ISRCTN19611025 https://doi.org/10.1186/ISRCTN19611025

Participation in colorectal cancer screening among asymptomatic average-risk Chinese aged 50 to 75: A population-based survey

Submission date
21/08/2019

Recruitment status
No longer recruiting

Registration date
23/08/2019

Overall study status
Completed

Last Edited
04/01/2023

Condition category
Cancer

[X] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
Colorectal cancer is the first and second most common cancer among male and female respectively in Hong Kong. In September 2016, the Department of Health launched a three-year voluntary colorectal cancer screening pilot programme in Hong Kong and subsidised eligible Hong Kong Chinese to undergo fecal immunochemical tests (FIT). Despite the success of the programme in the detection of adenoma and adenocarcinoma (cancer), the overall screening participation rate in the programme was only 8.3%. The decision on whether to go for a test or not could be related to a few reasons or factors that influence individuals' behaviours. In 2019, the implementation of Government-subsidised colorectal cancer screening programme to Hong Kong Chinese has been regularized and whether such subsidies will change people's intention and their final decision on whether to participate in the screening or not still remain unknown. In order to inform further health-promoting intervention and enhance the screening uptake, it is necessary to understand the participation of colorectal cancer screening among asymptomatic Chinese and the associated factors.
Aim of the study: To assess the colorectal cancer screening participation among the asymptomatic average-risk population of HK Chinese aged 50 to 75 and to identify the association between predisposing, enabling and need factors, personal health practice and colorectal cancer screening participation.

Who can participate?
Hong Kong Chinese aged 50 to 75 years with no history of colorectal cancer

What does the study involve?
Participants will take part in a telephone survey regarding their general health

What are the possible benefits and risks of participating?
The study finding may help to improve understanding of the influence of individual and community factors on Hong Kong Chinese in the use of colorectal cancer screening. The findings may also inform the revision of current promoting strategies and intervention to increase and enhance colorectal cancer screening uptake. There are no risks.

Where is the study run from?
Faculty of Medicine, The Chinese University of Hong Kong

When is the study starting and how long is it expected to run for?
August 2019 to June 2020

Who is funding the study?
Faculty of Medicine, The Chinese University of Hong Kong

Who is the main contact?
Dr Dorothy Chan
dorothycns@cuhk.edu.hk

Contact information

Type(s)
Public

Contact name
Dr Dorothy Chan

ORCID ID
http://orcid.org/0000-0001-6848-9947

Contact details
Rm 812, 8/F, Esther Lee Building
The Chinese University of Hong Kong
Shatin
Hong Kong
China
-
+852 39438165
dorothycns@cuhk.edu.hk

Additional identifiers

EudraCT/CTIS number
Nil known

IRAS number

ClinicalTrials.gov number
Nil known

Secondary identifying numbers
2019.396

Study information

Scientific Title
Participation in colorectal cancer screening among asymptomatic average-risk Chinese aged 50 to 75: A population-based survey

Study objectives
To explore the factors associated with colorectal cancer screening behavior

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 19/08/2019, Ethics committee of the Joint Chinese University of Hong Kong - New Territories East Cluster (8/F, Lui Che Woo Clinical Sciences Building, Prince of Wales Hospital, Shatin, Hong Kong SAR, NT, China; +852 2144 5926), ref: 2019.396

Study design
Cross-sectional study

Primary study design
Observational

Secondary study design
Cross sectional study

Study setting(s)
Community

Study type(s)
Screening

Participant information sheet
Not available in web format, please use the contact details below to request a patient information sheet

Health condition(s) or problem(s) studied
Colorectal cancer

Interventions
Participants will be recruited via telephone using random sampling. A random digit dialling approach will be used to ensure that households in different districts and individuals have an equal opportunity to be contacted. Any respondent meeting the inclusion criteria will be invited to join the study. For any household with more than one respondent, the respondent with the birthday closest to the interview date will be invited to join. When a number cannot be reached at the first attempt, at least two more attempts will be made at different times on various days of the week.

The study will involve a structured survey guided by the Andersen Behavioral Model in data collection. The survey consists of five sections, namely:
1. Socio-demographic data (predisposing and enabling factors)
2. Perceived and evaluated health status
3. Personal health practice

4. Screening intention and participation
5. Health beliefs
(Chinese version of the survey will be used in the study)

Data will be summarized and presented using appropriate descriptive statistics. Normality of continuous variables will be assessed using skewness and kurtosis statistics and graphically by normal probability plot. Appropriate transformations will be made on skewed variables to correct their skewness before being entered statistical analyses. The primary outcome variables of the study are uptakes of a colorectal cancer screening, namely FOBT and colonoscopy. Logistic regression will be used to examine influencing factors associated with each of the outcomes. Univariate analysis of each of the potential influencing factors associated with each of the outcomes will be performed using binary logistic regression. Those factors with $p < 0.25$ will be selected as candidate independent variables for multivariable logistic regression to delineate factors independently associated with each outcome. Subgroup analysis will also be done to reveal any difference between male and female participants. The goodness-of-fit of the final multivariable logistic regression models for each outcome will be assessed by Hosmer-Lemeshow test, the results of the model will be presented by the odds ratios (OR) and their associated 95% confidence intervals (CI) of the factors retained in the model.

Intervention Type
Other

Primary outcome measure
Fecal occult blood test uptake and colonoscopy uptake assessed by medical history interview at baseline.

Secondary outcome measures
Intention to have fecal occult blood test assessed by interview at baseline

Overall study start date
22/02/2019

Completion date
30/12/2020

Eligibility

Key inclusion criteria
1. Hong Kong Chinese aged 50 to 75 years
2. Absence of symptoms suggestive of colorectal cancer, such as a change in bowel habits in the past month, melena, weight loss of more than 5 kilograms in the past six months
3. No history of colorectal cancer
4. Able to understand or communicate in Cantonese

Participant type(s)
Healthy volunteer

Age group
Adult

Sex
Both

Target number of participants
1316

Total final enrolment
1317

Key exclusion criteria
1. Hearing impairment

Date of first enrolment
26/08/2019

Date of final enrolment
30/04/2020

Locations

Countries of recruitment
China

Hong Kong

Study participating centre
The Chinese University of Hong Kong
Rm 812, 8/F
Esther Lee Building
The Chinese University of Hong Kong
Shatin, NT
Hong Kong
China
NT

Sponsor information

Organisation
The Nethersole School of Nursing

Sponsor details
The Chinese University of Hong Kong
Shatin
Hong Kong
China

NT
39438174
nursing@cuhk.edu.hk

Sponsor type
University/education

ROR
https://ror.org/00t33hh48

Funder(s)

Funder type
University/education

Funder Name
Faculty of Medicine, The Chinese University of Hong Kong

Results and Publications

Publication and dissemination plan
Produce 2 manuscripts in a high-impact peer-reviewed journal and present in 3 international conferences

Intention to publish date
30/06/2021

Individual participant data (IPD) sharing plan
All data generated or analysed during this study will be included in the subsequent results publication

IPD sharing plan summary
Other

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		20/06/2022	04/01/2023	Yes	No