy in the past 5 years, or colonoscopy in the past 10 years (screened, all others).
†Percentages based on screened (n = 47) only.

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Table 2.

Beliefs

Beliefs relevant to CRC and CRC screening are shown in Table 3. Less than half (47.0%) believed CRC might affect them personally, and even fewer (39.1%) believed themselves to be at risk. Over half (58.3%) believed symptoms would be present if a person had CRC. Two thirds (67.8%) believed CRC could be cured. In general, participants did not believe that CRC screening was normative behavior among people they knew. Only about half of the participants regarded either the FOBT or the flexible sigmoidoscopy as accurate tests.

Participants generally did not believe that the FOBT would be too embarrassing, too upsetting, or too time consuming. For the flexible sigmoidoscopy, 39.1% believed the test would be too painful, 31.3% believed it would be too embarrassing, and 20.0% believed it would be too upsetting. Most believed that doing these tests would lessen worry about CRC; moreover, if either test found something, they would rather know. About one third did not believe or did not know whether their health insurance would pay for these examinations.

Barriers

Participants generally did not report that the suggested potential barriers to CRC screening would discourage them from being screened (Table 4). For FOBT, the most prevalent factors acting as barriers were having to obtain stool samples from the toilet water (15.7%) and having to follow one of seven commonly cited plant-based dietary restrictions in preparation for the test (15.7%). For flexible sigmoidoscopy, the primary barrier was the need to take an enema prior to the test (28.7%).

Table 3. Beliefs relevant to colorectal cancer (CRC) in study sample

	% Yes (number)	% No (number)	% Don't know (number)	% Refused/Not Applicable (number)
General				
Do you think CRC might affect you personally?	47.0 (54)	39.1 (38)	18.1 (22)	0.0 (0)
Do you consider yourself to be at risk for CRC?	39.1 (45)	46.2 (52)	15.7 (18)	0.0 (0)
Do you believe a person with colitis would have symptoms?	44.0 (51)	21.7 (25)	33.9 (39)	0.0 (0)
Do you believe a person with CRC would have symptoms?	58.3 (67)	16.7 (19)	26.1 (29)	0.0 (0)
Do you think CRC can be cured?	67.8 (78)	1.7 (2)	30.4 (35)	0.0 (0)
Found stool blood test (FOBT) specific				
Believe more than half (≥ 5) of 10 people they know had test in past year	3.5 (4)	37.4 (44)	16.5 (19)	22.6 (26)
Believe 0 out of 10 people they know had test in past year	39.0 (38)	40.9 (41)	16.5 (16)	33.6 (33)
Believe this is an accurate test	38.4 (58)	35.7 (55)	23.4 (36)	0.0 (0)
Believe FOBT is too embarrassing	13.2 (18)	67.6 (98)	6.9 (11)	0.0 (0)
Believe FOBT is too upsetting	7.8 (10)	68.4 (100)	6.9 (11)	0.0 (0)
Believe FOBT is too time consuming	7.0 (9)	66.9 (100)	3.0 (4)	0.0 (0)
If something found would rather not know	4.3 (5)	82.2 (104)	1.7 (2)	1.7 (2)
You should do, even if feeling fine	79.1 (93)	22.2 (24)	6.5 (7)	0.0 (0)
Believe doing test would lessen worry about getting CRC	59.2 (68)	27.0 (31)	12.2 (14)	1.7 (2)
Believe health insurance would pay for test	66.2 (78)	6.5 (8)	29.4 (34)	0.0 (0)
Believe they know where to get a stool blood test	59.3 (68)	34.8 (40)	5.2 (6)	0.0 (0)
Flexible sigmoidoscopy specific				
Believe more than half (≥ 5) of 10 people they know had test in past 5 years	0.0 (0)	42.6 (48)	9.6 (11)	47.0 (54)
Believe 0 of 10 people they know had test in past 5 years	57.7 (58)	21.7 (23)	9.6 (11)	42.0 (50)
Believe this is an accurate test	25.7 (34)	8.1 (11)	36.6 (43)	3.7 (5)
Believe test is too painful	39.1 (45)	48.0 (54)	30.0 (35)	0.0 (0)
Believe test is too embarrassing	31.2 (38)	68.9 (79)	6.1 (7)	3.7 (5)
Believe test is too upsetting	20.0 (25)	65.0 (77)	9.6 (11)	3.5 (4)
Believe test is too time consuming	10.4 (13)	71.3 (82)	16.0 (19)	3.7 (5)
If something found would rather not know	2.6 (3)	90.3 (102)	7.0 (8)	2.4 (3)
You should do, even if feeling fine	83.5 (97)	12.5 (15)	12.2 (14)	0.0 (0)
Believe doing test would lessen worry about getting CRC	67.0 (77)	14.5 (17)	15.7 (18)	0.0 (0)
Believe health insurance would pay for test	63.0 (73)	3.4 (4)	32.4 (38)	0.0 (0)
Believe they know where to get a flexible sigmoidoscopy	60.5 (71)	27.0 (31)	8.7 (10)	0.0 (0)

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Table 3.

Table 4. Barriers and social support relevant to colorectal cancer (CRC) in study sample

	% Yes (number)	% No (number)	% Don't know (number)	% Helped/ Not Applicable (number)
Barriers: FOBT specific:				
Having to call physician to request kit	9.6 (11)	87.0 (100)	2.4 (0)	0.9 (1)
Having to get stool samples from nurse	15.7 (18)	81.7 (94)	1.7 (0)	0.9 (1)
Gave less than samples	10.4 (12)	88.7 (102)	0.8 (0)	0.9 (1)
Having to mail kit	11.3 (13)	87.0 (100)	0.9 (1)	0.9 (1)
Not using water	8.7 (10)	88.7 (102)	1.7 (0)	0.9 (1)
Not using red meat	5.2 (6)	93.0 (107)	0.9 (1)	0.9 (1)
Not eating raw fruits, vegetables, walnuts, orange juice, radishes, kumquats, or fermented/branched any of the above plant-based dietary restrictions	15.7 (18)	84.3 (97)	0.8 (0)	0.8 (0)
Barriers: Flexible sigmoidoscopy specific:				
Having to take an enema	58.7 (68)	41.3 (48)	0.0 (0)	2.4 (3)
Having to consume clear liquids for a day	35.9 (42)	64.1 (75)	0.0 (0)	1.7 (2)
Having to take half-day off work	15.7 (18)	84.3 (97)	0.0 (0)	1.7 (2)
Having to make an appointment with doctor	3.5 (4)	96.5 (109)	0.0 (0)	1.7 (2)
Having to get transportation to doctor	10.4 (12)	89.6 (103)	0.0 (0)	1.7 (2)
Physician advice and social support				
Believe physician wants them to have FOBT	36.5 (42)	63.5 (74)	0.0 (0)	26.2 (30)
Believe physician wants them to have flexible sigmoidoscopy	20.0 (23)	80.0 (94)	0.0 (0)	48.7 (56)
Believe someone other than physician wants them to have FOBT	35.2 (39)	64.8 (74)	0.0 (0)	0.0 (0)
Believe someone other than physician wants them to have flexible sigmoidoscopy	12.2 (14)	87.8 (101)	0.0 (0)	0.0 (0)
Parent someone who encouraged them to have FOBT in past 2 years	34.3 (39)	65.7 (76)	0.0 (0)	23.8 (27)
Parent someone who encouraged them to have flexible sigmoidoscopy in past 5 years	13.9 (16)	86.1 (99)	0.0 (0)	48.7 (56)
Parent someone other than PCP who could convince them to have FOBT	10.4 (12)	89.6 (103)	0.0 (0)	24.2 (28)
Parent someone other than PCP who could convince them to have flexible sigmoidoscopy	3.5 (4)	96.5 (109)	0.0 (0)	48.7 (56)

FOBT, fecal occult blood test; PCP, primary care physician.

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Table 4.

Physician advice and social support

Only 36.5% reported believing that their physician wanted them to perform an FOBT (Table 4). Even fewer (20.0%) reported believing that their physician wanted them to have a flexible sigmoidoscopy. Interestingly, 83.5% (n = 96) said they would ask their doctor about a medical test they thought would be good for them, even if their doctor did not mention it first (data not shown). In general, participants did not report anyone other than their physician, who would want them to be screened, would encourage them to be screened, or could convince them to be screened for CRC.

Correlates of screening

Participants were categorized as being screened or unscreened (Table 5). Screened individuals were those who had either done an FOBT in past 2 years, had had a flexible sigmoidoscopy in the past 5 years, or had had a colonoscopy in the past 10 years; all others were unscreened. Active outside encouragement to have a flexible sigmoidoscopy within the past 5 years was the only variable significantly related to screening status. Several other variables approached significance, but did not reach the $p < 0.05$ level.

Correlates of intention to screen

Unscreened participants were further classified based on their intention to be screened within the next 6 months. There were several significant differences between these groups (Table 6). The belief that doing an FOBT would be too upsetting was negatively related to intention to be screened by FOBT within the next 6 months. Conversely, the beliefs that one should do an FOBT despite feeling fine, or because it would lessen worry about getting CRC, were positively related to intention to be screened.

DISCUSSION

The data suggest that these 115 men and women-aged 53 years and older, who live in the New York City metropolitan area and work in health care settings (or whose spouses work in health care settings)-had many inaccurate beliefs about CRC and CRC screening. In general, participants had a fairly good awareness of CRC (87% had heard of the disease) and an understanding of its magnitude relative to other diseases. The fact that more than half of the participants could not name a CRC screening test needs to be addressed.

Misconceptions about perceived susceptibility to CRC, about the often asymptomatic nature of the disease, about normative screening behavior of peers, and the accuracy of FOBT and flexible sigmoidoscopy were common. Of concern was that only 36.5% of participants reported believing their physician wants them to do an FOBT; fewer yet (20.0%) reported believing their physician wants them to have a flexible sigmoidoscopy done. When asked who could convince them to do an FOBT, only 10.4% named someone other than their physician; even fewer (3.5%) reported someone could convince them to have a sigmoidoscopy, yet 83.5% expressed willingness to inquire about a test. Among the currently unscreened, the belief that doing an FOBT would be too upsetting was negatively associated with intention to be screened by FOBT within the next 6 months. Conversely, the beliefs that one should do an FOBT despite feeling fine, or because it would lessen worry about getting CRC, were positively associated with intention to be screened. The failure of other variables to be predictive of intention to be screened, or with ever having been screened, implores us to be creative in examining other avenues of

questioning.

This pilot study had several limitations. The sample was one of convenience; thus, the findings cannot be generalized. The sample size was small, limiting statistical power. Moreover, screening status was based on self-report. In addition, the design was cross-sectional, precluding any causal inferences. While there are clearly populations that may be at higher risk for CRC, this sample still falls short of the year 2010 goal, which is distressing given their income and education levels as well as their employment in health care settings (i.e., mainly as service workers in hospitals/health care, etc.). Despite having medical insurance, and being connected to the health field, misinformation and misconceptions about CRC and CRC screening were common.

IMPLICATIONS AND

Table 5. Select characteristics stratified by individuals screened versus unscreened*

	Screened % (number)	Unscreened % (number)	χ^2	p
Believe CRC would affect you personally				
Yes (n = 54)	53.7 (28)	46.3 (25)		
No (n = 38)	31.6 (12)	48.4 (26)	3.07	0.08
Believe persons with CRC would have symptoms				
Yes (n = 67)	55.2 (27)	44.5 (23)		
No (n = 58)	27.9 (9)	73.2 (33)	3.25	0.07
Believe you know where to go to get a flexible sigmoidoscopy				
Yes (n = 73)	47.9 (25)	50.1 (28)		
No (n = 51)	25.9 (9)	74.2 (33)	3.03	0.08
Anyone encouraged you to have flexible sigmoidoscopy in past 5 years				
Yes (n = 56)	61.2 (32)	38.8 (21)		
No (n = 43)	34.9 (13)	65.1 (35)	4.28	0.034

*Screened, fecal occult blood test (FOBT) in past 2 years, flexible sigmoidoscopy in past 5 years, or colonoscopy in the past 10 years; unscreened, all others.
 χ^2 with continuity correction.

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Table 5.

Table 6. Select characteristics stratified by intention to screen within the next 6 months*

	FOBT		χ^2	p
	Intend	Do not intend		
Believe you are getting it				
Yes (n = 61)	61.0 (38)	100.0 (0)		
No (n = 58)	44.8 (26)	55.2 (32)	4.19	.04
Believe you should do even if feeling fine				
Yes (n = 52)	43.1 (24)	70.9 (27)		
No (n = 61)	61.0 (38)	100.0 (0)	4.55	.03
Believe you would be worried about getting CRC				
Yes (n = 59)	61.0 (38)	48.7 (19)		
No (n = 51)	18.0 (9)	56.7 (28)	4.99	.03

FOBT, fecal occult blood test.
 *Unscreened within 6 months.
 χ^2 with continuity correction.

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Table 6.

FUTURE STEPS

The results of this study helped guide the development of a telephone-based health education intervention to increase CRC screening rates. Subjects for the main Healthy Colon Project trial are currently being recruited from the same cohort of 1199 NBF participants. This pilot study suggested areas that could be profitably targeted. Dispelling inaccurate beliefs about CRC is an important goal for the intervention. People should know that age alone is a substantial risk factor for CRC, that CRC and/or polyps can be present without symptoms, CRC is both preventable and curable, and the cure rate is highly dependent on stage at diagnosis. Subjects in the Healthy Colon Project should be made aware that FOBT and flexible sigmoidoscopy are fully reimbursable through their health care fund. Barriers to CRC screening measured in this pilot study were test-specific. Thus there is value in establishing a patient's preference for FOBT or flexible sigmoidoscopy because the barriers to each are distinct. Barriers to CRC screening may be more effectively overcome once the interventionist can focus problem-solving efforts.

The participants in this pilot study displayed a high degree of cooperation, as evidenced by their willingness to engage in detailed telephone discussions about CRC and CRC screening tests. High percentages reported having a regular primary care doctor and having a routine checkup within the past 2 years. It was encouraging that so many interviewed reported that they would ask their doctor about a medical test they thought would be good for them, even if their doctor did not mention it first. It is speculated that the low rate of CRC screening in this age-eligible, well-insured sample implies that the topic of CRC is not being discussed and that three-day FOBT tests are not being offered by physicians. An important goal of the intervention for the Healthy Colon Project will be to help participants take a proactive role in receiving CRC screening.

[Sidebar]

To successfully promote CRC screening, a necessary first step is improved understanding of factors influencing individuals' choices.

[Sidebar]

For flexible sigmoidoscopy, the primary barrier was the need to take an enema prior to the test.

[Reference]

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