

Original Article

HEALTH SEEKING BEHAVIOR TOWARDS MINOR AILMENTS AMONG UNIVERSITY STUDENTS IN MALAYSIA

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Received: 31 Aug 2020, Revised and Accepted: 18 Dec 2020

ABSTRACT

Objective: This study was conducted to identify the types of minor ailments encountered by university students in Malaysia and the action taken in response to these ailments.

Methods: A cross-sectional study was conducted on undergraduate students from the various faculties in a major private and a public university in Malaysia. A researcher stationed at different areas of the universities to recruit respondents. If the student agreed to participate, he/she would sign a consent form and then self-filled a structured questionnaire.

Results: Of the 856 respondents included in this study, 68.6% were female and 60.6% rated their health status as 'good' or 'very good'. During the one month period prior to the study, 87.4% of the respondents encountered at least one minor ailment. The five most common minor ailments encountered were headache (58.1%), common cold (42.8%), sore throat (42.6%), cough (40.3%) and back pain (27.6%). The main actions taken were rest at home and self-medication. The most common drug used for the treatment of minor ailments was paracetamol (49% of the respondents). Other drugs were used by less than 10% of the respondents. The main source of information was from parents (63.7%), followed by doctors (59.9%), internet (57.9%), pharmacists (33.9%) and friends (33.5%).

Conclusion: Headache is more common among university students compared to the general population. Further studies are required to understand the cause of headache among this population.

Keywords: Health behavior, Medication, Minor ailment, Self-medication, Undergraduates

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DOI: <https://dx.doi.org/10.22159/ijpps.2021v13i2.39596>. Journal homepage: <https://innovareacademics.in/journals/index.php/ijpps>.

INTRODUCTION

Minor ailments are defined as acute health conditions, which require only minimal medical attention and simple medication(s) to treat the symptoms [1]. In addition, they are often self-limiting; that is, they will resolve by itself over a short period, even without any treatment. The most common minor ailments reported were cough, fever, sore throat and upper respiratory tract infections [1, 2].

University students may encounter minor ailments frequently due to unhealthy lifestyles, poor eating habits and stress [3, 4]. Studies in various countries found that headache, flu and fever were the most commonly encountered minor ailments by university students [5-7]. Subsequent action taken by individuals to relieve the unpleasant symptoms of minor ailments included seek medical advice from a doctor or a pharmacist, use home remedies or medications available at home, rest or do nothing about the symptoms. It was found that self-medication had been widely practiced among both medical and non-medical students but more prevalent among medical students [6, 8]. University students utilized a range of health information from the Internet, which allowed them to self-diagnose and self-medicate [9]. They might also consult their parents or friends, treat the minor ailment according to previous experiences, or ignore the ailment as it would resolve by itself [10-12].

Thus far, most of the studies on minor ailments and health-seeking behavior among university students were conducted in developing and under-developed countries, but such studies are still scarce in Malaysia. However, such studies will provide information for health care providers to educate and help this population group to better cope with their minor ailments and hence, minimize its impact on their academic performance and quality of life. Therefore, the present study aimed to identify the types of minor ailment encountered by university students in Malaysia and the action taken to treat these ailments.

MATERIALS AND METHODS

A cross-sectional study was conducted on university students from various faculties in a major private (University A) and a public

university (University B) in Malaysia. This study has been approved by the Medical Ethics Committee of University Malaya Medical Centre (Ref. No. MECID NO.: 201511-1829) and the Human Ethics Committee of Taylor's University (Ref. No. HEC 2017/022).

Any undergraduate students who were registered in the two universities at the time of the study and were able to read and understand English, were requested to participate in the study. Pre-university students (such as those in Foundation and Diploma courses) and postgraduate students (Master or Doctor of Philosophy candidates) were excluded.

Medical-related students were those from the faculties related to health and medical sciences; while non-medical related included students from other faculties in the two universities, such as Arts and Social Sciences.

Both University A and B have more than 10,000 undergraduate students. The sample size required was calculated using Raosoft sample size calculator (<http://www.raosoft.com/samplesize.html>). With 95% confidence level, 5% margin of errors and assuming that 50% of the students had a minor ailment during the past one month, the sample size required was at least 373 students from each university.

A self-filled questionnaire was developed based on the literature and used to collect data in this study. It consisted of 21 items in four parts: (1) social-demographic characteristics of the respondent, (2) health status and medical history, (3) a list of minor ailments and options on health-seeking behavior, and (4) the management of minor ailments, which included the use of medications and sources of health information.

A pilot study was conducted on 25 and 20 undergraduate students from University A and B, respectively, to obtain feedback on the clarity of the questionnaire and to test the feasibility and practicability of the study procedure. Minor changes were done on

the questionnaire based on comments of the respondents and the results of the pilot study.

The number of respondents recruited from each faculty was proportional to the number of students in the faculty in relation to the total student population in each of the university. A researcher stationed herself at different common areas of the universities such as the Student Centre, library, cafeteria, entrance to the faculties or schools, outside computer rooms and lecture theatres, to recruit the students. The researcher approached any student based on convenience sampling and requested the student to participate in the study. The researcher explained the study objectives and procedure to the student. If the student agreed to participate, he/she would sign an informed consent form. After that, the student was given the structured questionnaire to self-fill and an information sheet about the study for his/her own reference. On completion of

the questionnaire, the student returned it to the researcher, who checked it to ensure that the questionnaire has been answered fully.

All data collected were entered and analyzed using the Statistical Package for the Social Science (SPSS) software for windows, version 21.0 (Armonk, NY: IBM Corp.). Descriptive statistics such as frequencies and percentages were generated for all variables.

RESULTS

A total of 856 respondents were included in this study. The demographic data of these respondents are as shown in table 1. Seventy-four respondents (8.6%) reported that they have immediate family members who worked as health care professionals. Sixty-five respondents (7.6%) had chronic illnesses and the most commonly reported chronic illnesses were asthma (n=26), and eczema (n=18).

Table 1: Characteristics of the respondents

Characteristics	University A (n=400; %)	University B (n=456; %)	Total (N=856; %)
Age ^a (years)			
Mean (SD)	20.79 (1.5)	21.7 (1.3)	21.3 (1.5)
Range	18-28	18-25	18-28
Gender			
Male	130 (32.5)	139 (30.5)	269 (31.4)
Female	270 (67.5)	317 (69.5)	587 (68.6)
Ethnic group			
Malay	53 (13.3)	266 (58.3)	319 (37.3)
Chinese	263 (65.8)	131 (28.7)	394 (46.0)
Indian	35 (8.8)	37 (8.1)	72 (8.4)
Others ^b	46 (11.5)	22 (4.8)	68 (7.9)
Faculty			
Arts and Social Sciences	47 (11.8)	88 (19.3)	135 (15.7)
Business and Law	109 (27.3)	80 (17.5)	189 (22.1)
Built Environment, Engineering, Technology and Design	125 (31.3)	101 (22.1)	226 (26.4)
Health and Medical Sciences	88 (22.0)	187 (41.0)	275 (32.1)
Hospitality, Food and Leisure Management	31 (7.8)	-	31 (3.6)
Current year of study			
Year 1	91 (22.8)	136 (29.8)	227 (26.5)
Year 2	133 (33.3)	104 (22.8)	237 (27.7)
Year 3	135 (33.8)	134 (29.4)	269 (31.4)
Year 4 and above	41 (10.25)	82 (17.9)	123 (14.4)
Current health status			
Good	229 (57.3)	290 (63.6)	519 (60.6)
Satisfactory	150 (37.5)	149 (32.7)	299 (34.9)
Poor	21 (5.3)	17 (3.7)	38 (4.4)

Note: ^aData were reported as mean (standard deviation, SD), median (interquartile range, IQR) and range. Others included Sinhalese, African, Indonesian, French, Sino, Korean, Pakistani, Kadazan, Kadasandusun, Japanese, Sri Lankan, Punjabi, Seychelloise, Iraqi, Marelius, Maldives, Sikh, Romanian, Burmese, Nepalese, Eurasian, Siamese, Arabian, Kazakhstan, Iban, Bidayuh, and Bugis

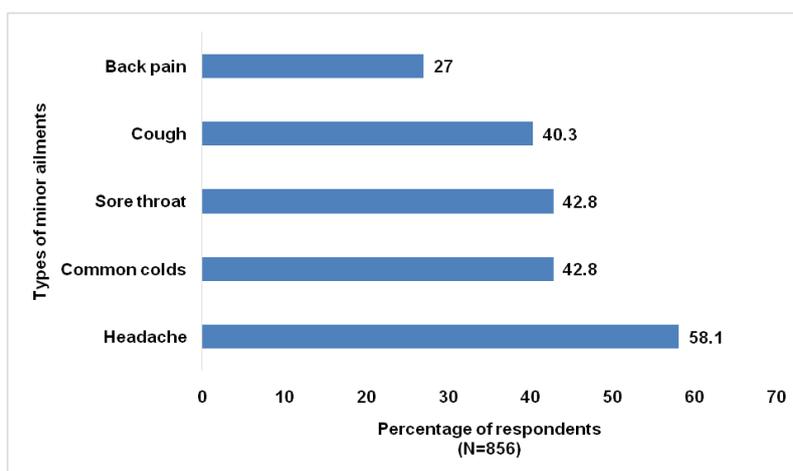


Fig. 1: Five most common minor ailments encountered in the past one month

NOTE: The total percentage added up to more than 100% as one respondent could have more than one minor ailment in the past one month

Health seeking behavior is referred to as the subsequent action taken by the individuals to relieve the symptoms associated with minor ailments. The respondents took various actions when they encountered different types of minor ailments. The action taken was classified into four main categories; (1) consulted a doctor, (2) self-medication (when a

respondent sought advice from a pharmacist, bought medication from a pharmacy or a non-pharmacy shop or used someone else's medication or used traditional medicines), (3) tried home remedies, and (4) ignored the symptoms (including "just rest"). Table 2 shows the action taken in response to the five most common minor ailments.

Table 2: Action taken in response to minor ailments

Action taken	Minor ailments frequency (N=856;%)				
	Headache (n=497)	Common cold (n=366)	Sore throat (n=366)	Cough (n=345)	Back pain (n=231)
See a doctor	18 (3.6)	34 (9.3)	46 (12.6)	38 (11.0)	11 (4.8)
Self-medication	148 (29.8)	131 (35.8)	121 (33.1)	121 (35.1)	29 (12.6)
Try home remedies	13 (2.6)	18 (4.9)	45 (12.3)	24 (6.9)	10 (4.3)
Ignore the symptoms	318 (64.0)	183 (50.0)	154 (42.1)	162 (47.0)	181 (78.4)

In addition, one respondent had a cough and another with sore throat claimed that they quit smoking to alleviate the symptoms. For headache, one of the respondents had head massage to relieve the pain. Six respondents who had back pain reported taking various actions such as the use of hot packs/patches (by three respondents), seek help from a chiropractor, practiced yoga or had a massage (by one respondent each).

For female respondents with period pain, four respondents put hot pack on their abdominal area and another two respondents drank warm water. Three respondents with constipation tried to alleviate the problem by drinking a lot of water, while another three ate more vegetables to ease bowel movement.

Out of 759 medications taken by the respondents, only the name of 396 medications (52.2%) was given. The most common drug found in the medications used for treating minor ailments was paracetamol (196, 49%), followed by amylmetacresol and dichlorobenzyl alcohol (36, 9.1%) which were contents of Strepsils® lozenges.

The five main sources of health information used by the respondents are as shown in fig. 2. Besides these, some respondents referred to books (100, 11.7%) for the treatment of minor ailments. Two respondents each reported that they treated themselves according to previous experience or obtained information from television. However, 35 respondents (4.1%) did not seek any health-related information regarding the symptoms and treatment of the minor ailments they encountered.

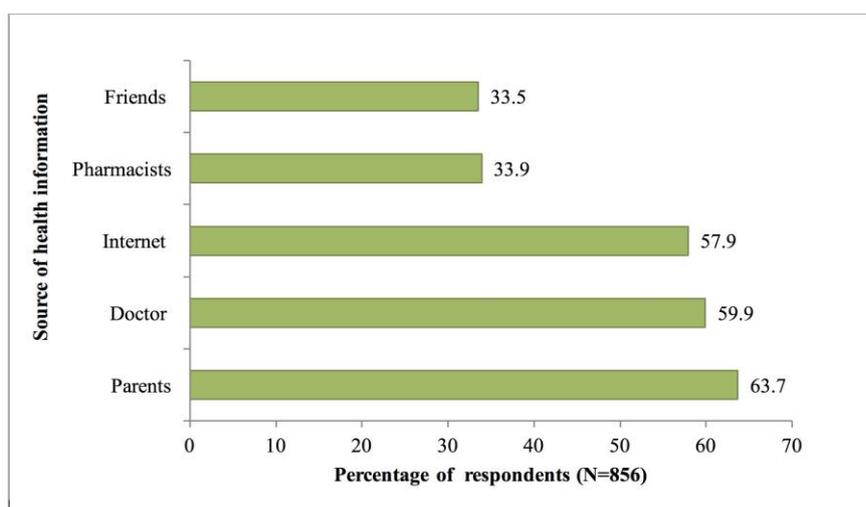


Fig. 2: Sources of health information for treatment of minor ailments

NOTE: The total percentage exceeded 100% because one respondent could obtain health information from more than one source of the 448 respondents (52.3%) who visited a pharmacy for their minor ailments, 34.1% (292 respondents) requested a particular medication; 33.9% (n=290) asked advice from the pharmacist; and 22.2% (n=190) self-selected a specific medication. The total number of requests added up to more than 448 because some of the respondents had more than one type of request at the pharmacy

DISCUSSION

The mean (SD) age of the respondents was 21 (1.5) years and ranged from 18 to 28 y, with 68.6% being female. These are as expected since the target population are undergraduate students who are usually around 20 y old. In recent years, the population of women attending tertiary education has increased and most universities have more female than male students [13]. More than half of the respondents (60.6%) rated their health status as 'good' or 'very good'. This is as expected since the respondents were mainly young adults and generally healthy.

The present study found that the most common minor ailments encountered by university students during a one-month period was a headache, followed by common cold and sore throat. These findings

are similar to that of studies in Pakistan and Nepal which also reported headache (69 to 73%) and common cold/flu (56 to 66%) as the most common minor ailments encountered by university students [6, 7]. In addition, studies from Egypt and Mekelle indicated that headache (50 to 60%) and common cold (44 to 70%) were the most frequent reason for self-medication among university students [8, 14, 15].

Back pain is seldom reported as a common minor ailment among university students. This is probably because young adults are less likely to have severe back pain and hence, they are less concerned. In the present study, the prevalence of back pain was 27.0%. Some studies which focused on low back pain among undergraduate students found that more than 40% of the students with back pain could be associated with psychological conditions of the students

such as extreme fatigue and depression or the consumption of too much coffee, wrong body posture, place of study and carrying of heavy backpacks [16, 17]. The authors also indicate that students who are smokers do not do physical exercise and are obese will be more likely to suffer from low back pain.

The present study showed that the main actions taken in response to the five common types of minor ailment were to ignore the symptoms and just rest, followed by self-medication. Peppa *et al.* [18] found that people would only seek medical care for severe symptoms and chronic illnesses. Therefore, most of the respondents chose to rest at home when they had minor ailments probably because these ailments are often self-limiting and would resolve by itself even without any treatment.

The prevalence of self-medication in the present study (35.8% for common cold, 35.1% for cough, 33.1% for sore throat, 29.8% for headache and 12.6% for back pain) is relatively low compared to studies in Oman, Pakistan and Egypt (94%, 76%, 62.9%, respectively) [5, 7, 8]. This could be due to cultural differences between the study population in Malaysia and other countries. The prevalence of self-medication among the general population in Malaysia is higher, 46% [19]. It has been reported that the younger population tended to care less about their own health conditions compared to elderly people. Previous study reported that younger age groups (18-30 y old) had poor attitude towards medicine use and knowledge of adverse reactions [20].

Paracetamol can be used for pain relief (as an analgesic) and as an antipyretic agent (to relieve fever) for the treatment of minor ailments. Fever is one of the symptoms associated with other minor ailments encountered by the respondents. Therefore, the usage of paracetamol was very predominant among university students due to its wide range of indications such as headache, sore throat, back pain, period pain and fever. Similarly, analgesics were reported as the most common medications used for self-medication in Oman, Nepal and India [5, 6, 21]. Besides these, other studies also reported high usage of analgesics (48 to 82%) among university students and paracetamol was the most common drug used [11, 22]. However, the main concern on the high usage of paracetamol is the safety issue and hence, university students should be counseled and cautioned on the maximum daily dose of 4g and that overdose of paracetamol can lead to hepatotoxicity.

The respondents in the present study preferred to seek their parents' advice on minor ailments. This result is similar to that of other studies conducted in Nepal, Lebanon and Iran [22-24]. University students are usually young adults who are still under their parents' wings and hence, dependent on their parents for advice. Doctors were the second most common source of information on minor ailments. This indicates that university students have confidence in doctors to provide advice on minor ailments. However, studies conducted in other countries showed that pharmacists were the most preferred source of information [6, 8]. This may be attributed to pharmacy being a relatively newer health care profession in Malaysia compared to the medical profession.

More than a third of the respondents (33.9%) in the present study consulted a pharmacist on their minor ailments. According to a previous study conducted on the general population in Malaysia, only 27.2% of the respondents would see a pharmacist for the treatment of minor ailments [19]. This indicates that university students are more aware about the roles of pharmacists in health care than the general population in Malaysia. Similarly, Coelho and Costa [25] found that younger patients in Portugal would seek the pharmacists' advice about their minor health problems. Pharmacists could also recommend the most appropriate medication for their patients based on the symptoms presented and provide counseling on a healthy lifestyle [26-28]. Less than a quarter of the respondents (22.2%) in the present study had self-selected a specific medication in the pharmacy to treat their minor ailments. This indicates that a majority of the respondents are aware of the risk of taking medications on their own and preferred to seek the advice of a health care professional.

More than half of the respondents would search for health information via the internet. Similarly, studies in Malaysia and Oman

had reported high usage of internet for searching health information (85.7% and 89%, respectively) [29, 30]. This may be attributed to the convenience of retrieving information from the internet as current university students are a new breed of millennials who are digital natives and have been trained to use electronic devices since young age [30, 31]. However, the concern is the ability of university students to identify reliable sources of information and to interpret them correctly to overcome their health conditions [9].

LIMITATIONS OF THE STUDY

There are several limitations in this study. The questionnaire used was for self-reporting on the types of minor ailments encountered and action taken. Under-reporting or inaccuracy due to recall bias of the respondents could not be ruled out. Besides, half of the respondents could not remember or did not know the name of the medications they took for treating their minor ailments. Therefore, the types of medications used may be biased towards common medications that the respondents could remember easily. The results of the present study may not be generalized to all university students in Malaysia as only two universities were involved, although these two universities are major universities in Malaysia.

CONCLUSION

This study documented the common minor ailments encountered by university students, which were headache, common cold, cough, sore throat and back pain. Students usually took a rest at home or did nothing about their minor ailments instead of seeking treatment. However, the most common drug used was paracetamol and the most common source of health care information was from family members instead of health care providers. This calls for health care education on university students to ensure the appropriate management of minor ailments and the safe use of over-the-counter medications. Further studies are required to understand the cause of headache among this population group.

ACKNOWLEDGEMENT

We would like to express our appreciation to Ms Shazwani Binti Mohd Pakarudin for collecting the data in one of the universities. We are grateful to all the respondents of the present study for making this study possible.

FUNDING

Nil

AUTHORS CONTRIBUTIONS

Both authors contributed equally to the design of the study, analysis and interpretation of results, as well as drafting and editing of the manuscript. In addition, LYT collected part of the data for this study and prepared the first draft.

CONFLICT OF INTERESTS

Both authors declare that they have no conflict of interest.

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