Asia-Pacific Journal of Oncology Nursing 10 (2023) 100287

Contents lists available at ScienceDirect

Asia-Pacific Journal of Oncology Nursing

journal homepage: www.apjon.org

Original Article

A young adult community health advisor-led intervention to increase colorectal cancer screening uptake among South Asians: A feasibility study

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ARTICLE INFO

Keywords:
Colorectal cancer
Colorectal cancer screening
Uptake
Health disparity
South Asians
Community health advisor

ABSTRACT

Objective: The present study explored the feasibility and acceptability of a young adult community health advisor (YACHA)-led intervention among South Asians aged between 50 and 75 years in Hong Kong.
Methods: A pilot randomized controlled trial was conducted from July to November 2022. Thirty-six eligible participants were randomized to either the YACHA-led intervention ($n = 19$) or the control group ($n = 17$). The study outcomes were measured at baseline and 4 weeks after baseline.
Results: A total of 36 eligible South Asian participants with a mean age of 56.00 years (SD = 5.53) participated in the study. The consent rate was 100.0%, and the overall dropout rate among the participants was 11.1%. The proposed YACHA-led intervention components were implemented as planned with the intended modality and frequency. More than 90% of the participants showed the acceptance of and satisfaction with a YACHA-led intervention that they received during the month-long process of undergoing colorectal cancer screening.
Conclusions: The present study revealed that it was feasible to conduct a YACHA-led intervention to increase the utlization of colorectal cancer screening by eligible South Asians in Hong Kong. A full-scale study should be conducted to reveal its effects and to explore whether the participants would continue their participation in the colorectal cancer screening program and be screened for colorectal cancer annually or biannually, as recommended by the Hong Kong government.
Trial registration: This study was registered with the Chinese Clinical Trial Registry (ChiCTR2200058241).

Introduction

Globally, colorectal cancer (CRC) is the third and second most commonly diagnosed cancer in males and females, accounting for 1.9 million new cases and 935,000 deaths in 2020.[1] The age-standardized incidences of CRC per 100,000 persons in males and females in 2020 were 23.4 and 16.2, respectively.[2] In Hong Kong, CRC is the second most common cancer, and 5087 new CRC cases were reported in 2020.[3] Despite the increase in prevalence rate related to CRC, in most cases, CRC can be detected early through various cancer screening tests, such as the fecal immunochemical test (FIT), sigmoidoscopy, and colonoscopy.[4] Although CRC screening tests are available, CRC screening uptake is substantially lower among ethnic minorities (EMs) than the general population in Western countries and Hong Kong.[5,6] For example, a comparative study showed that the CRC screening uptake was significantly lower among South Asian EMs than the general population in Hong Kong (10% vs. 25%).[6] Previous studies have revealed that the disparities in CRC screening uptake between different EM groups and the general population are associated with various factors, such as cultural stigma, educational differences, language barriers, inadequate health professional recommendations, lack of knowledge about cancer and screening programs, and poor access to health information and screening services.[4,6–9]

The evidence shows that family-based and community health worker-led interventions effectively increased cancer screening uptake among EM populations. For instance, a randomized controlled trial was conducted in Hong Kong to examine the effectiveness of a family-based multimedia intervention in increasing the uptake of CRC screening among older South Asian EM adults.[9] This study utilized family members as resources to increase FIT uptake by these older adults, and significantly higher FIT uptake was observed among the intervention group participants than the control group participants. However, despite its effectiveness, the study had some limitations. Some South Asian older adults had family members who were occupied with their jobs, and others did not have family members or lived alone. These older adults were not able to receive family support, and therefore, the problem of

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https://doi.org/10.1016/j.apjon.2023.100287
Received 1 June 2023; Accepted 1 August 2023

lack of access to CRC screening services persisted. Community health advisor (CHA)-led interventions are also commonly adopted to increase CRC screening service utilization among EMs. Such interventions reduce the barriers that limit EMs from accessing various healthcare facilities.[10–17] CHAs are trusted members of and/or have a profound understanding of the community that they serve.[18] CHAs are also known as community health workers, lay health community workers, promotors, and patient navigators.[8] The term 'community health advisor' is used here. CHA serves as a health and cultural brokers and navigators, as they share the same cultures, languages, and religions of community members and can meaningfully address norms related to health and well-being.[19,20]

The government of Hong Kong has implemented a fully subsidized Colorectal Cancer Screening Program (CRCSP) since 2020, and the average risk Hong Kong residents aged between 50 and 75 years are recommended to undergo CRC screening with FIT every two years in the private sector.[21] To join the CRCSP, people must first register with the Electronic Health Records Sharing System (eHealth), and they can then locate a primary care doctor (PCD) for medical consultation.[21,22]

According to the 2021 population by-census in Hong Kong, more than 65% of EMs (excluding foreign domestic helpers) works long hours in low-paying elementary occupations and more than 20% of Hong Kong's EM population lives alone.[23–25] Older members of EMs tend to have lower levels of education than younger members of their community.[23–26] Among younger South Asians who are at least 15–40 years of age, more than 36% have attained postsecondary education and can speak or understand Chinese, the language used by the majority of the population.[23,27] In addition, these younger individuals are more likely than older adults to be proficient in the use of digital technology and to have a better understanding of South Asian culture and Hong Kong's healthcare system. Providing training to young adult members to be CHAs may be a way to overcome older people's difficulties in using electronic devices for eHealth, registration and searching for local service providers, as well as language barriers and the absence of support from family members.

Therefore, it was of interest to determine the feasibility and acceptability of recruiting younger South Asians to act as young adult CHAs (YACHAs) who provide interventions aimed at supporting older South Asian adults who did not receive any support from family members in accessing CRC screening. Hence, this pilot study was conducted.

According to Eldridge et al., feasibility and pilot studies are smaller-scale studies that are conducted in preparation for a major study and are meant to evaluate study design features that are being proposed for use in the planned main study.[28,29] These studies improve the implementation of study interventions because they help uncover practical issues and barriers that need to be addressed.[30] A randomized design is recommended for a pilot study because it provides the most robust estimates for the potential effects of implementation strategies.[28,29]

Methods

Design

A two-arm parallel group pilot randomized controlled trial was conducted to evaluate the feasibility and acceptability of a YACHA-led intervention to improve the uptake of CRC screening among South Asian EMs in Hong Kong aged between 50 and 75 years with an average risk for CRC. The present study was carried out from July to November 2022. This study was registered with the Chinese Clinical Trial Registry (ChiCTR2200058241).

Study setting and participants

The study was conducted in a community setting in Hong Kong. Therefore, the study eligibility criteria were in line with the CRCSP, including the eligibility criteria.[21] Participants had to (1) be from a South Asian EM group (from India, Nepal, or Pakistan in this study), aged from 50 to 75, and living alone or not having family members available to help them attend a screening appointment; (2) hold a Hong Kong Identity Card or Certificate of Exemption; (3) have no prior personal history of CRC; (4) have no prior history of colectomy; (5) have no signs or symptoms suggestive of CRC; (6) have no history of CRC screening and have not undergone a FIT in the past 2 years, a sigmoidoscopy examination in the past 5 years, or a colonoscopy in the past 10 years; (7) be able to sign the informed consent form; (8) be willing to be randomly assigned to the control or intervention group. Participants with serious medical conditions, such as chronic inflammatory bowel disease, or a history of abdominal or pelvic radiation for previous cancer and those who were not advised to receive CRC modalities, such as a colonoscopy, flexible sigmoidoscopy, and FIT, were excluded from the study.

Sample size planning

A minimum sample size of 12 participants in each allocation group is recommended for feasibility studies.[31] Accounting for attrition, we recruited 36 eligible individuals and randomized them into two groups: a YACHA-led intervention group and a control group.

Randomization and blinding

A total of 36 eligible individuals were recruited and invited to complete the baseline survey. After we obtained their informed consent and baseline data, the participants were randomly assigned to either the YACHA-led intervention group or the control group in a 1:1 ratio using a randomized block design. An independent statistician, who was blinded to the ethnicity of the participants and the details of the initial data collection, generated a random allocation sequence. Allocation was concealed by using sequentially numbered, opaque, and sealed envelopes. The YACHA could not be blinded to group allocations because of the nature of the study, the participants, and the method of delivery of interventions.

Intervention group

A comprehensive multimedia health intervention guided by five major components of the Health Belief Model to increase the uptake of CRC screening with a FIT among South Asians was adopted from previous studies.[9,32] The multimedia intervention also incorporated three components recommended by a previous systematic review: educational health talks, phone follow-ups, and the provision of navigational services.[9,33] The YACHAs received 10 h of training before implementing the health intervention. The trained YACHAs delivered educational health talks using a PowerPoint presentation and provided information about CRC, CRC screening, and the CRCSP in Hong Kong. In addition, a video clip on CRC and its screening was shown to the participants during the health talk.[34] Onsite demonstration of the stool specimen collection procedure for CRC screening with a FIT was provided during the health talks, and the participants were asked to perform a return demonstration so that it would be easy for them to collect a stool specimen at home after their first consultation with their PCD. The YACHAs assisted the participants in registering their information with the eHealth, which is a requirement for enrollment in the CRCSP in Hong Kong.[22] Furthermore, a role model with past experience participating in the CRCSP was invited to share his/her experience to motivate new participants to participate in the CRCSP and undergo CRC screening with a FIT. A booklet containing information on CRC recapping what the participants had learnt in the health talk was also provided. Each educational talk lasted for 2 h. In addition, the YACHAs provided follow-up telephone conversations and navigational services to the participants and assisted them in undergoing CRC screening within 4 weeks of the follow-up time. The YACHA-led intervention was conducted during the COVID-19 pandemic; thus, the group-based face-to-face gatherings were limited, and the YACHA-led

intervention was provided to the participants on a one-to-one basis via blended approaches using face-to-face or online modes.[35]

Control group

The control group participants were provided with a pseudo-intervention that consisted of two phone calls meant to educate them about the COVID-19 outbreak and preventive measures against the disease. During the study, the social distancing measures implemented by the government of Hong Kong to contain COVID-19 infections among the population were in place.[35] Therefore, providing information about the COVID-19 outbreak to the participants was essential and contributed to maintaining a higher retention rate among the control group participants.

Outcome measures

An author-developed questionnaire was used to collect the participants' demographic information, such as gender, age range, marital status, country of origin, ethnicity, level of education, employment status, monthly household income, resident status in Hong Kong, number of years residing in Hong Kong, self-perceived health status, and health insurance at baseline (T0), and the satisfaction survey was administered immediately after the completion of the YACHA-led intervention at four week after the baseline.

Feasibility of the YACHA-led intervention

The feasibility of the YACHA-led intervention was evaluated on the following dimensions: the recruitment process, the attrition rate, adherence to the intervention protocol, and the data collection process.[30,36]

Recruitment process. The recruitment process was evaluated based on the eligibility rate and the consent rate.[30] The eligibility rate was calculated as the proportion of the participants who met the eligibility criteria among the total number of potential individuals who were assessed for eligibility. Similarly, the consent rate was calculated as the proportion of the eligible participants who gave consent to participate in the study.

Attrition rate. The attrition rate was calculated as the percentage of participants who dropped out of the study before it was completed among all of the participants who consented to be included in the study.[30,37] In this study, the attrition rates for the whole study population, the intervention group, and the control group were reported. The reasons given by the participants for dropping out of the study were recorded.

Adherence to the intervention protocol. An intervention checklist was used to determine whether all of the proposed intervention components, including the modality and frequency, were implemented as planned.[30]

Data collection procedures. All of the participants were invited to complete an author-developed questionnaire to evaluate the feasibility of data collection. The time required to complete the questionnaire in paper-and-pen and electronic formats was measured during data collection.[25] The survey questionnaire completion rate was calculated by dividing the number of completed questionnaires by the total number of questionnaires collected from participants.[30]

Acceptability of the YACHA-led intervention

The participants in the YACHA-led intervention group were invited to complete the satisfaction survey. The acceptability of the YACHA-led intervention was evaluated with an author-developed satisfaction questionnaire. A total of 17 items were used to assess the participants' level of satisfaction with the YACHA-led intervention. The survey consisted of items about the design, duration, and components of the YACHA-led intervention, the relevance of the educational information, the performance of the YACHA, and overall satisfaction with the YACHA-led intervention. The instrument used a 5-point Likert scale, with the following possible responses: 1 = very satisfied, 2 = satisfied, 3 = neutral, 4 = unsatisfied, and 5 = very unsatisfied. In addition, the participants were interviewed via telephone to gather information on their experience of participating in the YACHA-led intervention, to ask whether they would recommend participating in the YACHA-led intervention to their friends and family, and to solicit feedback for improving the intervention. Three open-ended questionnaires were used to explore their experience of participating in the YACHA-led intervention. The questionnaires were initially developed in English and later translated by bilingual experts, when needed, into different EM languages such as Nepali, Urdu, and Hindi.

Data collection procedure

The eligible participants were recruited through a convenience sampling method. Various strategies such as recruitment posters, personal networks, social networking sites (SNSs), such as Facebook, WhatsApp, and Viber, recruitment talks at different non-governmental organizations and South Asian associations that serve South Asian EMs, were used to recruit eligible participants to join the study. The majority of the questionnaires distributed to the participants were in paper-and-pen format. YACHA assisted the participants in completing the questionnaires to ensure good coverage and to enhance the generalizability of the results. A small number of questionnaires were distributed through SNS such as Facebook groups and through smartphone applications such as WhatsApp. Four weeks after baseline, the participants were asked to complete the satisfaction survey.

Data analysis

Data analysis was performed using SPSS version 27 (IBM, Armonk, NY, USA). Appropriate descriptive statistics were used to describe the participants' demographic characteristics, feasibility measures, and satisfaction using frequencies, means, and standard deviations (SDs). Data on the experiences of the participants in the YACHA-led intervention group, which were obtained through phone interviews, were also summarized.[36]

Ethical considerations

The study was approved by the Joint-Chinese University of Hong Kong-New Territories East Cluster Clinical Research Ethics Committee (CREC Ref. No. 2022.028). All participants provided written informed consent.

Results

Participants' baseline characteristics

Table 1 shows the sociodemographic information of the study participants. All the participants were married at the mean age of 56.00 years (SD = 5.53). More than 80% of the participants had no health insurance. No statistically significant differences in the baseline characteristics were found between the YACHA-led intervention group and the control group (Table 1).

Feasibility of the study

Recruitment of the participants

Thirty-nine potential South Asian participants were approached and screened for eligibility. Three failed to meet the eligibility criteria because they had undergone CRC screening with either a colonoscopy in

Table 1
Baseline characteristics of the participants in the intervention ($N = 15$) and control ($N = 17$) groups (T0).

Items	Intervention group Mean (SD)/*n* (%)	Control group Mean (SD)/*n* (%)	*P*-value
Age, years[a]	56.00 (5.53)		
Duration of stay in Hong Kong, years[a]	24.67 (10.10)	27.65 (12.90)	0.476
Gender			
Male	5 (33.3)	10 (58.8)	0.178
Female	10 (66.7)	7 (41.2)	
Ethnicity			
Nepalese	5 (33.3)	5 (29.4)	0.250
Pakistani	3 (20.0)	8 (47.1)	
Indian	7 (46.7)	4 (23.5)	
Marital status			
Married	15 (100.0)	17 (100.0)	
Unmarried	0 (0.0)	0 (0.0)	
Education level			
Primary or below	8 (53.3)	9 (52.9)	0.100
Secondary	3 (20.0)	3 (17.6)	
College	0 (0.0)	1 (5.9)	
University	4 (26.7)	4 (23.5)	
Current employment status			
Employed	8 (53.3)	9 (52.9)	0.100
Unemployed	7 (46.7)	8 (47.1)	
Monthly household income			
$9999 or less	7 (46.7)	3 (17.6)	0.263
$10,000 to 29,999	3 (20.0)	8 (47.1)	
$30,000 or more	1 (6.7)	2 (11.8)	
Do not know	4 (26.7)	4 (23.5)	
Perceived physical health status			
Very good	1 (6.7)	1 (5.9)	0.100
Good	10 (66.7)	10 (58.8)	
Average	4 (26.7)	5 (29.4)	
Poor	0 (0.0)	1 (5.9)	
Health insurance status			
Yes	3 (20.0)	3 (17.6)	0.100
No	12 (80.0)	14 (82.4)	

[a] Data marked with are presented as means (standard deviation). All other data are presented as frequencies (%).

the last 10 years or a FIT in the last 2 years. Therefore, the eligibility rate was 92.3%. All eligible participants consented to join the study. Thus, the consent rate was 100.0%.

Attrition rate

The 36 eligible participants were randomly allocated to either the YACHA-led intervention group ($n = 19$) or the control group ($n = 17$). Four participants dropped out of the study because of religious issues. Therefore, the overall dropout rate of the study was 11.1% (4/36). All four participants who withdrew from the study were from the YACHA-led intervention group. Thus, the attrition rate of the intervention group was 21.1% (4/19). These participants believed that collecting a stool specimen themselves and keeping it at home was unclean and that their goddess would be unhappy with them and their family. Additionally, the participants in the YACHA-led intervention group had to complete various long procedures, which included attending educational talks, booking an appointment, visiting PCDs for medical consultation and collection of specimen kits, returning the specimen to a specimen collection point, and follow-up with PCDs if they got a positive report. Thus, it was anticipated that the attrition rate of the YACHA-led intervention group would be higher than that of the control group. The participants in the control group received the pseudo-intervention that consisted of at least two phone calls to educate them about the COVID-19 outbreak. None of the control group participants dropped out of the study (Fig. 1).

Adherence to the intervention protocol

The remaining participants in the YACHA-led intervention group completed the intervention, which included educational talks, follow-up telephone calls, and a navigational service. The intervention group participants received a 2-h educational talk with information on CRC, CRCSP, and community resources. They then received follow-up phone calls to encourage them to undergo FIT screening. They also participated in a navigational program that consisted of being accompanied to PCDs for medical consultation and to obtain a FIT screening specimen collection kit, as well as to the specimen collection box for submission of collected samples. The proposed YACHA-led intervention components were implemented as planned with the intended modality and frequency.

Data collection procedures

Baseline data collection was done for the participants from both groups. The time taken by each participant to complete the baseline survey questionnaire was approximately 10 min. A total of 15 participants in the YACHA-led intervention group completed the post-intervention satisfaction assessment 4 weeks after baseline. The time taken to complete the post-intervention assessment was approximately 15–20 min. The survey completion rate for both baseline survey and post-intervention assessment survey was 100.0%.

Satisfaction with the YACHA-led intervention

The results of the satisfaction survey completed by the participants in the YACHA-led intervention group are presented in Table 2. Among the participants, 86.7% reported that they were satisfied/very satisfied with the YACHA-led intervention design, whereas 13.3% had neutral assessments. Most of the participants were satisfied/very satisfied (86.7%) with the duration of the YACHA-led intervention, and two participants (13.3%) had neutral responses. More than 85% of the participants reported that they were satisfied/very satisfied with the components of the YACHA-led intervention, whereas 13.3% had neutral responses. Among the participants, 90.0% reported that they were satisfied/very satisfied with the relevance of the educational information, whereas 10% had neutral responses. Similarly, 88.0% of the participants reported that they were satisfied/very satisfied with the performance of the YACHA, whereas 10.6% and 1.3% of the participants responded with neutral and dissatisfied assessments, respectively, for the performance of the YACHA. Lastly, more than 90% of the participants reported that they were satisfied/very satisfied with the YACHA-led intervention provided to them, whereas 6.7% of the participants had neutral responses.

The participants in the intervention group shared their experiences of participating in the YACHA-led intervention. They reported that they had very good experiences and found the components of the YACHA-led intervention very easy to understand and very effective in enhancing their knowledge about CRC, its screening, CRCSP, and the available community resources. They expressed that the trained YACHA were promoting CRC screening in their community and that they received very positive support from YACHA in overcoming language barriers and facilitating access to screening service providers (eg, PCDs) near their residence. All of the participants reported that they would recommend the YACHA-led intervention to their family members and friend circle through their personal networks and SNS such as Facebook, WhatsApp, and Viber because they understood the importance of CRC prevention and the early detection of CRC through government-subsidized CRCSP (Table 2).

Discussion

To the best of our knowledge, this is the first study to examine the feasibility and acceptability of a YACHA-led intervention to increase CRC screening with a FIT among South Asian EMs in Hong Kong. Our findings suggest that recruiting participants for and implementing a YACHA-led intervention is feasible, as more than 90% of the participants from the intervention group reported that they were very satisfied or satisfied with the intervention. Thirty-nine average-risk individual South Asian EM members aged from 50 to 75 in Hong Kong were approached. Three of

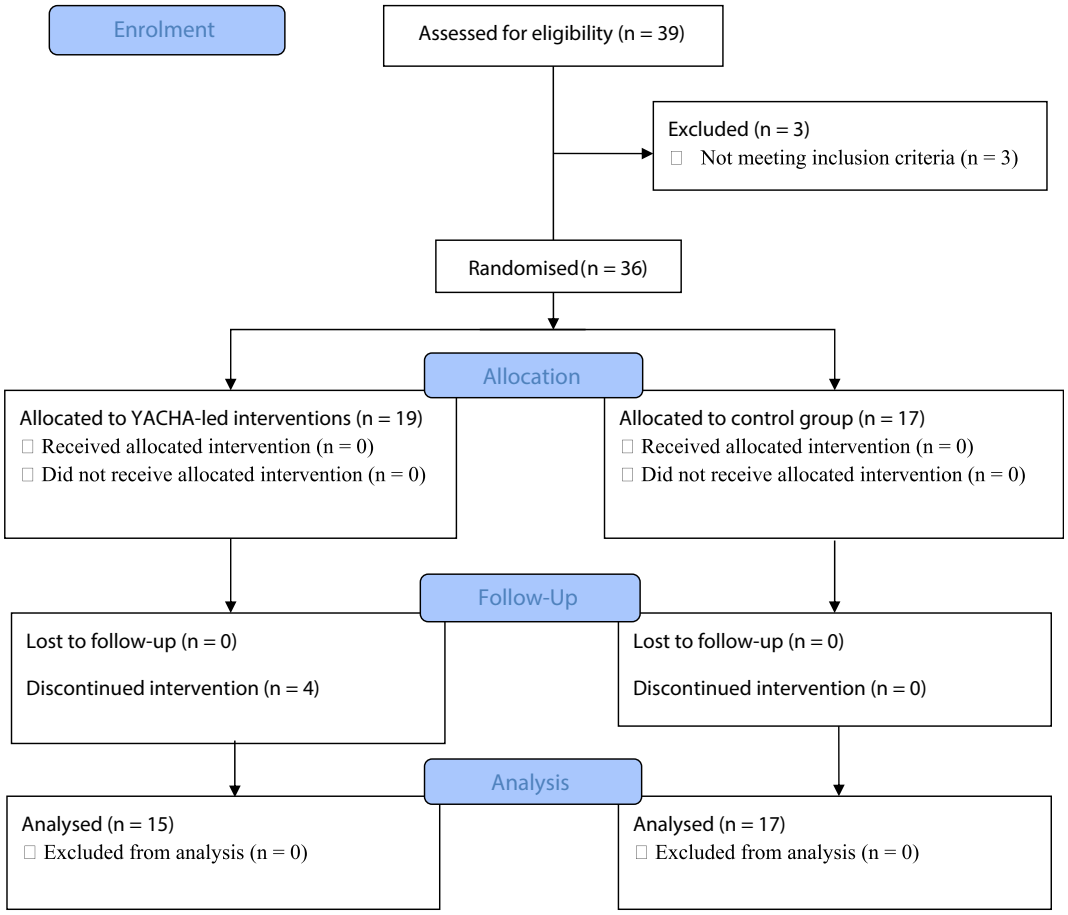

Fig. 1. Consolidated Standards of Reporting Trials (CONSORT) diagram of intervention and data collection points.

those approached did not meet the study's inclusion criteria because they had undergone CRC screening before this study. Thus, the eligibility rate of the participants in this study was 92.3%, which is comparable to the eligibility rate reported in a previous study.[38] The consent rate was 100%, which was also comparable to a previous family-based multimedia intervention on the uptake of FITs among older South Asian adults in Hong Kong.[9] In contrast, the consent rate to participate in the study was higher than those in previous studies conducted in South Asian women in Hong Kong.[37,38] The possible reasons for higher consent rate in our study might be use of various recruitment strategies and use of data collector who is also a member of the South Asian community in Hong Kong and has been working closely with South Asians for several years. This is consistent with the findings of a previous study showing that deploying ethnically matched data collectors increases consent rates to participate in a study because they share similar backgrounds and are familiar with each other.[38]

Another strategy used during the recruitment process was the use of SNS such as Facebook and mobile applications such as WhatsApp to promote the YACHA-led intervention to eligible participants. The recruitment poster and other promotional materials were posted on various SNSs such as Facebook groups and WhatsApp groups that were created to disseminate information targeting individuals with a South Asian background who were residing in Hong Kong. The posted information about the YACHA-led intervention might have circulated among the eligible participants through South Asian people who were active in these groups. Individuals reached could have been the eligible participants or the family members and friends of eligible participants. Generally, older South Asians are not active in these groups because of lower educational attainment and poor skills with digital platforms.[26] Thus, family members and friends who were in the SNS groups may have referred the eligible members to us, which led to their successful recruitment into the study. Another reason for the higher consent and participation rates in this study could be the strong bond between South Asians in Hong Kong. They are closely connected with each other, and it was easy to circulate the information about the YACHA-led intervention throughout the community. Although the recruitment rate was extremely high, we encountered various challenges because of the COVID-19 pandemic. Nearly all of the non-governmental organizations and EM associations that provided services to South Asian EMs in Hong Kong were closed and stopped organizing face-to-face activities for their members. Thus, the use of personal networks and SNS was the primary recruitment strategy adopted in this study.

Nevertheless, almost 90% of the participants successfully completed the YACHA-led intervention, which lasted for 4 weeks. Four participants withdrew from the study after giving consent because of their religious beliefs. They believed that bodily waste is impure or unclean and refused to continue participation. To address the identified concern, we held discussions with religious community leaders and lay persons from the same communities to build a consensus for resolving the issue. It was determined that this was an uncommon individual concern. Therefore, no modification to the components of the YACHA-led intervention is needed. Additionally, the YACHA who were trained to address cultural and religious barriers were from the same communities as the participants, which helped to establish strong connections with them.[39] Consistent with previous studies, religious teaching was found to play a significant role in influencing cancer screening behavior among South Asians.[32,40]

The results of our present study demonstrated that the participants in the intervention group were satisfied with the intervention received from the YACHAs regarding CRC screening with a FIT. The YACHAs were members of the South Asian groups, and they shared similar language and culture with the participants. They were also familiar with the geographical setting and identified the locations of PCDs for CRC screening and assisted the participants in undergoing screening for CRC.[9,37]

Table 2
Participants' satisfaction with the YACHA-led intervention ($N = 15$): After the intervention (T1).

Items	Satisfied/very satisfied *n* (%)	Neutral *n* (%)	Unsatisfied *n* (%)
The YACHA-led intervention design is very good.	13 (86.7)	2 (13.3)	0 (0.0)
The duration of the YACHA-led intervention is appropriate.	13 (86.7)	2 (13.3)	0 (0.0)
I found component of the YACHA-led intervention easy to understand.	13 (86.7)	2 (13.3)	0 (0.0)
Relevancy of educational information			
• The session helped me understand colorectal cancer and how it develops.	13 (86.7)	2 (13.3)	0 (0.0)
• The session helped me understand the risk factors for colorectal cancer.	14 (93.3)	1 (6.7)	0 (0.0)
• The session helped me understand what tests can be used to screen for colorectal cancer.	14 (93.3)	1 (6.7)	0 (0.0)
• The session helped me understand how to talk to my doctor about colorectal cancer screening.	14 (93.3)	1 (6.7)	0 (0.0)
• The session helped me understand how to prepare for having the colorectal cancer screening tests.	14 (93.3)	1 (6.7)	0 (0.0)
• The session helped me understand that worry should not be stopping me from getting tests.	12 (80.0)	3 (20.0)	0 (0.0)
• As a result of this session, I feel more ready to get a colorectal cancer screening test.	13 (86.7)	2 (13.3)	0 (0.0)
• As a result of this session, I feel better able to tell my family members and friends that they should get screened for colorectal cancer.	14 (93.3)	1 (6.7)	0 (0.0)
Overall relevancy of educational information	**13.5 (90.0)**	**1.5 (10.0)**	**0 (0.0)**
Performance of YACHA			
• Having the session at home/community center/associations that I visit was a good idea.	13 (86.7)	2 (13.3)	0 (0.0)
• Having the session taught in my native language was helpful.	13 (86.7)	1 (6.7)	1 (6.7)
• I felt very comfortable asking questions about topics I did not understand.	13 (86.7)	2 (13.3)	0 (0.0)
• I would agree to be in another study that was done with a community organization that I am familiar with.	13 (86.7)	2 (13.3)	0 (0.0)
• I think this YACHA-led intervention program will be well received by other people of my age and from my country.	14 (93.3)	1 (6.7)	0 (0.0)
Overall performance of YACHA	**13.2 (88.0)**	**1.6 (10.6)**	**0.2 (1.3)**
Overall, I am satisfied with YACHA-led intervention	14 (93.3)	1 (6.7)	0 (0.0)

YACHA, Young Adult Community Health Advisor. All data are presented as frequencies (%).

The YACHA-led intervention included an educational health talk, follow-up telephone calls, and the provision of navigational services.[33] The participants from the YACHA-led intervention were provided with education about CRC and the importance of routine screening for CRC. The YACHAs also provided follow-up services through telephone calls or text messages to reinforce the participants' knowledge about CRC and its screening and to remind them to get screened for CRC. The provision of navigational services provided by the YACHAs further optimized the uptake of CRC screening tests among the participants. The YACHA-led intervention was provided to the participants to increase and reinforce their CRC-related knowledge and uptake of screening by removing their personal and structural barriers to accessing and utilizing the subsidized CRCSP in Hong Kong.[37,40]

Limitations

This study has several limitations. First, we utilized convenience sampling and recruited a relatively small sample size, which may not be representative of the entire South Asian population. Other limitation of the study is selection bias because we have recruited the participants only from three major South Asian groups in Hong Kong leaving population from other South Asian group which includes people from Bangladesh and Sri Lanka. Therefore, the findings of this pilot study are not generalizable to other South Asian groups, such as Sri Lankan and Bangladeshi groups residing in Hong Kong or other regions. Another limitation of the study was implementation of the study during the COVID-19 pandemic, and social distancing was one of the pivotal measures used to contain the virus in Hong Kong. Thus, the educational program was only provided online via various online platforms, such as Zoom, and other SNSs, such as Facebook Messenger, which limited the YACHAs from meeting the participants and providing the education face-to-face.

Implications for practice

The findings of the present feasibility study show that it is feasible to conduct a YACHA-led intervention among average-risk South Asians in Hong Kong, particularly working adults and those without younger family members. The YACHAs played a pivotal role in facilitating access to CRC screening among average-risk individuals from the South Asian community. More resources should be utilized to train and empower younger South Asian individuals born and raised in Hong Kong so that they can contribute to the society. The government should make policies whereby South Asian individuals, particularly healthcare workers and trained YACHAs, can work closely with local healthcare providers to reduce the CRC screening disparity between South Asian EMs and the general population.

Conclusions

The preliminary findings of this present study show that it is feasible to conduct the YACHA-led intervention to increase the uptake of CRC screening among eligible South Asian EMs in Hong Kong. A full-scale study should be conducted to reveal its effects and explore whether the participants would continue their participation in the CRCSP and undergo screening for CRC annually or biannually, as recommended by the Hong Kong government.

Declaration of generative AI in scientific writing

No AI tools/services were used during the preparation of this work.

Acknowledgements

The authors would like to acknowledge all the young adult community health advisor (YACHA) for their contribution in the study and all the participants who participated in the study.

CrediT author statement

Tika Rana: Conceptualization, Investigation, Methodology, Data curation, Writing–Original draft preparation.

Dorothy N.S. Chan: Conceptualization, Writing–Reviewing, Editing the Manuscript Critically for Important Intellectual Content and Supervision.

Winnie K.W. So: Conceptualization, Writing–Reviewing, Editing the Manuscript Critically for Important Intellectual Content, Supervision.

All authors had full access to all the data in the study, and the corresponding author had final responsibility for the decision to submit for

publication. The corresponding author attests that all listed authors meet authorship criteria and that no others meeting the criteria have been omitted.

Declaration of competing interest

All authors have no conflicts of interest to declare. The corresponding author, Professor Winnie K.W. So, serves as the Editor-in-Chief of the Asia-Pacific Journal of Oncology Nursing. The article underwent the standard review procedures of the journal, with the peer review process managed independently from Professor So and their research groups.

Funding

This study received no external funding.

Ethics statement

The study was approved by the Joint-Chinese University of Hong Kong-New Territories East Cluster Clinical Research Ethics Committee (CREC Ref. No. 2022.028). All participants provided written informed consent.

Data availability statement

The data that support the findings of the study are available from the corresponding author (Winnie K.W. So) upon reasonable request.

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