TREATMENT SEEKING BEHAVIOUR AND GOVERNMENT PRIMARY HEALTH CARE UTILISATION AMONG MALE CIVIL SERVANTS IN KELANTAN

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LIST OF ABBREVIATIONS

Δ	Absolute precision
Adj.	Adjusted
CI	Confidence interval
DM	Diabetes Mellitus
ED	Erectile dysfunction
FGD	Focus group discussion
HPT	Hypertension
HCW	Healthcare workers
MOH	Ministry of Health
n	Sample size
NHMS	National health and morbidity survey
OR	Odds ratio
PHC	Primary healthcare
ROC	Receiver operating characteristic
SD	Standard deviation
SPSS	Statistical Program for Social Sciences
STD	Sexually transmitted disease
TCM	Traditional and complimentary medicine
TSB	Treatment seeking behaviour
UK	United Kingdom

TINGKAHLAKU MENDAPATKAN RAWATAN DAN PENGGUNAAN FASILITI KESIHATAN PRIMER KERAJAAN DALAM KALANGAN PENJAWAT AWAM LELAKI DI KELANTAN

ABSTRAK

Latar Belakang: Tingkah laku mendapatkan rawatan adalah urutan tindakan pemulihan yang dipengaruhi oleh banyak faktor yang individu ambil untuk memperbaiki keadaan kesihatan. Pada masa ini, sangat sedikit diketahui mengenai tingkah laku mendapatkan rawatan dalam kalangan lelaki di Kelantan dan pengalaman mereka terhadap penggunaan kesihatan primer di negara ini terutamanya dalam kalangan penjawat awam yang dianggap sebagai pengguna kesihatan awam terbesar di Malaysia.

Objektif: Kajian ini dijalankan di kalangan penjawat awam lelaki di Kelantan untuk menentukan tingkah laku mendapatkan rawatan dan faktor-faktor yang berkaitan dan untuk meneroka pengalaman terhadap perkhidmatan kesihatan primer.

Metodologi: Ini adalah kajian kaedah campuran yang terdiri daripada bahagian kuantitatif dan kualitatif yang dijalankan dalam kalangan penjawat awam lelaki di Kelantan. Dengan menggunakan persampelan rawak mudah, seramai 402 peserta terlibat dalam bahagian kuantitatif kajian menggunakan soal selidik tingkah laku mendapatkan rawatan manakala bahagian kedua dijalankan dengan 6 perbincangan kumpulan fokus. Analisis deskriptif dan regresi logistik dilakukan untuk mengenal pasti perkadaran tingkah laku mendapatkan rawatan yang tidak sesuai dan faktor-faktor yang berkaitan. Analisis tematik dilakukan di bahagian kualitatif untuk mengenal pasti tema-tema yang berkaitan.

Keputusan: Kadar tingkah laku mendapatkan rawatan yang tidak sesuai di kalangan penjawat awam lelaki di Kelantan adalah 64.6%. Terdapat 12 pemboleh ubah penting

yang dikenalpasti dari tujuh model yang dibuat menggunakan regresi logistik yang dikaitkan dengan tingkah laku mendapatkan rawatan yang tidak sesuai. Mereka adalah bukan Islam (OR 2.6, 95% CI: 1.1,6.7 p = 0.041), pendapatan isi rumah yang tinggi (OR 4.5; 95% CI: 1.7, 11.6 p = 0.022), berkahwin (OR 0.3; 95% CI: 0.3, 0.7 p = 0.035), purata penilaian kesakitan penyakit (OR 0.45, 95% CI: 0.3,0.7 p = <0.001), maklumat yang rendah tentang penyakit (OR 3.3; 95% CI:1.4, 7.8 p = 0.012), tidak menerima rawatan yang sesuai (OR 5.4, 95% CI:1.0, 29.5 p = 0.042), kepentingan kos rawatan (OR 0.2; 95% CI:0.1, 0.4 p = <0.001), tidak menerima penyakit bila memiliki simptom (OR 2.8; 95% CI: 0.9, 8.8 p=0.041), malu dengan penyakit (OR 0.2; 95% CI: 0.1, 0.5 p= <0.001), tanggungjawab kerja dan keluarga (OR 0.3; 95% CI: 0.1, 0.6 p=<0.001), akses yang mudah kepada ubat (OR 0.4; 95% CI: 0.2, 0.7 p=0.011) dan kemampuan sebagai penyentu (OR 0.3; 95% CI: 0.1, 0.6 p= <0.001). Tema utama yang muncul dari sesi perbincangan adalah literasi kesihatan, peringkat mencari rawatan, rawatan sendiri, penggunaan perkhidmatan, privasi dan sikap pekerja kesihatan.

Kesimpulan: Tingkah laku mendapatkan rawatan dalam kalangan penjawat awam lelaki di Kelantan adalah rendah dan faktor yang menyumbang adalah pelbagai seperti sosio-demografi, individu, anggota kesihatan, psikologi, pemasaran, situasi dan sosio-budaya dan keluarga. Kerjasama diperlukan dari semua pihak untuk meningkatkan tingkah laku lelaki mendapatkan rawatan dan penggunaan perkhidmatan kesihatan untuk memastikan lelaki sentiasa berada pada tahap kesihatan yang optimum.

Kata Kunci: *Tingkahlaku mendapatkan rawatan, Penggunaan Fasiliti Kesihatan Primer, Penjawat awam lelaki*

TREATMENT SEEKING BEHAVIOUR AND GOVERNMENT PRIMARY HEALTH CARE UTILISATION AMONG MALE CIVIL SERVANTS IN KELANTAN

ABSTRACT

Background: Treatment seeking behaviour (TSB) is a sequence of remedial actions which are influenced by many factors that individuals undertake to rectify perceived ill-health. Currently, very little is known regarding TSB among men in Kelantan and their experiences towards primary healthcare utilisation (PHC) in the country especially among civil servants who are considered the largest consumers of public healthcare in Malaysia.

Objectives: This study was conducted among male civil servants in Kelantan to determine the TSB and its associated factors and to explore the experiences on PHC services and TSB.

Methodology: This was a concurrent parallel mixed method study which consisted of a quantitative and a qualitative part done among male civil servants in Kelantan. By using simple random sampling, a total of 402 participants were involved in the quantitative part of the study using a TSB questionnaire while the second part of the study was conducted by 6 focus group discussions. Descriptive analysis and logistic regression were performed to identify the proportion of inappropriate TSB and the factors associated with inappropriate TSB among male civil servants in Kelantan. A thematic analysis was done in the qualitative part to identify themes.

Results: The proportion of inappropriate TSB among male civil servants in Kelantan was 64.6%. There were 12 significant variables identified from the seven models

developed using multiple logistic regression which were associated with inappropriate TSB. They were non-Muslims (OR 2.6; 95% CI: 1.1,6.7 p= 0.041), high household income (OR 4.5; 95% CI: 1.7, 11.6 p= 0.022), married (OR 0.3; 95% CI: 0.1, 0.7 p=0.035), average assessment of illness severity (OR 0.45; 95% CI: 0.3,0.7 p=<0.001), low information about illness (OR 3.3; 95% CI:1.4, 7.8 p= 0.012), never received appropriate treatment (OR 5.4, 95% CI: 1.0, 29.5 p= 0.042), importance of cost of treatment (OR 0.2; 95% CI: 0.1, 0.4 p= <0.001), never accepting illness when having symptoms (OR 2.8; 95% CI: 0.9, 8.8 p=0.041), embarassesment expressing illness (OR 0.2; 95% CI: 0.1, 0.5 p= <0.001), much job and family responsibilities as barriers (OR 0.3; 95% CI: 0.1, 0.6 p=<0.001), easy access to medications (OR 0.4; 95% CI: 0.2, 0.7 p=0.011) and affordability as a determinant (OR 0.3; 95% CI: 0.1, 0.6 p= <0.001). Main themes which emerged from the FGD sessions were health literacy, stage of seeking treatment, self-treatment, utilization of services, privacy and attitude of healthcare workers.

Conclusions: TSB among male civil servants in Kelantan was poor and factors contributing towards it were multidimensional such as socio-demographic, individual, healthcare provider, psychological, marketing, situational and socio-cultural and family factors. Collaboration is needed from all major stakeholders to improve men's behaviour to seek treatment and increase their uptake of health services to ensure optimum health in men.

Keywords: *Treatment seeking behaviour, government primary healthcare utilisation, male civil servants.*

CHAPTER 1: INTRODUCTION

1.1. Men's Health

Men's health is a discipline that promotes physical, mental and social well-being of men through their life cycle from boyhood to manhood (Ng *et al.,* 2019). Oliffe *et al.,* 2019 classifies men's health as selflessness, openness, well-being, strength, and autonomy. Based on their classification, men's health, fitness and masculine body ideals falls under well-being category. A shift of the health paradigm from illness to wellness can be achieved by paying more attention to men's health promotion and disease prevention.

Most mortalities among men are attributable to non-communicable diseases such as cardiovascular disease, cancers and injuries. According to (Tong *et al.,* 2011), Malaysia is rated among the top Asian countries for mortalities due to cardiovascular diseases and the prevalence of lifestyle risk factors such as smoking is almost 50% among Malaysian men. Compared to women, males in Malaysia accounted more injuries, burdened by more communicable diseases (62%) such as septicemia, lower respiratory infections and HIV, more mental disorders due to drug abuse, alcohol and violence, and more incidence of cancer such as colorectal, lung, nasopharynx, bladder, and prostate. Hypertension was noted to be an important health risk followed by ischemic heart disease, motor vehicle accidents, septicemia, cerebrovascular disease, pneumonia and cancer which is also most common cause of death. The alarming status of Men's health in Malaysia is due to several reasons such as the life expectancy at birth is lower in men compared to women in Malaysia; prevalence of disease and modifiable risk factors contributing to the cause of death is higher among men; the risk factors remain undetected, and early interventions are therefore not

performed; prevalence of male urological conditions and sexual health problems; and prevalence of sexual health problem such as premature ejaculation and erectile dysfunction (ED).

Similarly, in most developed countries, it is widely recognized that life expectancy for men is lower than that of women (Owens, 2015; Ragonese and Barker, 2019) and causes worrisome on men's health. Such discrepancies can also be associated with treatment seeking behavior of men which can be explained by their conformity to the expectations of hegemonic masculinity and also how men differing markedly from women across a range of dimensions including emotional expression, body-image expectations, sexual behavior and treatment-seeking behavior. Despite the fact that men have shorter life expectancy and poorer health than women, a clinical approach to assessing and managing men's health is lacking (Tong and Low, 2012). At every stage of a man's life, health should be optimized based on the life course perspective in order to create opportunities to prevent or slow down the progression of morbidities (Ng *et al.*, 2019).

1.2. Treatment seeking behavior among men

Treatment-seeking behaviour (TSB) can be defined as seeking treatment from trained personnel or at any health facilities. It is a sequence of remedial actions which are influenced by many factors that individuals undertake to rectify perceived ill-health (Mahmood *et al.*, 2014).

Heath-seeking practice or behavior can be refereed to any activity undertaken by individuals who perceived themselves to have a health problem for the purpose of finding a remedy on improving their current health status. This was based on the recognition of symptoms, which were interpreted by individuals who then proceeded

to address the problems (Mishra *et al.*, 2019). Health seeking behavior is to find a way to improve the current status of health although the symptoms are not severe whereas treatment seeking behavior is an action taken to rectify perceived ill-health. Inappropriate treatment seeking behavior may lead to ill-health that are often hidden and/or under-diagnosed, and these may relate to risky behaviours such as drug and alcohol abuse, unsafe sexual behaviours, smoking, and mental health issues such as depression and suicidal thoughts and attempts (Danso-Appiah *et al.*, 2010; El Kahi *et al.*, 2012)

In Malaysia, the disadvantaged status of men's health in which men has shorter life expectancy and poorer health than women are due to men's inappropriate TSB where their health needs are mostly confined to sex specific urological and reproductive health (Tong and Low, 2012). On the other hand, in several countries most healthy men seeks for satisfaction with muscularity and good body image ignoring importance of good physiological health (Brewster *et al.*, 2017; Frederick *et al.*, 2017; Hoffmann and Warschburger, 2018; Jankowski *et al.*, 2017; Lane *et al.*, 2019; Lavender *et al.*, 2017). Studies also proved that men are typically hedonistic, hypercompetitive, and estranged from self-health (Oliffe *et al.*, 2019) and perceived to behave differently when it comes to seeking treatment due to many factors such as ethnicity, environment and economics (Griffith, 2012; Watkins, 2019). Moreover, public health challenge is intensified by insufficient attention to the intersections between masculine norms and men's health within public health systems (Ragonese and Barker, 2019).

1.2.1. Factors influencing men's treatment seeking behavior

Determinants or factors influencing TSB can be largely divided into seven groups which are socio-demographic, situational, healthcare provider, individual, psychological, marketing and family and cultural. Within each of this large group, there are many other sub-domains which contribute towards the factors influencing TSB (Bahrami *et al.,* 2013). Race, gender, age, ethnicity, social, political, economic and cultural meaning shape men's both mental and physical health, life chances and the observed indicators of these structural factors (Allen *et al.,* 2019; Griffith, 2012; O'Gorman *et al.,* 2019; White *et al.,* 2018). Another study reported that health inequalities that is high according to gender, age, education, income, residence and access to healthcare contributes to inappropriate TSB among men and their unfavorable position in term of mortality (Budrevičiūtė *et al.,* 2019). Men's low rates of medical and psychological help-seeking were also associated with disinclination to express emotions/concerns about health, embarrassment, anxiety and fear, and poor communication with health-care professionals (Yousaf *et al.,* 2013). A comprehensive review on determinants or factors influencing TSB is presented in the next chapter.

1.3. Primary health care for men

Primary health care (PHC) is an approach to health and well-being centered on the needs and preferences of individuals, families and communities. It ensures people receive comprehensive care - ranging from promotion and prevention to treatment, rehabilitation and palliative care - as close as feasible to people's everyday environment. (World Health Organization, 2019).

PHC in Malaysia is managed by the Ministry of Health under Family Health Development Division (*Bahagian Pembangunan Kesihatan Keluarga*) (BPKK). Men's health falls under BPKK and is managed by the same unit which manages women's health as well. Malaysians are privileged by having free healthcare for all. By paying a very minimal sum, one can receive treatment for all diseases from the common cold to cancer treatment which are all practically almost free of charge. However, the increased frequency of emergency department visits and hospitalization may explain potential underutilization of outpatient primary and tertiary healthcare resources (Seng *et al.,* 2019).

The underutilization of PHC by men is observed due to many factors such as poor knowledge on available services and inappropriate/poor treatment seeking behavior. In an earlier study, barriers for utilization of PHC was identified as poor education about when to seek care, poverty, lack of drugs and basic laboratory services. Community misperceptions on quality and adequacy of available services are the concluded reason for low use of PHC services (Sule *et al.*, 2008).

A study reported that men completing tertiary education, having lower household sizes, belonging to higher socio-economic status quartile and participation in National Health Insurance Scheme were significantly associated with appropriate treatment seeking behavior (Latunji and Akinyemi, 2018). Providing good services, affordability of such services and proximity were considered the most important service characteristics that leads to appropriate treatment seeking behaviour. Similarly, another study concluded that the educational level of someone who, due to their exposure, will always want to seek information about their health from health workers and the mass media (Otovwe and Elizabeth, 2017).

1.4. Problem Statement

Men in Asia and in Malaysia have a relatively shorter life expectancy, more cardiovascular risk factors and a high rate of cancer compared to those from Europe and more developed countries (Tan *et al.* 2013). Life expectancy at birth for a male in Malaysia is 72.7 years while for a female it is 77.4 years (Mahidin, 2017). The difference of almost 5 years is not only noticed in Malaysia, but in fact all countries around the globe suffer the same problem where women outlive men by almost 5 years the least. Men have poorer health status and shorter life expectancy compared to women in almost all countries in the world which includes Malaysia. Underutilization of health services among men is a major barrier to reduce the burden of disease especially in developing and semi developed countries. Many steps have been taken to tackle this challenge, but this approach misses men who rarely use PHC attributable to TSB and also the lack of awareness of service availability. While not many studies have been done to date on TSB among Malaysian urban and rural men, those that have been done seem to be not for marginalized male population or area to narrow down the factors that contribute to inappropriate TSB.

Currently in Malaysia, the burden of disease among men is quite alarming. According to NHMS 2015, the prevalence of diabetes among males in Malaysia was 16.7%, hypertension 30.8% and dyslipidemia 43.5%. Obesity is also on the rise among men with 36% of Malaysian men being overweight or obese. The prevalence of smoking is also shocking with almost 43% of men reported to be actively smoking. With regards to physical inactivity, almost 30% of Malaysian men were reported to be physically inactive. Men were also almost two times more likely to die from coronary heart disease compared to women and about 1.5 times more likely to die from stroke compared to women.

Cancer among men in Malaysia was almost significantly higher with men three times more likely to have lung cancer compared to women and about 1.5 times more likely to have colorectal cancer compared to women. Erectile dysfunction (ED) among men is also alarming with about 70% of men above the age of 40 reporting ED. The suicide rate among men is also three times higher than women while men are also four times more likely to die for motor vehicle accident (MVA) compared to women (IPH, 2015). This study shows that chronic morbidities among men are on the rise in Malaysia compared to the previous findings from NHMS.

A qualitative study among men in Malaysia identified the notion of masculinity among men and men's definition of masculinity. The participants identified masculinity as having a good body shape, being respected, having success with women, being a family man and having economic power. In relation to health, it could be summarised as men would not be respected if they had found to have diseases and as a man, they have to be in good body shape and appear strong hence having illness will make them look weak and vulnerable (Khalaf *et al.*, 2013). This shows that Malaysian men would not seek treatment despite having diseases and is a major concern.

With regards to Kelantan, a recent study done revealed that sexual health problems among men was high especially premature ejaculation (PE) with a prevalence of 22% (Zamree *et al.,* 2018). Based on the study, it stated that new evidence has emerged between the connection of PE and underlying comorbidities. Its shows that men in Kelantan might be suffering from undiagnosed comorbidities which is worrisome.

As women are bigger consumers of healthcare in Malaysia compared to men and services specific for women such as maternal and child health clinics are well established (Thomas *et al.,* 2011), PHC in Malaysia is striving to improve in their services focused on men. In the name of international development, health care utilization in developing countries and also in Malaysia is receiving more attention but still tends to focus on under five mortalities, maternal health and also infectious diseases such as HIV/AIDS and malaria. MOH has prepared guidelines on men's health called National Men's Health Plan of Action 2018- 2023 but it is based and adapted from other countries such as Ireland, Australia, Brazil and Iran. This guidelines places importance on seven different paradigms which are health promotion, accessibility and appropriate healthcare services, human resource development, men's health information system, research and development, intersectoral collaboration and legislations. (Ng *et al.,* 2019).

Currently, focus on men's health is slowly gaining popularity as it seen as important and Ministry of Health (MOH) Strategic Plan 2016 – 2020 focuses on expanding health services to all parts of the country and leaving no one behind (Ministry of Health, 2016). MOH through the national action plan is encouraging male friendly health services but very little is known about men's preference of such clinics in Malaysia. As men's inappropriate TSB leads to under-utilization of available service and facilities in PHC, current study is initiated to explore the experiences on PHC services and TSB.

1.5. Justification of study

Very few studies have been done in Malaysia on TSB among men or on men's health as a whole. Most studies on men's health are centered around sexual

and reproductive health. This study will gather better evidence on men's TSB and help build better guidelines in the future. The current guidelines by MOH which is the national men's health action plan focuses on six priority areas which are trauma, mental health, benign prostatic hyperplasia, prostate cancer, ED and risk factors for cardiovascular diseases (Ng *et al.,* 2019). While it is an excellent initiative, it still does not cover men's health as a holistic approach.

Based on evidence, men present at a later stage of disease compared to women. We assume it is due to men's notion of masculinity, but there might be other factors involved. Studies in other countries show various factors which influence men's TSB. This study will help identify the various factors associated with men's TSB in Malaysia.

Most government sectors in Malaysia do not have panel doctors and the majority of civil servants might rely heavily on our government PHC services. This study will also help to identify preference towards healthcare among civil servants and also identify their pre-existing comorbidities. Furthermore, this study will venture into the experiences towards TSB and engagement in PHC among men in Malaysia and it will help improve male friendly health clinics and encourage more men to utilize such services.

A recent study suggested that moving marginalized men to the center of research in men's health will foster new way of understanding determinants of men's health that cannot be identified without focusing on populations of men whose health is as influenced by race, ethnicity, and other structures of marginalization as it is by gender and masculinities (Griffith, 2018). Hence, in present study only civil servants

were included as their awareness and knowledge on availability of PHC service. Civil servants observed to be the largest consumer of PHC.

1.6. Research Question

The research questions are:

1) What is the proportion of inappropriate treatment seeking behaviour among male civil servants in Kelantan?

2) What are the factors associated with inappropriate treatment seeking behaviour among male civil servants in Kelantan?

3) What are the morbidities and types of government PHC utilization among male civil servants in Kelantan?

4) What are the experiences on treatment seeking behaviour among male civil servants in Kelantan?

5) What are the experiences on primary healthcare utilization among male civil servants in Kelantan?

1.7. Objectives

1.7.1. General Objective

To study the treatment seeking behavior and its associated factors among male civil servants in Kelantan and to explore the experiences on PHC services and treatment seeking behavior.

1.7.2. Specific Objectives

The specific objectives are:

Part 1:

1. To determine the proportion of inappropriate treatment seeking behavior among male civil servants in Kelantan.
2. To determine the factors associated with inappropriate treatment seeking behavior among male civil servants in Kelantan.
3. To determine morbidities and types of government PHC utilization among male civil servants in Kelantan.

Part 2:

4. To explore experiences on treatment seeking behaviour among male civil servants in Kelantan.
5. To explore experiences on PHC utilization among male civil servants in Kelantan.

1.8. Research hypotheses

Research hypotheses of present study are:

a) There is significant association between socio-demographic factors and inappropriate TSB among male civil servants in Kelantan.

b) There is significant association between situational factors and inappropriate TSB among male civil servants in Kelantan.

c) There is significant association between family and cultural factors and inappropriate TSB among male civil servants in Kelantan.

d) There is significant association between marketing factors and inappropriate TSB among male civil servants in Kelantan.

e) There is significant association between healthcare provider factors and inappropriate TSB among male civil servants in Kelantan

f) There is significant association between individual factors and inappropriate TSB among male civil servants in Kelantan.

g) There is significant association between psychological factors and treatment seeking behaviour among male civil servants in Kelantan.

CHAPTER 2: LITERATURE REVIEW

2.1. Treatment Seeking Behaviour

Treatment seeking behaviour is defined as a sequence of remedial actions which are influenced by many factors that individuals undertake to rectify perceived ill-health (Mahmood *et al.,* 2009). It is an extensive topic where the factors influencing a person's TSB can include socio-demographic factors, individual factors, healthcare provider factors, psychological factors, socio-cultural and family factors, situational factors and marketing factors ((Bahrami *et al.,* 2013).

In other studies, TSB has been defined as the activity undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy (Afolabi *et al.,* 2013). TSB is the act of deciding to seek or not to seek treatment from qualified medical personnel when not feeling well. In its widest sense, health behaviours include all those behaviours associated with establishing and retaining a health state, plus aspects of dealing with any departure from that state (Lubega *et al.,* 2015). Based on the literature, the term TSB is always used interchangeably with the term health seeking behaviour. In this study, it was decided that the term TSB would be used as it was found to be more appropriate to this study. Besides, a similar term was used in which the questionnaire used in this study was obtained from (Bahrami *et al.,* 2013).

2.1.1. Men's treatment seeking behaviour

Men's TSB has always thought to be a difficult phenomenon as men are consistently stereotyped as being reluctant to seek treatment when struck by illness

(Lubega *et al.,* 2015). To date, studies involved in men's TSB and its associated factors are still limited. Based on literature, there is a growing evidence based on gender-specific illnesses where it shows that men often have delayed TSB when they become ill (Galdas *et al.,* 2005). TSB in Malaysia was identified based on gender specific illness for both men and women. For women, TSB was mostly based on diseases related to cancer such as breast and cervical cancer. For men, TSB was identified based on three main areas which were sexual related illness, chronic diseases and infectious diseases. Sexual related illness were conditions such as erectile dysfunction, premature ejaculation and gay traits in Malaysia identifying diseases related to same sex sexual relationships. Chronic diseases were mostly related to Diabetes Mellitus while infectious diseases were diseases such as gonorrhea and HIV (Ab Rahman *et al.,* 2011; Norsa'adah *et al.,* 2012; Inche Zainal Abidin *et al.,* 2014; Low *et al.,* 2016).

According to (Navneet *et al.,* 2005), there is consistent evidence that women consult PHC more frequently than men. Women seem to consult PHC twice as much as men, and men consult PHC only late during the illness stage. As an example, men seem to present at a later stage in cancer compared to women who usually present at an early stage. Many studies have been done concerning men's health, but a very few have been done in Malaysia especially with regards to treatment seeking behaviour (Kapur *et al.,* 2005). Based on the literature, most studies done in Malaysia on men's health revolved around the areas of smoking, gender-specific illness such as sexual health issues and diseases related to sexually transmitted diseases (STD). In the few available studies, data seems to be contradictory as well.

2.1.2. Inappropriate TSB

While not many studies on TSB among men were done in the past, quite a number of studies were done among the general population and specific groups as well such as adolescents and young adults. In general, TSB was found to be better in women compared to men. In western countries especially, women consulted PHC services twice more compared to men. In countries such as Bangladesh, Pakistan and other countries with poor socioeconomic background, men seem to have a better TSB because they are the sole decision makers at home. Women have no say at home, and it is up to the husband if he would allow the wife or children to seek treatment (Ray-Mazumder 2001; Shaikh and Hatcher 2004).

According to a study conducted in Iran, 68% of the population had inappropriate TSB (Bahrami *et al.,* 2013). Another study done in Uganda among men stated that almost 63% of its population had poor TSB and denied free voluntary medical checkup (Lubega *et al.*, 2015). According to another study done in Karachi, it states that 22% of the public had poor treatment seeking behaviour and will never go to a healthcare facility (Faisal *et al.,* 2015). Some of the common findings which lead to inappropriate TSB were the lack of support of family members, distance of healthcare facility, attitude of healthcare workers, sociodemographic characteristics such as age and occupation, cost of care, cultural beliefs and influence of friends.

2.2. Determinants of TSB

Studies on determinants of TSB are limited and studies involving determinants of TSB among men are even lesser. Based on a literature search, there were lesser than twenty studies done around the world on TSB and there were only two qualitative studies done in Malaysia on TSB among men. Hence, due to limited

literature on men's TSB, the current study includes literature findings from the general population and certain specific population such as women, adolescents and young adults.

Based on a systematic review done on identifying factors associated with men's TSB and delay in seeking treatment, only about 40 studies were found to be done among men. Out of the 40 studies, 19 were qualitative while another 21 were quantitative studies. Majority of the studies were published before the year 2000 making it all very old literature and might not be significant in present time. The findings were limited and focused mainly on four main factors which were cognitive, emotional, health-service related and socio-demographic (Yousaf *et al.*, 2015).

Cognitive factors were dependent on knowledge, attitudes and beliefs mainly. They were internalisation of masculine norms, negative attitudes towards emotional expression, need for independence or control, viewing symptoms as minor or insignificant, not seeing oneself as susceptible to disease, lack of knowledge about symptoms, lack of knowledge about services and negative attitudes towards help-seeking. Emotional factors were embarrassment about treatment-seeking, anxiety about using medical services, fear about discovering a disease and distress due to feelings of weakness and vulnerability.

Health-service related factors were cost of service, lack of regular services for men, restricted opening hours of general practitioners, unavailability of health service information, poor communication with health professionals and distrust or lack of credibility of health professionals. Socio-demographic factors were educational status, marital status, young age and full-time employment or the lack of time.

2.2.1. Individual factors

Individual factors contributing to TSB include previous experience of any illness, perceived threat and severity of illness, knowledge on illness, personal health beliefs and health literacy.

Perceived threat of illness

Individual perceived threat of illness played a major role in TSB. If a disease is perceived as severe such as pneumonia, jaundice, fits or any other life-threatening conditions, the people would consult a qualified doctor. It also states that people consider or only think of qualified doctors when it comes to acute life-threatening conditions, otherwise they will never think of consulting a qualified doctor. For other conditions which were perceived to be minor such as arthritis and body weakness, the people would buy medication from drug sellers or pharmacies (Sharmin *et al.*, 2009). An interesting finding from this study also states that adult problems such as headache, gastric problems, diabetes and high blood pressure (*p*-value 0.036) were significantly not associated with professional healthcare providers as it was perceived to be non-treatable diseases. In another study conducted among university students in Nigeria, it was noted that students visited either a pharmacy or healthcare provider based on their perceived intensity of illness (*p*-value 0.026) (Afolabi *et al.*, 2013).

Health literacy and health beliefs

Health literacy played a vital role in an individual's treatment seeking behaviour as well. According to NHMS (National Health and Morbidity Survey) 2015, Malaysian adults had adequate health literacy of 6.6% with no significant

difference between men and women (IPH, 2015). Adequate health literacy and awareness regarding health will increase the uptake of treatment seeking among the population. Health beliefs such as illness would not harm men and poor knowledge of disease leads to poor decision making and poor TSB (Gulliver *et al.,* 2010; Lubega *et al.,* 2015). According to Bahrami *et al.,* (2013), previous experience of disease such as similar symptoms leads to poor TSB. This study found that almost 70% went to a qualified health care professional during illness, but they often presented late. Majority tried self- medicating initially before seeing a doctor and the rest preferred to visit a traditional healer or buying medication from the pharmacy.

Table 2.1: Summary of individual factors related to TSB

Factor	Reference	Association with TSB
Knowledge of disease	Gulliver *et al.,* 2010	Poor knowledge of disease leads to poor treatment seeking behaviour
Health beliefs	Lubega *et al.,* 2015	Illness would not harm men thus prevents them from seeking treatment.
Previous experience of disease	Bahrami *et al.,* 2013	Similar symptoms leads to self-treatment/ don't go to clinics

2.2.2. Socio-cultural and family factors

Socio-cultural and family factors contributing to TSB include the role of spouse and family in decision making, dependence of others for treatment seeking, culture and religious beliefs.

Family support in decision making

When it comes to decision making on seeking treatment, a study conducted in Bangladesh concludes that only about 7% of males receive advice from their spouse

and children regarding treatment seeking. In contrast and against popular belief, females receive more advice on treatment seeking from their spouse and children with 54% of females having their decisions based on their husbands and children (Mahmood *et al.,* 2009). According to studies done by Krishnaswamy *et al.,* (2009) and Bahrami *et al.,* (2013), it is evident that lack of support from family members especially spouse (*p*-value 0.048) leads to poor TSB. On the other hand, these studies also highlighted that men prefer to care for their family rather than seeking treatment for themselves.

Influence of friends in decision making

In a study conducted in Malaysia on men's health issues, the important motivators in positive treatment seeking and healthy lifestyle behaviour were wives and friends. It stated that men valued family values and advice from friends and family hence they adopt a healthy lifestyle and a positive TSB (Low *et al.,* 2010). According to a study conducted in Nigeria among university students, a vast majority of them were influenced by peers (*p*-value 0.013) in terms of TSB (Afolabi *et al.,* 2013).

Cultural beliefs

According to Afolabi *et al.,* (2013), participants in the study preferred to consult spiritual care as the first line of treatment prior to engaging with professional healthcare services due to spiritual beliefs. In Malaysia, the similar scenario can be found where people sometimes choose to seek treatment from traditional healers or more commonly known as *'Tok Bomoh'*. This is method of treatment is both influenced by culture and religion for many generations. The same study in Nigeria also stated that some of the participants did not believe in taking conventional

medications due to spiritual beliefs as well. Spirituality has been seen to play an important role in TSB of the participants. The study also stated the importance of integrating spiritual healing with modern medicine to obtain proper treatment seeking among the participants and to address shortcomings due to spiritual healing. Furthermore, demographic factors such as religion also was a factor in TSB (Afolabi *et al.,* 2013).

Table 2.2: Summary of socio-cultural and family factors related to TSB

Factor	Reference	Association with TSB
Family support	(Krishnaswamy *et al.*, 2009)	Lack of support from families especially spouse
Family responsibilities	(Bahrami *et al.*, 2013)	Men rather take care of their family rather than themselves
Cultural beliefs	(Lubega *et al.*, 2015)	Men did not seek treatment because will be seen as weak.
Peer support	(Afolabi *et al*., 2013)	Wrong information from friends prevented treatment seeking

2.2.3. Socio-demographic factors

Socio-demographic factors influencing TSB include age, occupation, socioeconomic status, gender, marital status and locality of the population which was urban or rural. Findings from a large population-based study in Iran noted that demographic factors such as age, occupation and education status played a huge role in treatment seeking behaviour (Bahrami *et al.*, 2013).

Socio-economic status

According to a survey done on developing countries, it was found that the socioeconomic status of individuals does influence their TSB. The financial

capability and the type of work an individual does plays a role in their TSB (Gwatkin *et al.*, 2007; Faisal *et al.*, 2015). In another study, it was found that though poor households reported higher proportions of being ill compared to wealthy households, but only 43% of those from poor households sought treatment compared to 54% from rich households (Mahmood *et al.*, 2009). Here, it is evident that socio-economic status plays a vital role in treatment seeking where those who are poor have poorer TSB compared to those who are wealthy. This is because those from poor backgrounds do not have sufficient money to seek professional healthcare and their work nature doesn't permit them to have much time to seek treatment. If they were to spend their time and seek treatment, then they will be losing on their income which is usually on a daily basis (Faisal *et al.*, 2015). The same study also quoted that those from poor households preferred to visit a village doctor or traditional healer compared to those from rich households who visited professional healthcare doctors. Visiting a village doctor or traditional healer was cheaper compared to visiting a professional healthcare doctor.

Age and level of education

As age increases and the higher the education level of an individual, it contributed to better TSB according to a study done in Iran (Bahrami *et al.*, 2013). This was because the increase in age caused more health problems among the individuals and better education meant the individuals had better knowledge on disease and awareness on seeking treatment.

Marital status

Marital status was also one of the factors in determining an individual's TSB. Married men seemed to show better TSB compared to single men. Love for the

family and persuasion from the spouse (*p*-value 0.01) made men to have better TSB compared to single men (Lubega *et al.,* 2015). In addition, married men were also much older compared to those are single, therefore married men had more health problems and the need to seek treatment.

Occupation

On the contrary, those with occupation showed poorer TSB compared to those without a job. The reason for this is that those with jobs spend most of their time at work and have little or no time to seek treatment. At the same time, it was noticed that those with lower income showed poor TSB (Mahalik *et al.,* 2007; Mahmood *et al.,* 2014; Lubega *et al.,* 2015).

Locality

Another socio-demographic determinant in TSB was locality of the population. Urban population had an adequate health literacy of 7.8% compared to those from the rural population of only 2.3%. This vast difference in health literacy can explain the reason why people in rural areas prefer to avoid visits to clinics and hospitals and often self-treat their illness or visit a traditional healer (IPH, 2015). The NHMS 2015 findings also stated that Chinese had the highest health literacy of 10.6% and Malays only had an adequate health literacy of 6.0%. This is important as most of the population in Kelantan consist of Malays. The study also highlighted that civil servants have the highest adequate health literacy of 8.5%. This may be the result of proper health education and exposure among the civil servants in Malaysia.

Table 2.3: Socio-demographic factors related to TSB

Factor	Reference	Association with TSB
Age	Bahrami *et al.,* 2013	Increasing age contributed to better treatment seeking behaviour

Income	Mahalik *et al.,* 2007	Lower income group showed poor treatment seeking behaviour
Marital status	Lubega *et al.,* 2015	Married men showed better treatment seeking behaviour
Occupation	Faisal *et al.,* 2015	Those with professional occupation showed poor treatment seeking behaviour
Education	Bahrami *et al.,* 2013	Tertiary education and above contributed to better treatment seeking behaviour

2.2.4. Psychological factors

Psychological factors influencing TSB include the attitude of men, the notion of masculinity and perceived vulnerability to illness and health-related problems. Attitude, where men self-diagnose themselves and think that doctors are going to give the same diagnosis and also perception of health status where nothing can harm men, leads to poor TSB (Bahrami *et al.,* 2013; Mahmood *et al.,* 2014).

Notion of masculinity

The notion of masculinity, where a men's ego prevents them from seeking treatment is a significant factor when it comes to TSB (Lubega *et al.,* 2015). Many studies have identified masculinity as one of the leading factors which lead to delayed treatment seeking among men. However, the reason behind this has still limited attention and needs more research (Galdas *et al.,* 2005). Men seeking help or adopting healthy lifestyles are perceived as demonstrating weakness, and these behaviours represent a threat to their masculinity. A qualitative study among men in Malaysia identified the notion of masculinity among men and are men's definition of masculinity. The participants identified masculinity as having a good body shape,