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Colon Screening In the Community—A Community Program and Lesson Learnt

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ABSTRACT

Colon-cancer awareness talk, with free faecal immunochemical (FIT) kit conducted by volunteers for the residents living near a cancer community centre in Petaling Jaya, an urban city with a multi-ethnic population. The aim of this report is to present and discuss the outcome of a community screening talk with free FIT kit. 295 healthy individuals who met inclusion criteria consented to take part in the pilot, only 62 percent (184/295) showed up for the intervention. 11.7 percent (n=19) were tested positives but only 9 went for a follow up colonoscopy, and the remainder were still waiting for a colonoscopy after 6 months. Cancer is still a fearful topic despite better treatment, and screening tests offered beneficial outcomes for early detection and cure, but the uptakes for the screening with awareness talk at a community centre on weekends is slow. Better study with outcome measures and qualitative study to explore barriers and facilitators are needed.

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Background

In Malaysia, cancer is the fourth leading cause of overall death and comprises of 26.7 percent (private hospitals) and 12.6 percent (in government hospitals) of all death in 2016. Cancer is more common in Malaysian females (n=43621; 59.8%) compared to males (n=29263; 40.2%), and is highest in Chinese (43.2%), followed by Malay (40.7%), Bumiputera (8.6%), and Indians and others (7.4%) [1].

Globally, colorectal cancer which includes colon and rectum cancer (ICD-10 positions C18–C20) is the most frequent malignant disease of the gastrointestinal tract. CRC is the third commonest cancer in men (10 percent of all cancers) and the second most common cancer in women (9.2% of all cancers), and responsible for 600,000 deaths annually worldwide. In Malaysia, colorectal cancer (CRC) is the most common cancer in males, and second commonest in female in Malaysia. Up to 30-50% of CRC risk is linked to preventable factors such as inactivity, obesity, high intake of red, processed meat, smoking, diabetes, and alcohol. CRC is one of the most preventable cancers, as its relatively slow growing and screening offers secondary prevention of new cases but also from mortality if detected at curable stages. Major declines in incidence and mortality have been demonstrated in countries with high uptake rates of effective screening. Table 1 below showed a 5-year survival rate of CRC which is categorised under the gastrointestinal cancer in 2016 in Malaysia, with evidence of 36-41 percent observed (45-57 % relative) survival rates [2-6].

Table 2: Cancer Survival (Period of Diagnosis 2007-2011; Followed Up In 2016) Malaysia

Gastrointestinal Cancer	5 year survival (%) in 2016			
	Observed survival	(95%CI)	Relative survival	(95%CI)
Colorectal	40.8	(40.0, 41.7)	51.1	(50.0, 52.3)
Colon	45.3	(44.1, 46.6)	56.8	(55.2, 58.3)
Rectum	36.0	(34.7, 37.3)	45.1	(43.5, 46.6)
Stomach	20.2	(18.7, 21/7)	25.7	(23.8, 27.6)
Liver	11.1	(9.9, 12.3)	12.8	(11.5, 14.3)
Pancreas	11.9	(10.3, 13.7)	14.0	(12.1, 16.1)

CI=confidence interval

Source: https://www.moh.gov.my/moh/resources/Penerbitan/Laporan/Ummum/Malaysian_Study_on_Cancer_Survival_MySCan_2018.pdf

The U.S. Preventive Services Task Force (USPSTF) advised that average risk adults (50-75year old) should be screened for colorectal cancer, and more organisations are recommending that screening in average risk population should begin earlier at 45yrs old. Yet, CRC screening rates are the lowest of all cancer screening campaign, with numerous barriers for poor uptakes due to health disparities [7-11]. In Malaysia, colorectal cancer is still detected at late stage of stage 3-4 at 63.8 percent - the highest rate among three cancer sites (colon, breast, cervical) where screening program are provided by the government [1]. With an aging population, the CRC incidences will increase substantially by the year 2020,

with an economic burden for treatment cost. Therefore, there is an urgent need to strengthen the awareness on CRC prevention and promote the screening programme within the community, and identify ways to destigmatize cancer with access to community engagements on cancer awareness with the public. The fecal immunological tests (FIT) is a user-friendly screening kit which can be optimised for screening uptakes, through specific targets of human globin, with higher sensitivity for advanced adenoma and cancer, and detect 60-85 percent of CRC and its more effective with a brief education and health provider support. Thus, the aim of this paper is to present and discuss the outcome of a community screening talk with free FIT kit [12-14].

Methods

Ethics was applied from the University Malaya Ethical committee. This is a cohort pilot study of a Colon-cancer awareness talk, with free fecal immunochemical (FIT) kit conducted by volunteers for the residents living near a cancer community center in Petaling Jaya, an urban city with a multi-ethnic population. The intervention was planned, informed by the socio cognitive theory and health belief model to provide information, with support to build confidence and encourage action-taking (return kit, follow up colonoscopy, stay healthy) [15-16].

Subjects

Recruitment for healthy public were recruited from the mass media (via online media like Facebook and the STAR national newspaper). Those who meet inclusion criteria of i) 45-75 years old, ii) never been screened in the last one year, iii) asymptomatic and iv) able to understand English or Malay, were invited to a group talk, and given a FIT kit with instruction on how to collect

and how to return for testing.

Data collection

The participants were invited to attend a community talk on colorectal cancer prevention and importance of screening. After the group session, they were given a FIT Kit and instructed on how to collect sample, how to store and when to return the kit (within three days). We measured the return of kits as positive behaviour for screening uptakes (as an indicator of the effectiveness of intervention). For those tested with positive faecal immunochemical-test, a telephone call was made to counsel them for a follow-up at their preferred hospitals for colonoscopy. Those without insurance coverage were advised to make appointments at the public hospital and those with insurance were encouraged to attend follow-up at their private hospital.

Results

295 healthy individuals who met inclusion criteria consented to take part in the pilot, but only 62 percent (184/295) showed up for the intervention. The participants were predominantly Chinese, mean age of 60 years old and 55 percent were females. Table 2 is the data result of uptakes. There were five group sessions of community colon screening with an average of 35-45 participants per batch. A total of 162 participants returned their kits within three days, while 22 (23.5%) did not return the kit. From the 162 who returned their kits, 19 (11.7%) were tested positive for FIT. Among the positives, nine (47%) went for follow-up colonoscopy and returned with negative results. The remainder (n=10) were either still waiting for appointments which can take a minimum of two to several months (if it's with a public hospital).

Table 2: Colon Cancer Participants at a Cancer Prevention Community Talk Event

Group	Consented to talk	Attended talk	Returned FIT 1-3days	FIT test positives	Colonoscopy still NOT done (even after 12 weeks)
1	57	33	23	3	I not yet (fear)
2	60	25	15	3	1 not yet (financial)
3	60	36	26	5	2 not yet (delaying visit)
4	62	50	50	6	4 not yet (fear, financial)
5	56	48	48	2	2 not yet (no time)
Total	295	192	162	19	19/162 =11.7 positives

Discussion

A total of 184 of 295 consented individuals (62 percent), attended the session, and 162 returned kit giving an uptake of 84 percent. The success was attributed to the personal invitation calls, and the availability of volunteers during weekends to accommodate public who are unable to come in during weekdays. The 19 participants who were tested positives were personally called up and counselled on follow up test.

The education materials were developed by a cancer prevention fellow to present salient point on cancer prevention, screening methods for colorectal cancer and signs-symptoms of colorectal cancer. The key focus was on prevention, and the talk finished with time for questions. Most participants expressed satisfaction of the brief intervention talk with support for questions/answer, and is more in line with patient self-management than just patient education alone. Such educational intervention has been proven to improve health equity with benefits to public health [14,17,18]. Lifestyle redesign (physical activity, weight control and diet), identification of individuals at risk, and screening for early removal of pre-neoplastic lesions are also one of the most important

measures for the prevention of colorectal cancer [12,19,20].

The use of FIT screening for occult blood is user friendly (i.e. does not require more than 1 test, no fasting or avoidance of certain food) as the test are specific for human globin and have a higher sensitivity for advanced adenoma and cancer. Faecal immunochemical test has a superior effect on colorectal cancer incidence and mortality [21]. However, despite of the availability of free screening program the uptake was slow and accrued over almost a year, and follow up action for those tested positives was also slow. All these suggests presence of barriers, and further study is needed to explore these barriers [such as issues with transport (physical), health literacy (cognitive), fear (emotional) and, cancer myths and stigma (attitudinal)] so that action can be taken to increase uptakes. Cancer is still a fearful topic despite better treatment.

In general, the organisation of the community program was hampered by limited volunteers that can assist during weekends. Outcome measures such as demographic on insurance and household income, knowledge of cancer and quality of life were

initially added but there were not properly follow up. Data was collected on the numbers who turn up for the talk and those who returned kit were recorded. Future study should include some outcome measures which include health literacy, stigma of cancer and/or knowledge of cancer, and the detail follow up of colonoscopy. One participant who had her colonoscopy done in the previous year but was tested positive. The attending doctor performed another colonoscopy on her and the results were negative of cancer or polyps or any pathology. The participant returned with feedback that her physicians advised her not to do any yearly FIT screening. Those found positives should be followed up with more socio-economic-demographic data and a qualitative study can be done on those who kept delaying /avoided the follow-up colonoscopy examination.

Conclusion

Cancer is still a fearful topic despite better treatment, and screening tests offered at community centre on weekends has slow uptakes. Nevertheless, cancer prevention through FIT screening should be optimised with accompanying talk to increase awareness on symptoms, risk factors, guidelines for colorectal screening, as the key secondary prevention of colorectal cancer, As prevention is cost effectively better than cure, more community-engagements needs to be incorporated to promote earlier detection. Awareness campaign must be evaluated and measured for effectiveness, and a future coordinated research trial on colorectal screening is needed to explore barriers and facilitators for cancer screening uptake in the community.

Implications

CRC Community Talk with screening has good potential to improve cancer awareness, detection of polyps for early cure and reduce incidences and mortality cases. Community campaigns to target raising awareness must be followed with evaluation of effectiveness. Both quantitative and qualitative data collected can be used to address poor uptakes and inform future program.

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