

How do Chinese Male in Hong Kong Perceive Colonoscopy?

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Abstract

Nowadays, there has been an increased awareness on colorectal cancer (CRC) among the public and colonoscopy is the commonest diagnostic tool for CRC. Literature showed that men have a higher probability of having CRC than women and their mortality rate is also higher. However, little attention has been paid on exploring the perception of colonoscopy among Chinese men by using qualitative studies. In light of the information above, a descriptive qualitative design with a semi-structured interview was selected for this study. Nine Chinese male participants had participated in the study. It was believed that Health Belief Model (HBM) as the framework helped to understand individual differences in health behavior, and designing interventions to change behavior. Thus, the interview questions covered all six aspects of Health Belief Model (HBM). Content analysis was used to analyze the data. The result identified in the study suggested that further promotion of colonoscopy is necessary. By using HBM, a complete picture of the perception of colonoscopy among Chinese male in HK has been discovered.

Keywords: Colonoscopy, Chinese male, qualitative study

1. Background

Paying attention to the men's health was becoming an important topic across the world (Baker, 2002). Various studies found that the life expectancy of men was shorter than that of women. It was due to the difference of health care behaviors that caused the death of heart diseases and cancers around the world (Courtenay, 2000).

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Galdas, Cheater & Marshall (2005) found that men were less likely than women to seek help from health professionals for problems and use health services in comparison to the female counterparts. In addition, Brown (2001) stated that men between 45 and 65 years old were an "invisible group" felt by GPs. In Hong Kong, men were also found to be less likely than women to seek medical help. According to the Census and Statistics Department (2010), the doctor consultation rate generally increased with age, but men seemed to be less interested to consult doctor when they had illnesses or suffered from diseases, with a doctor consultation rate of 18.9%, while 23.9% for women.

Sung et al. (2008) had pointed out that most Chinese believed that "screening" was needed only when they develop symptoms of cancer. Some Chinese avoided discussing cancer because it is seen to bring bad luck and they preferred discussing on options to improve one's health instead. Also, they viewed having cancer as being part of their destiny or fate that explain why some Chinese were less likely to use preventive health care services (Bong & McCool, 2011). Moreover, a recent study (Hilmi, Hartono & Goh, 2010) showed that Chinese had negative perception towards colorectal cancer (CRC) screening and less willing to undergo CRC screening compared to Malaysian and Indian.

Colorectal cancer (CRC) is a significant health problem and a common malignancy of the lower gastrointestinal tract (Omran & Ismail, 2010). CRC is the third most common cancer among men and the second among women in the world in 2008. In Asian countries like Japan, Korea and China, the incidence rates of CRC were higher comparing with other cancers (Goh et al., 2005; International Agency for Research on Cancer, 2010; Jemal et al., 2011). In Hong Kong, according to the Department of Health (2011), CRC is the second most common cancer, about 4,031 new cases (with 2267 men and 1764 women in cases with the male and female ratio 1.3 to 1) and 1,752 deaths of CRC were reported in 2009. The crude mortality rates of CRC were 30.3 per 100 000 male population and 20.3 per 100 000 female population respectively. CRC is the most common malignancy among men. Therefore, CRC also is the problem needed to be concern in Hong Kong.

The incidence rate of CRC is 15 times higher in adults aged 50 or above than in those aged 20 to 49. Therefore, men aged 50 or above are at higher risk in suffering from CRC.

Furthermore, the Cancer Expert Working Group on Cancer Prevention and Screening (2010) suggested that citizens aged 50 to 75 with average risk in Hong Kong should be advised to undergo CRC screening. Promote the acceptance of CRC screening is essential for men who are aged 50 or above.

The trend of delayed help seeking in men may result in the higher incidence and mortality rates of CRC. According to the American Cancer Society (2011), CRC could be prevented by applying existing knowledge about cancer prevention and by increasing the use of established screening tests. Therefore, having a CRC screening is beneficial for men in order to prevent CRC and reduce the mortality rate (World Health Organization, 2011).

The American Cancer Society (2008) stated that the CRC screening includes annual fecal occult blood test (FOBT) or annual fecal immunochemical test (FIT), digital rectal examination (DRE), flexible sigmoidoscopy, colonoscopy, and double-contrast barium enema or CT colonography (virtual colonoscopy).

Rawl et al. (2001) identified four main benefits of CRC screening, including early discovery of CRC, a lower chance of dying from CRC, the freedom from worry about CRC and the precision of reassurance.

Colonoscopy has been widely used since the 1970s as the primary diagnostic tool to follow up on positive findings from FOBT, any abnormalities found during sigmoidoscopy or limited findings with the sigmoidoscopy (Gatto et al., 2002; Gipsh, Dietz & Sullivan, 2004; Pelusi, 2001). Physicians advocate for colonoscopy as the best available screening procedure and the only sensible way to examine the entire colon up to the cecum, detect and remove adenomatous polyps as well as tissue biopsy of any suspicious lesion for preventing CRC with a higher sensitivity than FOBT in the decade (Gipsh et al, 2004; Kolligs et al., 2011; Lau & Sung, 2004). Although CRC screening especially colonoscopy had such benefits, the screening rate was still low (Lau & Sung, 2004; Wong et al., 2010).

In order to understand Chinese men's health beliefs and the influencing factors of their health-related behaviors, this qualitative study is conducted to provide an understanding of the perception on colonoscopy of Chinese men aged 50 or above in Hong Kong by using the Health Belief Model.

Health Belief Model (HBM) was one of the first theories on health behavior and was one of the most popular behavioral theories in this world, as it has the longest history among the other theories (Glanz, Rimer & Su, 2005; Redding et al., 2000).

HBM was used for predicting if people were willing to do any disease prevention and health protection activities and also to discover the reasons behind (Nagia, 2002). It is useful in organizing information on the view of people about their state of health and what factors would influence them to change their behavior (Hoeman, Ku & Ohi, 1996). According to Abraham and Sheeran (2005), there were a number of studies indicated that the key health beliefs underlying the threat and behavioral evaluations provide a useful framework for understanding individual differences in health behavior, and for designing interventions to change behavior.

HBM consists of six components. They are the perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action as well as self-efficacy (Sharma, 2011). The perceived susceptibility means that whether an individual believes that he or she has the chances of getting a condition, while the perceived severity is about how an individual believes of the seriousness of a condition and its consequences. For the perceived benefit, it refers to the beliefs about the effectiveness of taking action to reduce risk or seriousness. And the perceived barriers are the beliefs about the material and psychological costs of taking an action. The cues to action are the motivations of an individual to participate in precautions for the condition. Finally, self-efficacy refers to the confidence of the individual in performing the actions (Abraham & Sheeram, 2005; Bylund, Galvin, Dunet & Reyes, 2011; Deavenport, Modeste, Marshak & Neish, 2010; Redding et al., 2000).

In addition, for the individual to take preventive action, the perceived benefits should outweigh the perceived barriers. Beliefs about the benefits of screening are weighed against barriers while cues from the environment affect one's views about barriers or benefits (Yarbrough & Braden, 2001). The cues to action may be internal to the individual, such as the appearance of the symptoms or the increase in severity of physical symptoms, or external to the individual such as health campaigns and input from health professionals. According to the assumptions of this model, people engage in health promoting activities because they value health, define disease as a threat with serious avoidable consequences, and expect positive outcomes from activities (Glanz et al., 2005).

Mediating factors such as demographic, structural, and social variables have also been explored in applying the HBM. Mediating variables like educational level are believed to indirectly affect behavior by influencing an individual's perceptions of susceptibility, severity, benefits, and barriers (Redding et al., 2000).

CRC can be detected by different screening test, especially colonoscopy, and it may also be prevented by modifying health behaviors. The HBM can be used effectively to guide the development of messages aimed at persuading individuals to undertake health actions such as CRC screening. Therefore, this model can serve as a successful guide to the research study, as well as educational practice in health programs at the individual, group and societal level. By using HBM, the health beliefs of CRC which influence the health behaviors directly can be explored.

In Hong Kong, mortality rate of colorectal cancer (CRC) in male is relatively higher than in female. However, the CRC screening rate is lower in male. One of the CRC screening tests is colonoscopy, it is regarded as the best available screening method to identify CRC. Therefore, colonoscopy is needed to promote among the Chinese male in Hong Kong.

2. Aim

This study aims to find out the perception of colonoscopy among Chinese male in Hong Kong. Health Belief Model (HBM) was used as a framework of the study, and was used to discover the relationship between health beliefs and behaviors.

3. Methods

This study was in descriptive qualitative design. It helped to gain an in-depth understanding on the health belief about colonoscopy received by Chinese men. It was also well suited for the Chinese men to express their ideas about their health or ill health regarding CRC in their own terms. Convenience sampling was used, and semi-structure interviews were conducted with 9 Chinese male participants who aged above 50. Written consents from each participant were obtained on which the study was described and the rights as study participant were explained. The interviews were tape-recorded and transcribed verbatim. Then, the data were circulated to the research team members for content analysis.

The written transcripts were read and reread by the research team members. After that, the key words were emerged and grouped together according to the six themes of HBM.

4. Results

4.1 Perceived Susceptibility

Perceived susceptibility is defined as the participant's perception of his likelihood of having CRC. All participants had low susceptibility for colorectal cancer (CRC). Participants showed low perceived susceptibility towards CRC. There are two main reasons including having healthy lifestyle and no family history of CRC.

First of all, there were nearly seventy percent of the participants believed that having healthy lifestyle is an important factor for low perceived susceptibility towards CRC. Having health lifestyle includes health diet, regular bowel pattern, having annual body check and doing exercise.

- “Nothing was special with my bowel pattern. It is not too hard so I do not pay much attention on it.” (Participant 1)
- “I have my diet pattern carefully planned now... so I am on a balance diet. I eat high fibre food. I eat less meat now. I eat oatmeal every morning.” (Participant 3)
- “I have no plan to have colonoscopy again, because I am healthy and I just finished my running exercise.” (Participant 7)

Also, no family history of suffering CRC was one of the reasons for low perceived susceptibility towards CRC. Some participants expressed that no family history of colorectal cancer was also the main reason for low susceptibility towards CRC.

4.2 Perceived Severity

Perceived severity is defined as the participant's perception of the seriousness of CRC's consequences. All participants perceived CRC as sever, the consequences of contracting CRC can be divided in to three aspects, which including physical, psychological and social aspect.

Firstly, for the physical aspect, participants expressed their thought that once they were diagnosed with colorectal cancer, surgery would be needed afterwards. After the surgery, there would be some physical changes due to metastasize, open a stoma or having chemotherapy.

- “Although the surgery cut parts of the intestine, we do not know whether the cancer would metastasize or not.” (Participant 1)
- “Colorectal cancer always metastasizes to be liver cancer. The probability is very high.” (Participant 4)
- “After the first time of chemotherapy, I had to take an injection a week later. That injection made me very tired... I had nausea and vomited. Also my body was very painful... My skin and my mouth became canker. I had a poor appetite...”(Participant 6)

Secondly, for psychological aspect, participants explained if they were being diagnosed with colorectal cancer they would feel upset, anxious and unbelievable. Also, the family members might feel sad, worry and stressful.

- “It just likes the end of the world. You cannot manage your future... upset and anxious...” (Participant 2)
- “When the doctor said it was already at the fourth stage, I was in a state of utter and stupefaction...”(Participant 6)
- “I would feel sad and unbelievable. I would think was there any problem with my diet or was I not aware of my health in the past? So I have colorectal cancer now. I would feel regretted so much.(Participant 8)

Finally, according to the participants, CRC might have influence on their social life, including feeling inconvenience of daily life, put in impact on the work, affecting the social interaction between friends.

- “The surgery cuts parts of the intestine... There will be a colostomy bag... it makes trouble in daily life.” (Participant 3)
- “It would affect your life. You would think of taking what kinds of medication all the times. You should go to hospital to have chemotherapy and take injection.” (Participant 4)
- “I should prevent going to crowded place and smoking area. If I go to hospital, I must wear a mask. In the public place, I also wear mask... I seldom go to crowded place because I afraid of getting infectious disease.”(Participant 6)
- “People around me would be affected. That means my close friends would be under pressure... I would tell them my condition, but they would feel concerned.” (Participant 8)

4.3 Perceived Benefits

Perceived benefits refer to what the participant perceives as positive outcomes of having colonoscopy. There are two types of benefits expressed by the participants towards colonoscopy, which are early detection and early treatment of colorectal CRC.

First of all, in this study, participants regarded having colonoscopy could help the early detection of CRC. According to the participants, colonoscopy is one of the best methods to investigate the large intestine and diagnose large intestine disease.

- “Colonoscopy is one of the best methods to check the large intestine.” (Participant 3)
- “If you want to know whether you have colorectal cancer or not, just perform colonoscopy. Then you can know more about your health condition...” (Participant 9)

Moreover, another benefit of having colonoscopy is early treatment of CRC, once polyps were found during the procedure of colonoscopy, they can be removed and sent out for pathological test. Then, the colorectal cancer can be treated as soon as possible.

4.4 Perceived Barriers

Perceived barriers refer to what the participant perceives as the factors interfere of having colonoscopy. According to the participants, there were three barriers of having colonoscopy.

Firstly, the major barrier was the fact that CRC is expensive. Half of the participants in the study regarded this as the obstacles.

- “I do not know the costs of colonoscopy. If it is too expensive, I cannot afford it.” (Participant 1)
- “Having colonoscopy is expensive... I do not have enough saving to pay for it.” (Participant 3)

Secondly, worries regarding complication and preparation of colonoscopy were also barriers against having colonoscopy. Participants concern about the perforation of colon as the complication of having colonoscopy. Also, one of the participants concerned that it had too much restriction in the preparation of colonoscopy.

- “I need to stay hospital overnight... also I need to drink something for clearance of the intestine and I am not allow to eat fiber food. There are too many restrictions.” (Participant 3)
- “It is because you are talking about inserting an instrument inside your body. Even though it is safe and 90% is security, it may have chance to cause perforation of colon. It is an invasive procedure... Hazard may exist.” (Participant 4)
- “After the general anesthesia, the endoscope inserts into the body. It will be a threat and hazard may exist. The perforation of colon may occur and I worry about it...” (Participant 7)

Finally, two of the participants in this study concerned having colonoscopy as a time consuming procedure. It was because having colonoscopy putting an influence on their work.

- “I am very busy with my work.” (Participant 5)
- “Time is also one of the concerns.” (Participant 8)

4.5 Cues to Action

Cue to action refers to the factors that stimulate or motivate to having colonoscopy. There are four cues for participants to have colonoscopy, they are discovery of signs and symptoms of CRC, recommendation from physicians, lower cost of colonoscopy and receiving more information of CRC.

First of all, there were thirty percent of participants in this study expressed that if some signs or symptoms of CRC were discovered, they would go ahead to have colonoscopy.

- “If there are any signs and symptoms of colorectal cancer, I will have colonoscopy as the first priority.” (Participant 6)
- “I will have colonoscopy if it becomes serious... serious means decreasing in body strength, loosing body weight and feeling fatigue or moodiness...” (Participant 8).

Secondly, half of the participants expressed that the recommendation from physicians was an important factor for them to have colonoscopy. For example, participants regarded taking the advices from the physician as the most accurate way and the first priority to have colonoscopy.

- “All the decisions are based on doctor’s advice.” (Participant 4)

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- “Seeking advice from the doctor is my first priority, but I will not have a colonoscopy immediately.
- I will seek advice from my friends or consult more doctors. It aims to prevent making wrong decision or in case there may be other methods. If everyone suggests me to have colonoscopy, I will do it.” (Participant 9)

Thirdly, lower cost of colonoscopy was another reason for the participants to have colonoscopy. Two participants stated that:

- “If it is free of charge, then I will consider about it!” (Participant 5)
- “When I read the newspaper, some of them posed advertisements about free-charged colonoscopy. If there is an opportunity, I want to try.” (Participant 4)

Finally, receiving more information of colorectal cancer was a cue for participants to take action.

- “As you are reminding me now, I will think about it tonight and consider it... There were information about colorectal cancer from government, radio and television previously, but I seldom hear now.” (Participant 4)
- “There are many newspapers reported high incident rate of colorectal cancer in Hong Kong... which means many people afflicted with colorectal cancer... I have not had body checks for many years, so having colonoscopy will be the first priority.” (Participant 7)

4.6 Self-Efficacy

Self-efficacy refers to a participant's confidence to overcome the barrier to have colonoscopy. There were two participants demonstrated concept of self-efficacy.

- “Do you have confidence to overcome your perceived barriers and have colonoscopy in coming future? Yes, I will take action very soon... I will contact with my insurance agent and see whether if it is possible to cover the cost of colonoscopy... ” (Participant 5)
- “If colonoscopy is necessary, I will consider all kinds of solution to deal with financial problem.” (Participant 8)

5. Discussion

In this study, all of six constructs, perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy, of Health Belief Model were covered.

There are numbers of literatures which usually focused on one to two constructs of HBM of colonoscopy. Therefore this study can give a more complete picture of the perception of colonoscopy of Chinese male in Hong Kong.

Throughout the interview, most of the participants emphasized that they had little chance of contracting CRC. Based on their knowledge of CRC, they could tell some true sign and symptom as well as the risk factors of CRC. The participants predicted their possibility of contracting CRC according to their knowledge which initiated the perceived susceptibility.

The reason suggested by the participants was mainly lack of signs or symptoms of CRC. And they showed great confidence of their health status. They believed that having high-fiber diet, doing exercise and avoiding unhealthy habit (smoking) could prevent CRC. These healthy habits can be grouped as primary prevention strategy while screening and early detection are secondary prevention strategy (James, Campbell & Hudson, 2002). Since the participants interpreted that they had already fulfilled their own primary prevention strategy, they would seldom or never consider having colonoscopy. According to Wong et al. (2010), self-perceived health status can greatly influence the decision of screening option.

As the participants rated their health status as fair or good, they had seldom or even never thought about contracting CRC. As a result, they had not put colonoscopy on the to-do list. Similar to the phenomenon of a quantitative study (Wong et al., 2006) in Hong Kong, this study discovered that 67.6% respondents who perceived a fair to good health status would have lower concern level of getting CRC. To conclude, overestimating of health status may be one of the obstacles of having colonoscopy and even delay the treatment of CRC. In our literature review, it is seen that higher perceived severity can enhance the implement of preventive actions. All of the participants in this study expressed that contracting CRC was serious. And this disease must affect them as well as their family. They explained that if they had CRC, there should be a physical change. Undertaking a surgery was needed while stoma and colostomybags were necessary. They also believed that the cancer may metastasize to other part of the body. Their daily life would be changed and they would be the burden of the family as their family members needed to take care of them.

During the interview, the participants showed that they really concerned about the psychological change of their family members. Concern from sufferers' family was much more important than the emotional changes of their own self. They wished they would not cause any trouble to their family and their friends. It may be because of the traditional culture of Chinese. Chinese male acts as the leader and the main financial support of a family. Therefore they may be implanted the concept of building a strong and tough image during their growth.

The major barrier stated by the participants was financial concern. Not surprisingly, financial concern is a barrier commonly found in other studies about colonoscopy (McLachlan, Clement & Austoker, 2011). From the demographic data, the financial situation of the participants was represented by three items which were employment status, monthly income and with or without health insurance. 55.5% of the participants were unemployed or retired with low or no income. The monthly income of employed participants was below or equal to twenty thousand dollars, so the cost of colonoscopy was treated as a burden for them and the family. Their monthly income had already hardly covered the daily expense of the family so they stated that they did not have extra money for colonoscopy. The participants also believed that the cost of taking colonoscopy in private hospital was unaffordable.

Another important source of financial barrier found in this study was sufferers' insurance status.

Different to other countries, health insurance is not compulsory in Hong Kong. Among all participants, only two of them had health insurance while rest of them just had life insurance. That fact that they had no coverage of health insurance prohibited their will of taking colonoscopy. Health insurance was highly promoted in the Healthcare Reform. Voluntary Health Insurance (VHI) had the highest support among all other financial proposal (Food and Health Bureau, 2008). The finding of this study also supported this financial arrangement. There should have been more financial support for the people who buy health insurance. And the content of the health insurance should also be regulated.

Although all of the participants agreed having colonoscopy was beneficial such as diagnosis of CRC, inspection of large intestine, removal of polyps, etc, the perceived barriers were weighted as much more important than the perceived benefits. As a result, there were a few participants considered colonoscopy in future.

Cues to action motivate people to take preventive actions of a disease. Having sign and symptom of CRC was the greatest motivation for the participants to take colonoscopy. They usually stated that they would not consider colonoscopy as they were free of symptoms of CRC. Therefore the knowledge of CRC should be promoted. If people are educated with the knowledge of CRC symptoms and the risk factors, the possibility of taking colonoscopy will be increased.

Recommendation of physician was another cue. Most of the participants said that if the physician recommended colonoscopy, they would take action at once. Physicians play an important role of promoting the uptake of colonoscopy.

They may provide more information of CRC for people and explain the importance of having colonoscopy to the high-risk group.

Self-efficacy was expressed by two participants. Both of them treated financial concern as the main barrier of taking colonoscopy so they paid most attention to this barrier. They expressed that colonoscopy would be planned in future and they believed they had the ability to tackle the financial problem. One of the participant said that he would discuss with his insurance agent to check whether if his health insurance could cover the cost of colonoscopy. The participants emphasized that they would not take colonoscopy in future when they were asked about self-efficacy.

The concept of self-efficacy may not be established when the participants did not consider any preventive actions. The result of this study was different to studies in other countries.

A qualitative study about Hispanic women (Deavenport et al., 2010) also included the self-efficacy to preventive action. The respondents of the study mentioned that believing in God, placing importance on their health and thinking about their family members were the reasons of high self-efficacy. Those findings were not discovered in our study. This may be due to cultural difference.

6. Recommendation

In this study, self-efficacy was not clearly expressed by the participants. Self-efficacy can be discovered in other countries but there are a few studies about the self-efficacy of Chinese. Further study may pay more attention to this issue.

Besides, the environment of interview should be improved. A quiet and comfortable room should be provided. During the interview, there should only be the interviewer, the observer and the interviewee in order to protect the privacy of the interviewee. This also allows the interviewee express their thought freely.

In addition, the skills of the interviewer could be improved. This could ensure the participants could give as much information as possible and maintain a smooth interview under a harmonic atmosphere.

7. Conclusion

By using HBM, a picture of the perception of colonoscopy among Chinese male in HK has been discovered. Throughout the study, only a few of participants considered to take colonoscopy in future.

Financial concern which was mentioned by the participants was the greatest barrier of having colonoscopy. To raise awareness of colorectal cancer, attitudes on detection and access to screening, promotion of colonoscopy are necessary. Based on the finding of this study, the promotion of colonoscopy may be improved.

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