Relationships between health behaviours, medical history, and perceived risk of developing colorectal cancer among screening invitees: do these vary between males and females?

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Introduction:

Several studies suggest colorectal cancer screening uptake is lower among men than women. Ireland's first population-based pilot screening programme for colorectal cancer began in 2008. The Adelaide and Meath Hospital/Trinity College Dublin Colorectal Cancer Screening Programme (TTC-CRC-SP) has now completed two screening rounds among a target population of 10,000 people.

Aims:

Among TTC-CRC-SP invitees we investigated various aspects of participant's lives, lifestyles, health behaviours, and medical history, with a particular focus on exploring gender differences.

Methods

At the beginning of the second screening round, along with the screening invitation and a faecal immunochemical kit (FIT), a sample of screening invitees received a short postal questionnaire. This included open and closed questions on socio-demographics, risk of developing colorectal cancer, family history of colorectal cancer, bowel symptoms, diet and smoking. Data was analysed in Stata using X^2 tests.

Results:

1845 completed surveys were received, 42% from men and 58% from women. 39% of respondents were aged less than 60 and 51% aged 60-69; 40% reported having private health insurance; and 21% described themselves as smokers. There were no differences between men and women in terms of age, private health insurance and smoking status (Table 1).

Family History

- A higher proportion of women than men had a family history of colorectal cancer (17% v 10%: p<0.05; Figure 1) and more felt at risk of developing colorectal cancer (17% v 12%: p<0.05; Figure 2).

Bowel symptoms

- Overall 41% reported that they had one or more of 7 possible bowel symptoms, and this proportion was higher among women than men (43% v 35%: p<0.05; Figure 3). Those who reported having bowel symptoms felt at greater risk of developing colorectal cancer (27% v 7%: p<0.05).

Balanced diet

- While significantly fewer men reported having a balanced diet (65% v 74%: p<0.05; Figure 4), those who ate a balanced diet felt less at risk of developing colorectal cancer (76% v 68%: p<0.05). Significantly more participants who did not have a balanced diet reported bowel symptoms (50% v 37%: p<0.05).

Smoking

- While there was no association between smoking and feeling at risk of colorectal cancer, significantly more smokers reported bowel symptoms (46% v 40%: P<0.05).

Table 1: Respondents' characteristics

		Female		Male		P value
		%	N	%	N	
Sex		57.9	1069	42.1	776	
Age	<60	39.2	412	37.6	287	0.605
	60-69	51.2	538	51.6	394	
	70+	9.6	101	10.9	83	
Employment status	Employed	26.1	263	30.3	228	<0.05*
	Housekeeping	8.4	85	0.1	1	
	Retired	41.3	417	51.1	384	
	Self-employed	0.0	0	0.3	2	
	Unemployed	24.2	244	18.2	137	
Private health insurance	No	60.1	582	59.1	435	0.67
	Yes	39.9	386	40.9	301	
Family history of CRC	Don't Know	1.9	19	2.6	19	<0.05*
	No	81.0	816	87.1	642	
	Yes	17.2	173	10.3	76	
Current smoker	No	79.2	838	78.2	600	0.613
	Yes	20.8	220	21.8	167	

Figure 1: Do you have a family history of colorectal cancer?

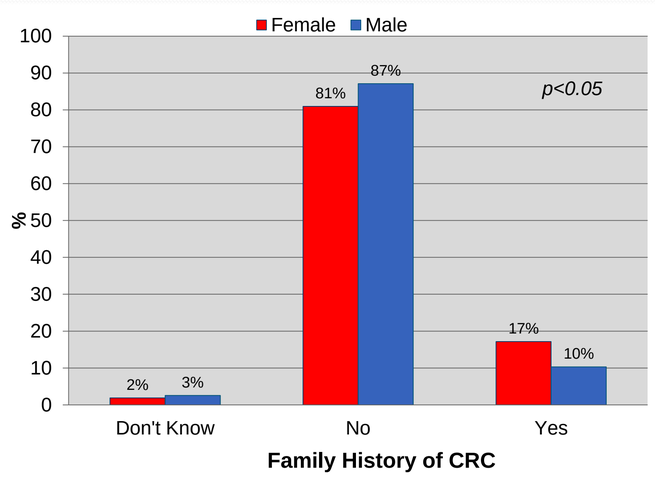


Figure 2: Do you feel at risk of developing colorectal cancer?

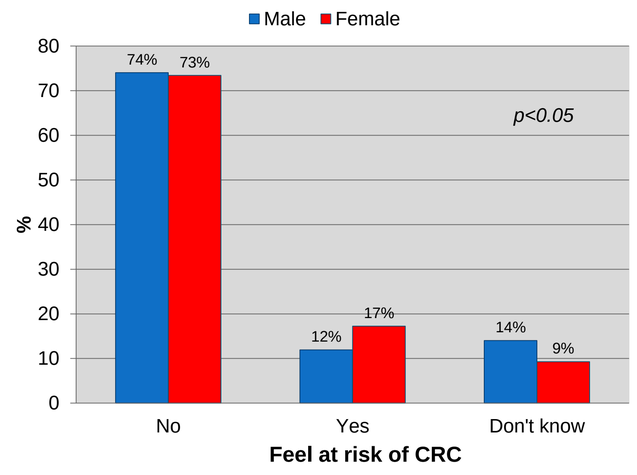


Figure 3: Do you have bowel symptoms?

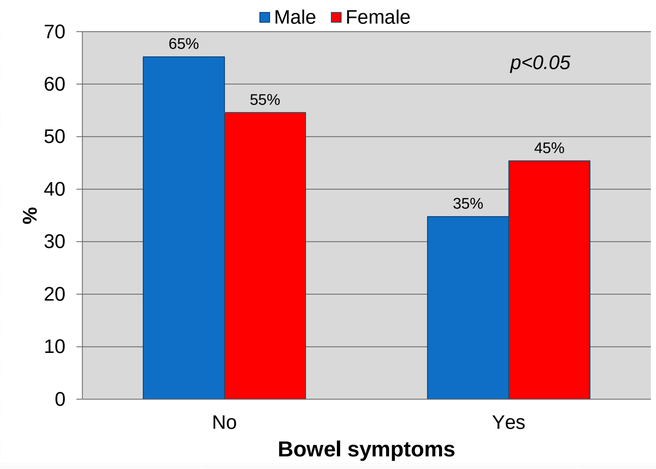
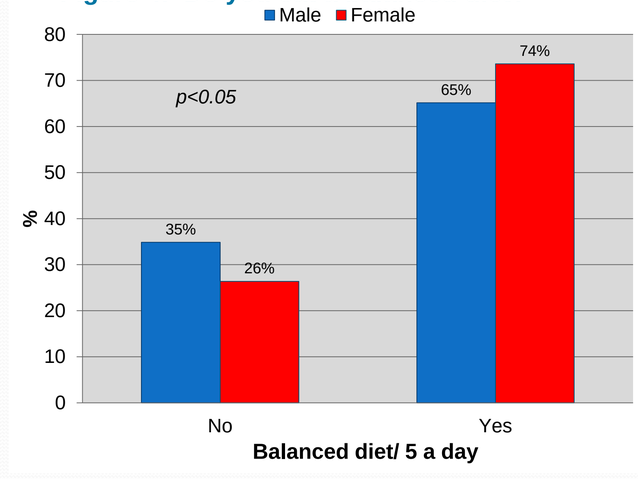


Figure 4: Do you eat a balanced diet?



Conclusions

Lifestyle, symptoms and beliefs about colorectal cancer risk were inter-related and gender differences were observed. Notably, the higher response rate in women was mirrored by higher uptake among women in the screening programme. These results indicate a need for greater understanding of the factors that influence FIT-based colorectal cancer screening uptake, and particularly how these differ between males and females.

The National Cancer Registry is funded by the Department of Health

Nicholas Clarke is funded by an Irish Cancer Society Research Scholarship Grant