

Patient Perceptions and Attitudes towards Early Onset Colorectal Cancer Screening in Hong Kong: A Cross-sectional Study



Junjie HUANG, Claire Chenwen ZHONG, Martin C.S. WONG

JC School of Public Health and Primary Care, The Chinese University of Hong Kong



Introduction

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- Early Onset Colorectal Cancer** (EOCRC) is an emerging public health issue in Hong Kong, particularly among individuals aged 40 to 49.
- Gaining insights into their perceptions, attitudes, and experiences regarding **colorectal cancer screening** methods is vital for formulating effective interventions aimed at enhancing participation rates.

Aims

This study aims to explore the **perceptions, attitudes, and experiences** of Hong Kong residents aged 40 to 49 concerning colorectal cancer (CRC) screening methods, specifically **fecal immunochemical testing (FIT)** and **colonoscopy**, while also evaluating the acceptance of an EOCRC screening policy.

Method

- A cross-sectional study was conducted in Hong Kong from April to June 2024, targeting residents **aged 40 to 49**. Participants' perceptions and attitudes toward EOCRC screening methods and the acceptance of the screening policy were assessed through an anonymous survey based on the **Health Belief Model** (HBM).
- Questionnaires were distributed to 7,576 individuals via Qualtrics, resulting in **1,029** eligible responses and a compliance rate of 13.6%.
- Linear regression was employed to analyze participant characteristics and compare demographic factors between those willing and unwilling to participate.
- Multivariate logistic regression** assessed predictors of attitudes toward CRC screening, while a parallel multiple mediator model examined the direct and indirect effects on willingness to participate.

Results

- Results Of the 1,029 responses analyzed, **785** individuals (**76.29%**) expressed a willingness to undergo EOCRC screening.
- 352 participants (**34.2%**) indicated a readiness to pay 450 HKD out of 500 HKD for primary CRC screening.
- Those reporting poor perceived health, negative health perceptions, psychological barriers to FIT, low self-efficacy, and a lack of cues for action were less inclined to participate.
- The parallel mediation analysis revealed a significant total effect of **knowledge** on **willingness to participate** ($\beta=0.015$, $p=0.044$), although the direct effect was not significant ($\beta=-0.010$, $p=0.204$).
- Significant indirect effects were observed through **perceived benefits** ($\beta=0.006$, $p=0.047$) and **cues to action** ($\beta=0.014$, $p<0.001$), indicating a suppressing effect.

Conclusions

- This study underscores the generally **positive attitudes** of Hong Kong residents toward **EOCRC screening**.
- However, **negative perceptions, psychological barriers**, and **low self-efficacy** hinder participation.
- To enhance participation rates, educational campaigns are essential for improving **knowledge** and **perceptions** of screening benefits. Additionally, supportive government policies should facilitate increased screening involvement.
- Future research should focus on these factors, develop effective implementation strategies, and evaluate the cost-effectiveness of screening initiatives to improve public health outcomes.

Fig 1. Participant characteristics by willingness to participate CRC screening

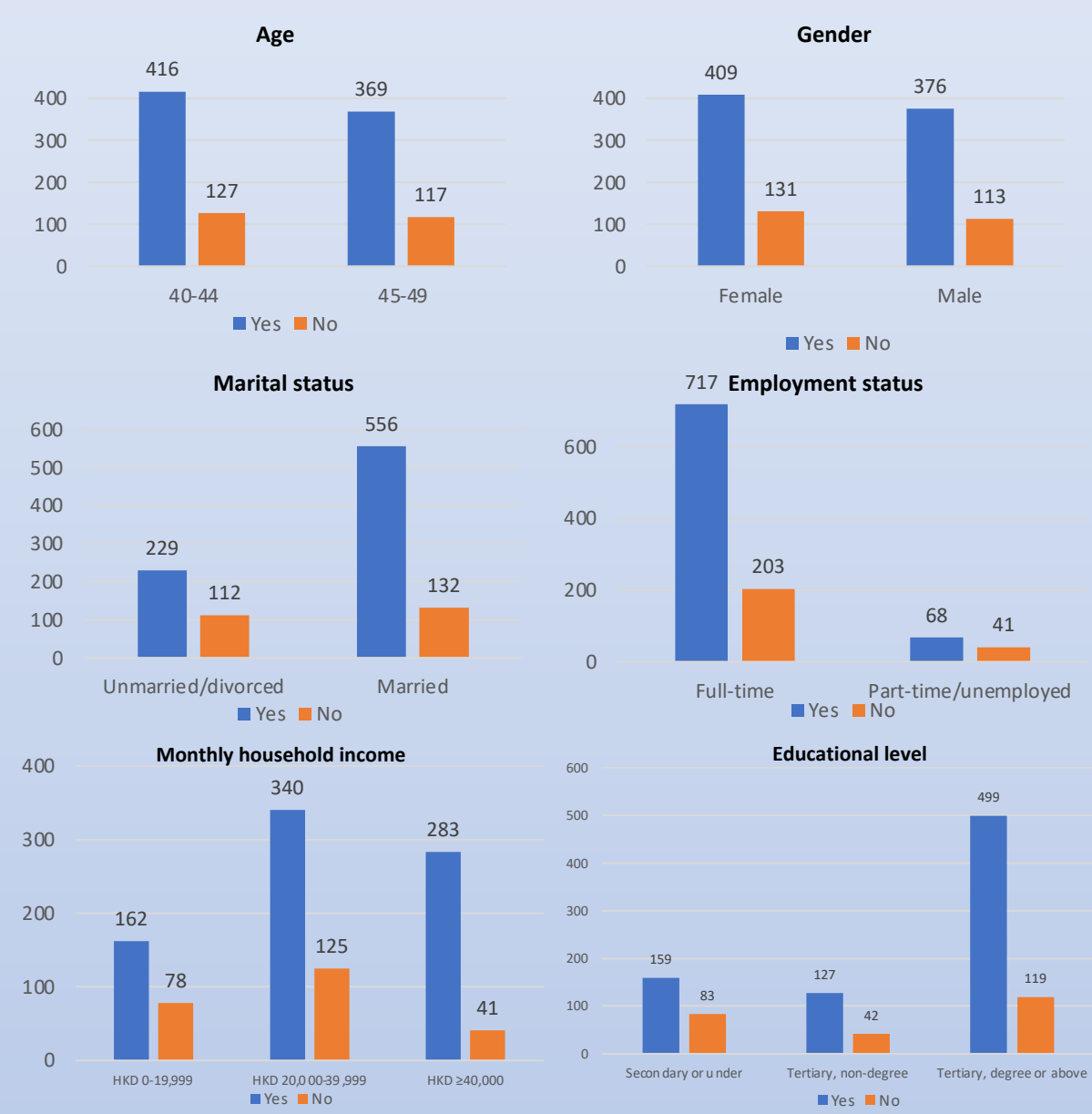


Table 1. Factors of willingness to participate in CRC screening

Variables	Crude odd ratio (95% CI)*	P-value	Adjusted odd ratio (95% CI)	P-value
Marital status				
Unmarried/divorced	ref	<0.001	ref	0.032
Married	2.060(1.534-2.767)		1.447(1.033-2.028)	
Employment status				
Part-time/unemployed	ref	<0.001	ref	0.033
Full-time	2.130(1.402-3.234)		1.737(1.046-2.882)	
Self-perceived health status				
Good	ref	<0.001	ref	0.007
Bad	0.535(0.4-0.715)		0.615(0.433-0.873)	
Chronic disease				
No	ref	<0.001	ref	0.006
Yes	1.713(1.282-2.289)		1.619(1.146-2.287)	
Perceived barrier health and psychological (FIT)				
Low	ref	0.102	ref	0.049
High	0.784(0.586-1.05)		0.697(0.487-0.999)	
Perceived benefits of colonoscopy				
Low	ref	<0.001	ref	0.026
High	3.328(2.304-4.809)		1.733(1.069-2.811)	
Perceived barrier health and psychological (colonoscopy)				
Low	ref	0.577	ref	0.012
High	0.921(0.69-1.23)		0.640(0.452-0.907)	
Self efficacy				
Low	ref	<0.001	ref	<0.001
High	4.915(3.146-7.679)		2.628(1.572-4.394)	
Cues for action				
Low	ref	<0.001	ref	<0.001
High	4.985(3.504-7.093)		3.217(2.185-4.737)	