Original Research Article

Tendency of Self-Medication among Various Malaysian Ethnicities

ABSTRACT

Aims: Self-medication has been observed in all kinds of societies regardless of region, religion, ethnicity and socioeconomic status. It is practiced by individuals as part of self-care for preventing or curing diseases. The main objective of this study is to assess the number of individuals involved in usage of over the counter drugs in Malaysia; as well as to assess if certain races in Malaysian population are more inclined towards the use of medication without prescription.

Study design: Cross sectional descriptive study

Methodology: A number of patients selected randomly from the outpatient department of SEGi University hospital, Malaysia participated in the study. Data was collected using a simple questionnaire. A total of 315 patients (166 male and 159 female) participated in the research and completed the designed questionnaire (Figure 1). The data collected was analyzed statistically using SPSS 20.0; appropriate statistical tests (Chi-Square and Fisher exact test) were applied. The *P value* (<0.01) was considered significant.

Results: In total, self-medication was practiced by 16.2% of participants. The trend was slightly higher in males (9.2%) than female participants (6.99%). Regarding ethnicity, the highest tendency was reported by patients of Indian origin. In Malaysian population, herbal medications were the most popular (66.66%), for the purpose of self-medication followed by allopathic drugs (22.22%). Considering the types of allopathic medications, oral analgesics remain the most popular drug (60.56%) for self-medication among patient of all ethnicities.

Conclusion: In conclusion, the trend of self- medication is not very popular in Malaysians but still it has been practiced by individuals occasionally.

Keywords: Herbal medication; Oral analgesics; Self-care

1. INTRODUCTION

Medications are needed to overcome disease process either to cure the active diseases or for the prevention. Medications can be prescribed by the healthcare professionals (medicines on prescription) or individuals may have self-medication. The use of medication by an individual for the treatment of self-diagnosed or un-diagnosed symptoms is termed "self-medication" [1]. Hence, medication is used without consultation from a doctor or health professional [2]. Usually, the individuals purchase medicines over the counter (without prescription). Self-medication has been observed in all kinds of societies regardless of region, religion, ethnicity and socioeconomic status. Self-care is defined as an ability of individuals to take care effectively [3]. It is considered as person's aptitude for the establishment of a healthy life style as well as prevention of diseases. In addition to health, nutrition, lifestyle, socioeconomic and environmental factors; self-medication is also considered as one of the methods of self-care [4, 5].

The era of 1980's observed an increase in the phenomenon of self-medication when the World Health Organization (WHO) approved some drugs to be altered from prescription status to the ones sold without prescription. It was done with an aim to reduce the burden on Health care Professionals and shifting the cost from health authorities to the consumers [6, 7]. Mostly minor illnesses alongside prolonged waiting time in hospitals in addition to reduce cost are one of the many factors responsible for an increase in self- medication [8-10]. For example, the most profound symptom with which the patient presents in dentistry is fear, pain and anxiety [11, 12]. It is often in the knowledge of dentists that patients in pain often take pain killers on their own to treat themselves. They do it with a perception that it will save them from a visit to a dentist. In addition, antibiotics are routinely used in combination with analgesics. It has resulted in development of problems like toxic drug effects, interaction between medicines, increase cost of treatment and resistance of drugs to function optimally on pathogens.

The main beneficiaries of using drugs without prescriptions are the pharmacist. Self-medication has always remained a burning issue amongst health care professionals. Dispensing of drugs without prescription must be stopped by employing all the measures available in term of drug dispensing regulations globally to minimize the harm of self-medication [13]. The main objective of this study is to assess the number of individuals involved in usage of over the counter drugs in Malaysia; as well as to assess if certain races in Malaysian population are more inclined towards the use of medication without prescription. In addition, this study was to ascertain and enlighten different Malaysian ethnicities about the detrimental effect of self-medication.

2. MATERIAL AND METHODS

The current research is a quantitative and preliminary study that was conducted on patients visiting the out-patient department at SEGi Oral Health Centre, Malaysia. In order to collect the patient's data, a simple questionnaire was used [14]. The questionnaire was comprised of two major sections: Section 1: sought information on the socio demographic data of respondents such as age, gender, marital status, level of education, socio-economic status and place of residence. The section 2 was pertinent to information on health seeking behavior and self-medication practice by respondents including the types of medications, duration, frequency and the recommendation source of self-treatment. The purpose of research and its potential outcome was explained in detailed to each respondent and an informed consent was obtained for participating in the research. Questions related to reasons leading to self-medication alongside their side effects if any were also asked from respondents.

A total of 340 patients were randomly selected from the out-patient department at SEGi Oral Health Centre, Malaysia. Twenty five patients refused to sign the consent and participate in the research. A total of 315 patients (166 male and 159 female) participated in the research and completed the designed questionnaire (Figure 1). The data collected was analyzed statistically using SPSS 20.0; appropriate statistical tests (Chi-Square and Fisher exact test) were applied. The *P value* (<0.01) was considered significant.

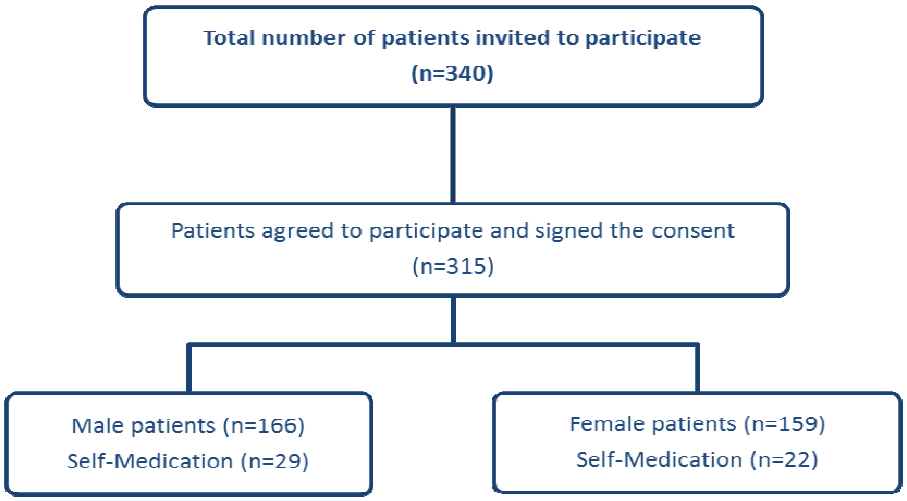

Fig. 1. Number of patients participants in the research and self-medication users

3. RESULTS AND DISCUSSION

The patients of various age groups were included randomly in the study. The majority of patients (n=189) fall in the age group 20-29 Years, followed by patients age group 15-19 years. As the main focus of this study remain to assess the tendency of self-medication among different Malaysian ethnicities. In general, 16.2% of participants reported the use of self-medication. The trend was slightly higher in males (9.2%) than female participants (6.99%). Among the self-medication users, the highest tendency (50%) was reported by patients of Indian origin (Figure 2). The self-medication in patients of Malay origin (11.11%), Chinese (15.79%) and other ethnicities (15.38%) was significantly lower than Indian patients (*P <0.01*). Considering the education level of the participants, the students reported significantly higher tendency (~20%) of self-medication compared to the working community (~7%). The graduate student had the highest tendency (21.43%) of self-medication among the students of various academic levels (Figure 3). It was followed by secondary school students (16.66%) and 7.14% of post-secondary students (*P <0.01*).

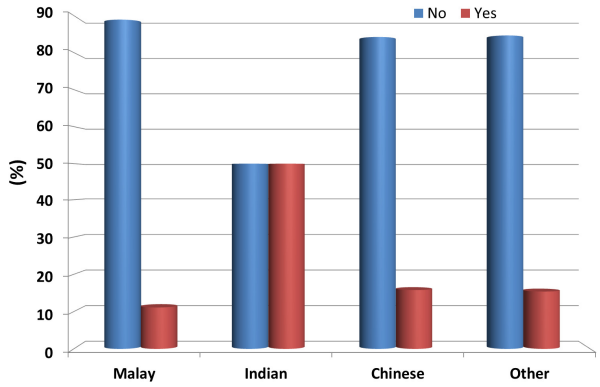

Fig. 2. Tendency of using self-medication among various Malaysian ethnicities

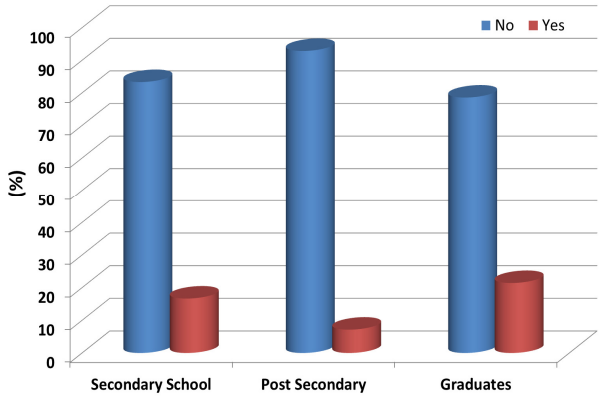

Fig. 3. Tendency of self-medication in relation to education level

In terms of type of medications used; a very clear trend was observed in the Malaysian population (Figure 4). There was the highest tendency for using the herbal medications (66.66%), followed by allopathic drugs (22.22%) and homeopathic medicines (11.11%). Considering the types of allopathic medications, oral analgesics remain the most popular drug (60.56%) for self-medication among patient of all ethnicities followed by other types of oral medications (27.24%). Only 12.11% patients reported use of topical medicines for self-medication. Answering the question, "what is frequency of using the self-medication", 67.13% answered rarely (Figure 5), 23.78% on monthly basis and only 9.09% reported using self-medication on daily basis.

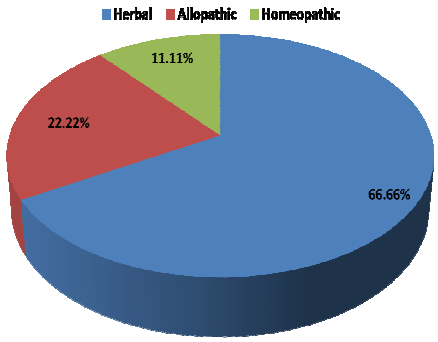

Fig. 4. Types of medicines and their tendency for being used as self-medication agent

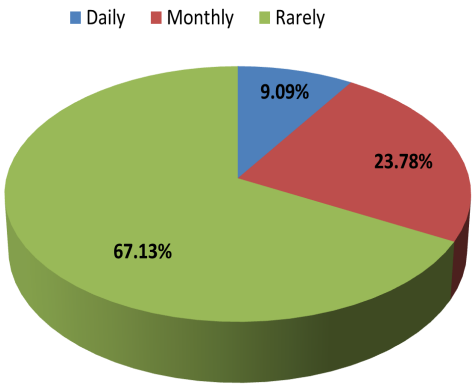

Fig. 5. Frequency of using self-medication as reported by various patients

A significantly lower tendency towards self-medication was observed among individuals who participated in this study. In terms of gender, males were found to be more inclined towards self-medication than the female counterparts. The most common reason attributed to this behavior by males was lack of timing. General lack of motivation to get themselves checked by health care personals also contributed to the habit of self-medication. In contrast, females were reported to be more inclined to self-medication; 47% of Mexican women [15], and 61.9% of females in Nigeria [16]. In developing countries socio-economic factor is the chief reason for self-medication. Due to high poverty in African regions, females restore to the use of drugs without prescription as it saves them from paying physician/dentist consultation fees.

Middle aged individuals were also found to be more inclined to self-medication in comparison to teenagers. It is primarily attributed to lack of time on part of middle aged people. A significant influence of ethnicity among Malaysian population was found towards self-medication. People belonging to Indian race were mostly found to involve themselves in self-medication. It was followed by individuals belonging to Malay and Chinese races. It can be attributed to the fact that Indian populations have greater believes in alternative medicine. Herbal medicines are more commonly used self-medications among Malaysian populations. The use of herbal medicine among Chinese stems from the source that most of the Chinese population has been self-medicating themselves with herbal drugs for over generations on the recommendation of their ancestors. A referral from a friend or family member for using some articular herbal medicine is also very common among races of subcontinent.

The academic qualification of the patient reflects that 21.43% of graduates were using self-medication that is significantly lower than reported tendency of self-medication in other countries for example Egypt (52.5%), India (26%) and in Sir Lanka (83.3%). A general belief among graduate patients was that medicines are an effective tool for alleviating dental pain hence there is no need to visit a dentist [17]. The drug most commonly used for self-medication by respondents was oral analgesics. It is used either alone or concomitantly with antibiotics. Health benefits of fluoride are well known for oral health [18-20]. Fluoride containing products (tooth pastes, mouthwashes, salts) are available over the counter and have a potential to attract public for self-medication. The combination of drugs is used with a notion that pain will alleviate at a faster pace as compared to using a single drug. Afolabi et al. conducted a similar study in Nigeria and they also found out similar inclination of patients towards usage of oral analgesics (55.1%) alone whereas 27.3% were using antibiotics concomitantly with oral analgesics [21]. The antibacterial agents are commonly used in dentistry [22]. However, the misuse of antibiotics and their unwanted effects are very well known. Antibiotics are used commonly without the consultation of health care professionals [23]. For example, it has been reported in a previous study [23] that 28% patients misuse antibiotic for alleviating the pain while 51% use antibiotics on the advice of their friends. It is also pertinent to note that a signification ratio of Malaysian population was practicing self-medication on a rare basis and not using them regularly. The daily user of self-medication are as low as 9% reflecting that majority of patients are not depending on self-medications for proper continuous treatment and attend physicians on regular basis.

4. CONCLUSION

The issue of self-medication has not attracted much attention from the authorities concerned. It is important to note that although the trend of self- medication is not very

popular in Malaysia but still it has been practiced by individuals occasionally. The reasons cited could range from lack of time to financial constraints or familial pressures. Regulatory authorities and health care professionals must highlight the drawbacks of self-medication. All possible means of transfer of message must be used be it electronic or print media. In era of today social media can act as a valuable tool to disseminate information about the harmful effects of self-medication. Stringent rules must be put in place by authorities to reduce over the counter sale of drugs. More public awareness programs should be organized at all levels in general and schools in particular to highlight about the hazardous effects of practicing self-medication. It is suggested that medical stores must be managed by a qualified pharmacist who can advise the patients about the safety of the drug they are buying and forewarn them too about its hazardous effects.

CONSENT

All authors declare that 'written informed consent was obtained from all participants.

ETHICAL APPROVAL

All authors hereby declare that all experiments have been examined and approved by the appropriate ethics committee and have therefore been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki.

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DEFINITIONS, ACRONYMS, ABBREVIATIONS

Herbal Medicine: A plant (or part) used for therapeutic benefits.

APPENDIX