



## Comparison of health-seeking behaviour between urban and rural malay population of negeri sembilan, malaysia

Mohd Dzulkhairi Mohd Rani<sup>\*1</sup>, Muslimah Ithnin<sup>1</sup>, Nadeeya 'Ayn Umaisara Mohamad Nor<sup>1</sup>, Norsham Juliana<sup>1</sup>, Nadia Mohd Effendy<sup>1</sup>, Sahar Azmani<sup>1</sup>, Khadijah Hasanah Abang Abdullah<sup>1</sup>, Muhammad Shamsir Mohd Aris<sup>1</sup>, Izuddin Fahmy Abu<sup>2</sup>

<sup>1</sup>Faculty of Medicine and Health Sciences, Universiti Sains Islam Malaysia, Kuala Lumpur, Malaysia

<sup>2</sup>Institute of Medical Science Technology (UniKL MESTECH), Universiti Kuala Lumpur, Kajang, Selangor, Malaysia



### Article History:

Received on: 06.07.2019

Revised on: 05.10.2019

Accepted on: 15.10.2019

### Keywords:

Healthcare facility,  
Health-seeking  
behaviour,  
Malay population,  
Rural,  
Urban

### ABSTRACT

There is a growing interest on research related to health-seeking behaviours. However, there are minimal studies in Malaysia which focus on this issue. This paper aimed to determine the health-seeking behaviours among the Malay population and its association based on the localities of the urban and rural population. To achieve this purpose, a cross-sectional survey was conducted using face-to-face interview method. A total of 480 respondents participated in this survey with the majority (57.7%) of them were from a rural area. Among all the subjects, 4.9% and 5.4% of urban and rural participants respectively, did not seek treatment when they were sick. The reasons being are they chose to ignore the pain (80%), time-consumption (8%), and they do not believe in modern treatments (8%). A higher number of rural participants chose public healthcare facilities compared to urban (82.3% vs 72.6%,  $p < 0.001$ ), whereas a higher number of urban participants chose private healthcare facilities in contrast to rural participants (25.3% vs 16.4%,  $p < 0.001$ ). For participants with chronic diseases, 5.3% did not go for follow-up, 91.2% rely on healthcare staffs for information on the diseases, and 18.9% took traditional or supplementary medicine. Majority of the participants are in agreement that the accessibility to public healthcare facilities in terms of distance, transportation and operational time, as well as the services to get treatments, were good. However, there is a small number of participants who did not seek for treatments, including those with chronic diseases.

### \*Corresponding Author

Name: Mohd Dzulkhairi Mohd Rani

Phone:

Email: [drdzulkhairi@usim.edu.my](mailto:drdzulkhairi@usim.edu.my)

ISSN: 0975-7538

DOI: <https://doi.org/10.26452/ijrps.v10i4.1742>

Production and Hosted by

IJRPS | <https://ijrps.com>

© 2019 | All rights reserved.

### INTRODUCTION

Numerous research have long been interested in what facilitates the use of health services, and what influences people to behave differently with their health. This is termed as health-seeking behaviour (Tee *et al.*, 2011; Dawood *et al.*, 2017). According to (Mackian, 2003), there are two approaches to understanding health-seeking behaviours; the first approach understands the utilization of the healthcare system, and the second approach is to understand the process of illness response. Several factors are determining how people engage with healthcare systems including

socio-demographic of education, social structures, cultural beliefs and practices, gender issues, economic and political systems, environmental conditions, disease patterns and the healthcare system itself (Mackian, 2003; Shaikh *et al.*, 2008).

Malaysia has a dual-tiered system of healthcare services, which consist of the public and private sectors. The Ministry of Health manages the public healthcare sector, Malaysia, which includes various centres from rural and community clinics, to district and tertiary specialist hospitals throughout the country. The private sector, on the other hand, contains general practitioner clinics, and private medical centres and hospitals. In comparison to the tax-funded public healthcare sector, private sector services rely mostly on a self-paying fee-for-service arrangement, and its service increases through third party paying, such as via health insurance mechanisms (Chee, 2008; Quek, 2009).

Another option for healthcare utilization in Malaysia is via community pharmacy. A community pharmacy or also known as retail pharmacy provides prescription drugs, among other products to a specific community group or region. Community pharmacists oversee the fulfilment of medical prescriptions and are also available to advise on their offerings of over-the-counter drugs (Sing, 2001).

The availability of options for healthcare utilization in Malaysia might influence the behaviour of illness responses among people. The Malaysian population is usually categorized into two different localities; urban and rural, which is based on population density. As defined by the (Department of Statistics, 2010), Malaysia: Population and Housing Census 2010, urban is a gazetted area and its adjoining built-up areas which had a combined population of at least 10,000 during the census, or a specific development area having a population of 10,000 people or more where at least 60 per cent of them (aged 15 years and above) are engaged in non-agricultural activities. In contrast, rural is an area with a population of fewer than 10,000 people with predominantly agriculture and natural resources. These physical differences will most definitely influence health-seeking behaviour in several determinants including distance and physical access, the economic cost of care, travel, transportation, time, and also cultural beliefs (Kloos, 1990; Andersen, 1995; Mackian, 2003). Data from the Population and Housing Census 2010 indicated that 50.8% of Malaysian citizens are Malays and that studies have reported that other than modern medicine, many of them still choose traditional medicine for their treatment of illnesses (Razali *et al.*, 1996; Hasan *et al.*,

2009).

A proper understanding of health-seeking behaviours in the community may reduce delay in diagnosis, improve treatment compliance and improve health promotion strategies in a variety of contexts. Therefore, this study was designed to determine the health-seeking behaviour among the Malay population in Malaysia and their association between localities of urban and rural.

## MATERIALS AND METHODS

### Research Design

A cross-sectional study was carried out to evaluate the first action towards accessing healthcare facilities and medicine-taking behaviour among the general public. This study was conducted from October 2017 to February 2018 in the Negeri Sembilan state of Malaysia. Study approval was obtained from the Research Ethics Committee, Universiti Sains Islam Malaysia [USIM/JKEP/2017-27].

### Study Population

The selection of district was performed using a stratified two-stage sampling method to identify the villages, while the range of respondents in these villages were based on convenience sampling. Two localities were selected for study comparison; Ampangan is representing the urban area, while Kuala Pilah and Jelebu are rural areas located in Negeri Sembilan, Malaysia.

Adult subjects comprised of both genders who can read and write in Malay language and have given their written informed consent were included in this study, whereas those below 18 years old and disagree to participate were excluded.

### Data Collection Tool

The questionnaire used to obtain data from the participants were adapted based on previous literature and Kroeger's framework of health-seeking behaviour (Kroeger, 1983). The questionnaire consisted of three parts which were mainly used to evaluate the health-seeking and medicine-taking behaviours among the general public.

The first part of the questionnaire was to obtain demographic data of the participants, which include age, gender, ethnicity, education level, monthly income and presence of chronic diseases. If a participant had a presence of chronic disease, additional questions on follow-up treatment, seeking information on the disease, and additional traditional medicine acquired would be asked.

The second part evaluated the health-seeking behaviour by asking the participants whether they

will seek for treatments when experiencing any health problems, and the third part evaluated the accessibility to public healthcare facilities and also accessibility to obtain medicine and treatment.

To improve the clarity of the questionnaire items, a pilot test was conducted with thirty respondents who had similar profiles with the target population of the study. Based on the comments from the participants, several questionnaire statements were modified for better clarity, but not to change its meaning.

### Data Collection Method

A face-to-face interview using the questionnaire was conducted to obtain the data from all participants in this survey. The researchers explained the aim of the study before data collection and signed consent forms were obtained from all participants before they were enrolled in the survey.

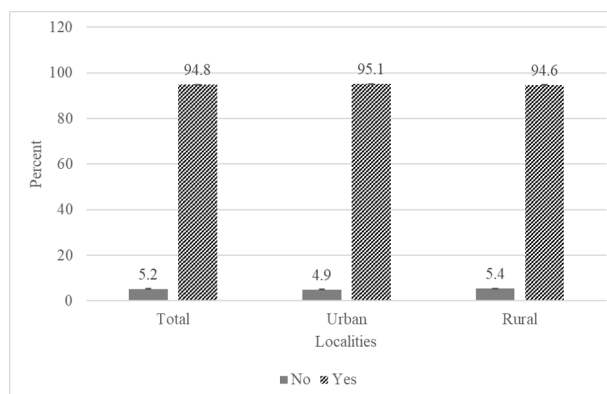
### Statistical Analysis

The data were coded and analysed using Statistical Package for the Social Sciences (SPSS) version 23.0. Frequencies and percentages presented descriptive statistics. Chi-square test was performed to find the association between health-seeking behaviour and the social-demographic data of localities among participants. *P*-value of <0.05 with a confidence level of 95% was considered significant.

## RESULTS AND DISCUSSION

Table 1 presents the socio-demographic data of the participants. The mean age for all the participants is 53.56 (SD=17.017); 53.33 (SD=17.954) for urban population and 53.73 (SD=16.322) for rural people. Majority of the participants were female (59.0%), while 41.0% were male. The education level of the participants was distributed from college or university (16.3%), secondary school (50.4%), primary school (29.2%) to no formal education (3.5%). About the monthly household income of the participants, the majority obtain a low monthly income of MYR3,000.00 (87.2% from urban and 87.7% from rural area). The mean individual and family monthly expenses for health is higher among urban participants compared to rural. As for the presence of chronic diseases, 47.1% of the participants were suffering from chronic diseases such as hypertension, diabetes, and asthma.

Figure 1 shows the result for the question of whether they will seek treatment if they experienced any health problems; the majority of the participants (94.8%) answered yes. 4.9% of urban and 5.4% of rural participants will not seek treatment and ignore their sickness with reasons shown



**Figure 1: Seeking treatment behaviour when respondents are sick, n=455**

in Table 2. For both localities, the majority of the participants (80%) does not care about the pain.

As demonstrated in Table 3, the majority of the participants with chronic diseases (94.7%) are on follow-up treatment. There is no significant difference between follow-up treatment and the behaviour of seeking information on the disease between urban and rural groups. However, a considerable difference ( $p=0.023$ ) in the usage of supplements or traditional medicine between the two localities were observed; urban participants had a higher tendency to acquire additional supplements or conventional dose (25.8%) as compared to rural participants (13.8%).

As displayed in Table 4, there is a significant difference between modern treatment choices based on localities. A higher percentage from the rural population chose public healthcare services (89.3% vs 72.6%,  $p<0.001$ ), and in contrast, a higher percentage of urban participants chose private healthcare facilities compared to rural (25.3% vs 9.9%,  $p<0.001$ ). However, no significant association between traditional treatments of choice between the localities; 65.7% of the total participants have used traditional massage, followed by cupping therapy (28.2%) and Islamic medical practices (2.9%).

Table 5 shows the accessibilities to public healthcare facilities and behaviour of seeking treatment and medicines at those centres. For both urban and rural localities, majority of the participants could not access public healthcare facilities in terms of distance (93.6% vs 95.8%), transportation (88.7% vs 91.2%) and operational time (98.5% vs 99.6%). However, more than half of the participants agreed that the waiting time at public healthcare facilities is burdening for both urban and rural localities (53.2% vs 52.7%). In terms of accessibility to get treatment and medicine, majority of the participants (more than 90%) were happy with the services, found it

**Table 1: Socio-demographic information of the participants based on localities, n=480**

Variables	Total, n (%)	Urban, n (%)	Rural, n (%)
Age, year [mean (SD)]	53.56 (17.014)	53.33 (17.954)	53.73 (16.322)
<b>Gender</b>			
Male	197 (41.0)	74 (36.5)	123 (44.4)
Female	283 (59.0)	129 (63.5)	154 (55.6)
<b>Educational level</b>			
No formal education	17 (3.5)	2 (1.0)	15 (5.4)
Primary school	140 (29.2)	56 (27.6)	84 (30.3)
Secondary school	242 (50.4)	104 (51.2)	138 (49.8)
College/University	78 (16.3)	40 (19.7)	38 (13.7)
Other	3 (0.6)	1 (0.5)	2 (0.7)
<b>Working status</b>			
Not working	319 (66.5)	150 (73.9)	169 (61.0)
Working	161 (33.5)	53 (26.1)	108 (39.0)
<b>Household income per month, RM</b>			
Less than 3000	420 (87.5)	177 (87.2)	243 (87.7)
3001 and above	60 (12.3)	26 (12.6)	34 (12.3)
<b>Individual health expenses per month, RM</b>			
	22 (73.142)	40 (101.654)	8 (32.910)
<b>Total family health expenses per month, RM</b>			
	22 (102.618)	36 (134.124)	12 (67.786)
<b>Chronic disease</b>			
No	254 (52.9)	107 (52.7)	147 (53.1)
Yes	226 (47.1)	98 (47.3)	130 (46.9)

**Table 2: Reasons for respondents not seeking treatment, n=25**

Reason	Total, (%)	Urban, (%)	Rural, (%)
Do not believe / like the health facilities provided	2 (8.0)	2 (20.0)	0 (0)
Distance / vehicle problems	1 (4.0)	1 (10.0)	0 (0)
Not enough time / busy with work	2 (8.0)	0 (0)	2 (13.3)
Do not care about the pain	20 (80.0)	7 (70.0)	13 (86.7)

**Table 3: Health-seeking treatment for participants with chronic diseases, n=226**

Variables	Total, (%)	Urban, (%)	Rural, (%)	$\chi^2$	-value
<b>Follow-up treatment</b>					
No	12 (5.3)	5 (5.2)	7 (5.4)	0.003	0.935
Yes	214 (94.7)	91 (94.8)	123 (94.6)		
<b>Obtaining information on the diseases from:</b>					
Staff / Health personnel	206 (91.2)	86 (89.6)	120 (92.3)	0.508	0.476
Others	20 (8.7)	10 (10.4)	10 (7.7)		
<b>Used supplements / traditional medicine</b>					
No	18 (81.1)	72 (74.2)	112 (86.2)	5.147	0.023*
Yes	43 (18.9)	25 (25.8)	18 (13.8)		

\*Statistically significant P<0.05.

**Table 4: Choices of treatments among the participants**

Choices of treatments	Total, (%)	Urban, (%)	Rural, (%)	$\chi^2$	-value
<b>Modern treatments, n=452</b>					
Public healthcare facility	372 (82.3)	138 (72.6)	234 (89.3)	21.462	<0.001*
Private healthcare facility	74 (16.4)	48 (25.3)	26 (9.9)		
Pharmacy	6 (1.3)	4 (2.1)	2 (0.8)		
<b>Traditional treatments, n=103</b>					
Traditional massage	67 (65.7)	32 (69.6)	35 (62.5)	5.442	0.323
Cupping therapy	28 (28.2)	9 (19.6)	19 (33.9)		
Islamic medical practitioner	3 (2.9)	2 (4.3)	1 (1.8)		
Acupuncture	2 (2.0)	2 (4.3)	0		
Shaman	2 (2.0)	1 (2.2)	1 (1.8)		

\*Statistically significant P<0.05.

**Table 5: Accessibility and obtaining treatment and medicine at public healthcare centres, n=465**

Accessibility	Urban, n (%)		Rural, n (%)	
	Agree	Disagree	Agree	Disagree
To the public healthcare centres				
Location was near to house	190 (93.6)	13 (6.40)	251 (95.8)	11 (4.2)
Have no transportation problems	180 (88.7)	23 (11.3)	239 (91.2)	23 (8.8)
Operational hour is suitable	200 (98.5)	3 (1.5)	261 (99.6)	1 (0.4)
Waiting time is not burdening	95 (46.8)	108 (53.2)	124 (47.3)	138 (52.7)
To get treatment and medicines				
Health services provided are good	197 (97.0)	6 (3.0)	261 (99.6)	1 (0.4)
Medicines needed can easily be obtained	200 (98.5)	3 (1.5)	262 (100)	0
Modern medicines are easier to get than traditional medicines	200 (98.5)	3 (1.5)	261 (99.6)	1 (0.4)
Comfortable with the services	192 (94.6)	11 (5.4)	260 (99.2)	2 (0.8)
Will recommend to family and friends to get treatment at government health centres	188 (92.6)	15 (7.4)	261 (99.6)	1 (0.4)



easy to get medicine, comfortable with the services, will recommend public healthcare facilities to family and friends, and that modern medicines are easier to obtain compared to traditional treatments.

The present study revealed that most people prefer to consult a physician when facing any health problems with only a small number will consult a pharmacist. This is in line with the 2015 National Survey on the Use of Medicines (NSUM, 2015), which reported that approximately 84% of the population would consult the government or private physicians for any health problems, while only 11% practised self-medication. However, the number of participants who did not seek treatment when confronted with any medical issues is worrying. 4.9% urban and 5.4% rural participants chose to ignore their sickness with the most popular reason given is that they do not care for the illness or pain. This ignorance to seek for treatment should be further explored to better understand the need and awareness of diseases in this study population.

For participants who do seek for treatments, the majority of them preferred public healthcare services, more significantly than private facilities and pharmacy. The urban population recorded a higher percentage of choosing private healthcare facilities compared to rural, and in reverse, the rural group had a higher percentage of choosing public healthcare facilities. Physical determinants, including demographic factors, had been reported to influence health-seeking behaviour among people. In this regard, the urban population had more option in selecting the preferred healthcare facility that suits their need such as time and hospitality (Kloos, 1990; Andersen, 1995; Shaikh *et al.*, 2008).

Since the mean age of the participants involved in this study was 53.56 years old, a high number of participants (47.1%) were reported with at least one chronic disease. Of these, 5.3% did not go for follow-up treatments. As Malaysia is reported to have a high prevalence of the non-communicable disease, including hypertension and diabetes mellitus (Institute for Public Health, 2015), this data is paramount. These chronic diseases may lead to complications such as heart attack, blindness and also amputation if they are not controlled and well-managed. Previous studies conducted among disease population showed that their level of knowledge and awareness on chronic diseases remain moderate even though they consistently received relevant information from healthcare practitioners (Ding *et al.*, 2006; Mahajan, 2012).

Majority of the participants with chronic diseases rely on healthcare personnel to gain information on

the diseases. Even with the widespread use of mass and social media to spread knowledge and awareness about chronic diseases, this disease group especially the elderly population still rely on healthcare personnel to obtain information (Al-Dharrab *et al.*, 1996; Nasir *et al.*, 2008). Thus, healthcare personnel, especially primary healthcare physician, must be updated on the knowledge of the diseases, their consequences, and proper management as this population depend merely on face-to-face education from healthcare personnel.

Interestingly, there was a higher number of urban participants who took traditional or supplementary medication. Previous studies have reported that the prevalence of conventional medicine usage in Malaysia was high with the odd increasing among Malay ethnicity, those being married and have higher income level (Aziz and Tey, 2009; Silvanathan and Low, 2015). More studies shall be conducted on the use of traditional medicines together with generic medication as it may result in herb-drug interactions, and may also influence the medication regimen and therapy, especially in the disease group.

The World Health Organization defined traditional medicine as the total of the knowledge, skills, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness (WHO, 2013). The traditional massage was the most common conventional treatment obtained by participants in both localities, followed by cupping therapy and Islamic medical practitioners. According to (Rahman *et al.*, 1987), the definition of massage or locally known as *urut* is the effective massage technique used by Malay traditional healers. Currently, traditional Malay massage had been integrated with public hospitals in Malaysia, which have been practising conventional and complementary medicine. The Ministry of Health had recognized this traditional technique in 2004 for the use of chronic pain and stroke (Abuduli *et al.*, 2011). Cupping therapy is also a standard traditional treatment used among Muslim as a treatment for cure. As narrated by Ibn 'Abbas, the Prophet Muhammad said, "Healing is in three things: A gulp of honey, cupping and branding with fire (cauterizing). But I forbid my followers to use (cauterization) branding with fire." (The Hadith, n.d.).

A systematic review comparing the performance of private and public healthcare systems in low- and middle-income countries concluded that the pub-

lic healthcare services and facilities were comparable to the production of private healthcare sector (Basu *et al.*, 2012). Results from this study also showed that the majority of the participants agreed that the accessibility to the public healthcare facilities in Malaysia was excellent in terms of distance, transportation and even the operational hour. The service to get treatments and medication was also excellent as agreed by the majority of the participants. However, due to the high volume of patients at public healthcare services, the waiting time is considered burdening for the participants, which are in agreement with the report by (Basu *et al.*, 2012).

### Limitations

This study was limited to the first action that will be taken when the participants face any health problems. This may or may not reflect the actual work of health-seeking behaviour in different health conditions. This study was also limited to the Malay population living in the state of Negeri Sembilan; therefore the data cannot be generalized to all Malaysians in the country especially for traditional medicine used among other ethnic groups.

### CONCLUSION

Most participants tend to consult public physicians as the first action to treat any health problems, followed by private physician. There is a small group within the population who would choose to consult pharmacists as the first action when faced with any health problems, while some others decided not to seek treatment. More studies on health-seeking behaviour in this group of people shall be conducted to explore the barriers in seeking treatment. The high prevalence of the use of traditional medicine shall also be studied with precaution. Overall, the accessibility towards public healthcare facilities and services in Malaysia is considered good as agreed by the majority of the respondents.

### ACKNOWLEDGEMENT

This study was funded by the USIM/BANKRAKYAT\_K1/FPSK/052002/42117 research grant under the Mizan Research Center, Universiti Sains Islam Malaysia. The authors are grateful to the participants who were involved directly and indirectly in this study. The authors also thank the JKKK and KOSPEN DUN Ampangan, Kuala Pilah and Jelevu who contributed their time and energy to the success of this study.

### Conflict of Interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship,

and publication of this article.

### REFERENCES

- Abuduli, M., Ezat, S. E., Aljunid, S. 2011. Role of traditional and complementary medicine in universal coverage. *Malaysian Journal of Public Health Medicine*, 11:1-5.
- Al-Dharrab, S. A., Mangoud, A. M., Mohsen, M. F. A. 1996. knowledge, attitude and practice (kap) of primary health care physicians and nurses towards hypertension: a study from dammam, saudi arabia. *journal of family & community medicine*.
- Andersen, R. M. 1995. Revisiting the Behavioral Model and Access to Medical Care: Does it Matter? *Journal of Health and Social Behavior*, 36(1):1-10.
- Aziz, Z., Tey, N. P. 2009. Herbal medicines: Prevalence and predictors of use among Malaysian adults. *Complementary Therapies in Medicine*, 17(1):44-50.
- Basu, S., Andrews, J., Kishore, S., Panjabi, R., Stuckler, D. 2012. Comparative Performance of Private and Public Healthcare Systems in Low-and Middle. *PLOS Medicine*, 9(6):1001244.
- Chee, H. L. 2008. Ownership, control, and contention: Challenges for the future of healthcare in Malaysia. *Social Science & Medicine*, 66(10):2145-2156.
- Dawood, O. T., Hassali, M. A., Saleem, F., Ibrahim, I. R., Abdulameer, A. H., Jasim, H. H. 2017. Assessment of health seeking behaviour and self-medication among general public in the state of Penang. *Malaysia. Pharmacy Practice*, 15(3):991-991.
- Department of Statistics 2010. Population and Housing Census of Malaysia 2010. *Population Distribution and Basic Demographic Characteristic. Putrajaya, Malaysia*.
- Ding, C. H., Teng, C. L., Koh, C. N. 2006. Knowledge of diabetes mellitus among diabetic and non-diabetic patients in Klinik Kesihatan Seremban. *Medical Journal of Malaysia*, 61(4):399-404.
- Hasan, S. S., Ahmed, S. I., Bukhari, N. I., Loon, W. C. W. 2009. *Use of complementary and alternative medicine among patients with chronic diseases at outpatient clinics*, volume 15.
- Institute for Public Health 2015. National Health and Morbidity Survey 2015 (NHMS) Vol. II: Non-Communicable Diseases, Risk Factors & Other Health Problems. Kuala Lumpur: Ministry of Health Malaysia. 2.
- Kloos, H. 1990. Utilization of selected hospitals, health centres and health stations in Central,

- Southern and Western Ethiopia. *Social Science and Medicine*, 31(2):101–114.
- Kroeger, A. 1983. Anthropological and socio-medical health care research in developing countries. *Social Science & Medicine*, 17(3):147–161.
- Mackian, S. 2003. A Review of Health Seeking Behaviour: Problems and Prospects. *Health Systems Development. University of Manchester, Manchester, UK*. Updated on: 30 November 2002.
- Mahajan, H. 2012. Assessment of KAP, Risk Factors and Associated Co-Morbidities in Hypertensive Patients. *IOSR Journal of Dental and Medical Sciences*, 1(2):6–14.
- Nasir, M. H. N. M., Hassan, H., Jomhari, N. 2008. The Use of Mobile Phones by Elderly: A Study in Malaysia Perspectives. *Journal of Social Sciences*, 4(2):123–127.
- NSUM 2015. A National Survey on the Use of Medicines (NSUM) by Malaysian Consumers. *Ministry of Health Malaysia. Putrajaya, Malaysia*. Pharmaceutical Services Division.
- Quek, D. 2009. In Intensive workshop on health systems in transition. *The Malaysian healthcare system: a review*, pages 29–30. Kuala Lumpur, Malaysia.
- Rahman, M., McAll, G., Chai, K., Chai, G. 1987. Massage-related perforation of the sigmoid colon in Kelantan. *The Medical Journal of Malaysia*, 42(1):56–57.
- Razali, S. M., Khan, U. A., Hasanah, C. I. 1996. Belief in supernatural causes of mental illness among Malay patients: Impact on treatment. *Acta Psychiatrica Scandinavica*, 94(4):229–233.
- Shaikh, B. T., Haran, D., Hatcher, J., Azam, S. I. 2008. Studying Health-Seeking Behaviours: Collecting Reliable Data, Conducting Comprehensive Analysis. *Journal of biosocial science*, 40(1):53–68.
- Silvanathan, S., Low, B. S. 2015. Current public awareness on the safety of traditional and complementary medicines (T&CM) in Malaysia. *European Journal of Integrative Medicine*, 7(2):184–189.
- Sing, W. S. 2001. Pharmacy practice in Malaysia. *Malaysian Journal of Pharmacy*, 1(1):3–9.
- Tee, G. H., Kaur, G., Ramanathan, P., Amal, N. M., Chinna, K. 2011. Health seeking behavior among Malaysians with acute diarrheal disease. *Southeast Asian Journal of Tropical Medicine and Public Health*, 42(2):424.
- WHO 2013. World Health Organization. WHO traditional medicine strategy . pages 2014–2023. WHO Press: Geneva.