

Assessment of Self-Medication and Health Pursuing Behaviour among General Public in Narasaraopet, Andhra Pradesh

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Abstract

In present days Patients' behavior in making decisions regarding health is currently changing from passive recipients to recipients who play an active role in taking action to control their health and taking self-care initiatives. This study was conducted to evaluate the people's health seeking behavior among general public and its associated factors and to evaluate the medicine taking behavior in public and the practice of self-medication. A cross-sectional study was undertaken among general public in, Andhra Pradesh, India. A convenience sampling of 300 participants successfully completed the survey. Self-administered questionnaires were distributed among the residents in the Narasaraopet. This study showed that most of the participants choose to consult the physician when they experience any health problems (47.6%), followed by self-medication (18.4%). The first action for consulting the physician was significantly predicted by respondents and prevalence of self-medication was 61%. The practice of self medication was significantly associated with educated people, people with alone living status and people with more self-care orientation. From our study we concluded that, increasing the awareness of the public about the rational choice of getting medical assistance is a very important issue to control their health. A health education program is needed to increase the awareness about the use of medicines among the general public and to enable them to make the right decisions relating to health problems.

Keywords: Self medication; Health Knowledge; Surveys; Questionnaires; Practice; Physicians and Pharmacists;

Introduction

In present days Self-medication involves the stopping or continuing of using medicines prescribed by a physician for chronic or recurring diseases or symptoms. Currently, self-medication is a common practice among many people and plays a major role in selfcare [1]. Health seeking behaviour can be affected by self individual, diseases, and the availability and accessibility of health services [2]. Access to healthcare professionals and complying with their treatment plan can reduce the morbidity and thereby mortality [3].

World's population today is facing problems when consuming and accessing medicines [4]. Generally shortage of medicines is a

widespread problem in both developing and developed countries which can affect the accessibility to medicines. Data from 25 European countries reported that 63% of hospital pharmacists identified medicines shortages to be occurred weekly and sometimes daily [5].

Physicians are usually sharing their health decisions with their patients in terms of the availability of medicines and its accessibility. Accordingly, patients are being more involved in taking actions either with or without direct healthcare professional guidance, seeking for other facilities to obtain medicines or tend to self-care [6]. Effective self-care is a complex process including diagnostic decision-making of disease and its causes, choosing the effective medicine and ensuring the effectiveness of treatment [7].

The behavioral model of using health services was defined by Andersen and Davidson as a multilevel model that includes individual and contextual determinants of using health services [8]. Both determinants have been divided to predisposed factors, enabling factors and need factors for individual use of health services [9]. To understand the individual determinants, three major factors have been described as predisposing factors which includes the demographic characteristics of age and gender as "biological Original imperatives", social factors including education, occupation, ethnicity and family status, and mental factors including individual's attitudes, values and knowledge of health and health services. Secondly, the enabling factors include individual's economic status which involves the monthly income and wealth to pay for health services and the effectiveness of the healthcare cost which is influenced by the individual's health insurance status and cost sharing requirements.

In addition to the organization factors which are determined by the individual's regular source of care and nature of that source, the need factors include perceived need for health services such as individual's view and experience of their own general health status and symptoms of illness. The evaluated need includes professional evaluation and objective measurements of the individual's health condition and need for healthcare. In previous

studies, reported that 66% of respondents visited multiple facilities on the same day and for the same health problems, while 51% failed to comply with appointments of follow ups to the same facility [10]. It is advised to consult the healthcare professionals once the patients face any health problems. Another study in Scotland showed that most respondents would choose to see a physician rather than a pharmacist prescriber and some felt that their consultation with the pharmacist could have been better [11]. In India; people mostly obtain their medicines from clinics (80.1%), hospitals (78%) and community pharmacies (62.2%). Most people can easily get access to non-prescription medicines for short term usage and for minor illnesses and only consider physicians' consultation for major health problems [12].

However, physicians and pharmacists are consulted when in doubt or in cases where more information are required. Access to essential medicines is a human right and targeted goal for a sustainable health development. Therefore, understanding people's decisions in obtaining medicines can be helpful to expect the medicines taking behaviour among them and to determine the lack of healthcare facilities. This study aimed to evaluate the first action for seeking medical assistance among general public and; to evaluate the factors affecting their health seeking behaviour as well as to describe medicine taking behaviour and the prevalence of self-medication.

Methods

Research design

A cross-sectional study was carried out to evaluate the first action of access to medicines and medicine taking behaviour among the general public. This study was conducted from January to February 2015 in Narasaraopet. Study approval was obtained from the "Ethics Committee of the MAM College of pharmacy".

Study population

General populations in both genders were eligible for participating in this study. The distribution of age group is 26.7% for 18-24 years, 63.4% for 25-54 years, and 6.4% for 55-64 years.

Sampling and sample size

Convenience sampling method was used to recruit the required sample from the household level. The method aims to obtain information from participants who are easily accessible to the researcher. For the purpose of the study, 300 subjects were invited to participate in this survey.

Data collection tool

The questionnaire was used to obtain the data from the participants. The questions were developed based on the previous literature. The questionnaire consisted of three parts mainly to evaluate the health seeking behaviour and medicines taking behaviour among the general public. The first part

obtained the demographic data of the participants, including age, gender, ethnicity, education level, monthly income and the presence of chronic diseases. The second part evaluated the health seeking behaviour by asking them "If you are experiencing any health problems, what is the FIRST action that you will take?" and the third part evaluated the medicines taking behaviour and the practice of self-medication.

Data collection method

A self-administered questionnaire was used to obtain the data from all participants in this survey. The researchers explained the aim of the study prior to data collection and signed consent form was obtained from all participants before involving them in the survey. Household area was targeted in this survey. The majority of the participants responded at the same time of distributing the questionnaires, while some of them responded later and handed the questionnaires back to the researchers in the following days. The questionnaire was completed within approximately 10-15 minutes. The respondents were given sufficient time to complete the questionnaires before they were collected.

Data and statistical analysis

Descriptive statistics including frequencies and percentages were used for data analysis. Chi square test was computed to find the associations between medicine seeking behaviour and the social-demographic data of the respondents. In addition, logistic regression was used to predict the factors which highly contributed to medicine seeking behaviour.

Results

300 questionnaires were completed; Table 1 presents the socio-demographic data of the participants. Around 26.7% and 36.7% of the participants were from the age groups of 18-24 and 25-34 respectively. Most participants (56.6%) were females, whereas 43.4% of them were males. According to the education level of the participants was distributed from college or university (20.0%), secondary school (23.4%), primary school (30.0%) and no formal education (26.6%). Regarding the presence of chronic diseases, 30.0% of the respondents were suffering from chronic diseases such as hypertension, diabetes and peptic ulcer.

From Table 2, the majority of the respondents (47.6%) will consult the physician once they are experiencing any health problems. However, 18.4% of the respondents stated that they practice self-medication as the first action to be taken if they face any health problems. Only 25% of them will consult a pharmacist at pharmacy outlets to treat their health problems.

From Table 3, the majority of the participants (61.0%) reported that they took medicines based on their physician's advice, while 41.0% of them depended on their past experience with the same illness and 30% of them based on advice from family members, friends and media.

Table 1: Socio-demographic information of the participants

Age group	
Variable	N (%)
18-24	80 (26.7)
25-34	110 (36.7)
35-44	45 (15.0)
45-54	35 (11.7)
55-64	20 (6.7)
>64	10 (3.4)
Gender	
Variable	N (%)
Male	130 (43.4)
Female	170 (56.6)
Educational level	
Variable	N (%)
No formal education	80 (26.6)
Primary school	90 (30)
Secondary school	70 (23.4)
College/University	60 (20)
Occupation	
Variable	N (%)
Government	30 (10)
Private/Self employed	130 (43.3)
Retired	15 (5)
Student	60 (20)
Unemployed	65 (21.7)
Living Status	
Variable	N (%)
Alone	50 (16.7)
With family	240 (80)
With non-family	10 (3.3)
Chronic disease	
Variable	N (%)
Yes	90 (30)
No	210 (70)

Table 2: First action that will be taken by the participants when getting any health problems

If you are experiencing any health problems, what is the FIRST action that you will take?	N	%
Consult a physician	143	47.6
Consult a pharmacist at pharmacy outlet	75	25
Consult a traditional practitioner	27	9
Self-medication	55	18.4

Table 3: Medicine taking behaviour among the respondent

In the past three months, how did you take your medicines to treat your health problems?		
Based on physician's advice	N	%
YES	183	61.0
NO	117	39.0
Based on past experience with similar illnesses	N	%
YES	123	41.0
NO	177	59.0
Based on advice from relatives, friends and media	N	%
YES	90	30.0
NO	210	70.0

From Table 4, more than half of the participants (61.0%) reported using self-medication to treat their health problems. In addition, around 32.1% of them were more frequent to practice self-medication while 48.6% of the participants used self-medication at least once in the past three months.

Table 4: The prevalence of self-medication

Did you practice self-medication to treat your health problems?	N	%
YES	183	61.0
NO	117	39.0
How many times have you self-medicated in the past 3 months?	N	%
Once	146	48.6
Twice	55	18.4
Thrice	26	8.7
More than 3 times	15	5.0
None	58	19.3

From Table 5, the self-medication practice was associated with ethnicity, education level, living status and self-care orientation. Most of the respondents were significantly associated with the self-medication practice. No formal education, Educated people and people with alone living status were more likely to practice self-medication.

Discussion

In the present study, most people prefer to consult a physician when facing any health problems and smaller number of them will consult a pharmacist. At the same time, the self-medication as the first action was also significant. According to the survey of medicines used in India, around most of people will consult the government physicians and private physicians for any health problems while only few of peoples will practice self medication. This could be due to the growth of healthcare profession in India, the easy access to medicines and time saving is the most common

Table 5: The association between self-medication practice and demographic information

Variable		Practiced self-medication	
		Yes (%)	No (%)
Age group	18-24	45(56.2)	35(43.8)
	25-34	60(54.5)	50(45.5)
	35-44	25(55.5)	20(44.5)
	45-54	19(54.2)	16(55.8)
	55-64	9(45)	11(55)
	>64	6(60)	4(40)
Gender	Male	76(58.4)	54(41.6)
	Female	95(55.8)	75(54.2)
Educational level	No formal education	48(60.0)	32(40)
	Primary school	46(51.2)	44(48.8)
	Secondary school	37(52.8)	33(47.2)
	College/University	28(46.7)	32(53.3)
Occupation	Government	16(53.3)	14(46.7)
	Private/Self employed	70(53.8)	60(46.2)
	Retired	8(53.3)	7(46.7)
	Student	28(46.7)	32(53.3)
	Unemployed	35(53.8)	30(46.2)
Living Status	Alone	27(54.0)	23(46.0)
	With family	130(54.1)	110(45.9)
	With non-family	6(60)	4(40)
Chronic disease	Yes	60(66.7)	30(33.3)
	No	130(61.9)	80(38.1)

reasons for increasing the practice of self-medication among many people. In addition, the lack of access to healthcare services and common medication stock-outs in developing countries can affect people’s decisions towards health seeking behaviour. Moreover, this study showed that the first action for consulting a physician or a pharmacist was not affected by age group. In contrast to previous studies, access to the healthcare service to obtain prescribed medicines is common in elderly people (65 years and above) due to the high morbidity rate among them.

Whereas, young people tend to take care of themselves without any medical visits by obtaining non prescriptive medicines. However, obtaining prescribed medicines was not related to age but it was influenced by people’s perception of health status. In addition, seeking for a physician was found to be influenced by perceived the severity of illness among people. On the other hand, this study showed that consulting the physician and the pharmacist were not influenced by the education level and the monthly income of the respondents. However, indicating self-medication as a first action was significantly predicted in people with higher monthly income. Previous researches demonstrated that people with low education level and low monthly income were more likely to use general healthcare services whereas consulting private healthcare services was associated with those from higher income groups. These findings could be due to the

robust healthcare system which provides healthcare services for the public, including physician’s consultation, medications and necessary investigation with a minimum charge for anyone. According to ethnic groups, participants were more likely to use self-medication as a first action. This may explain what have been found in a previous study which found that the uneducation persons spend more money in obtaining medicines from private pharmacies as compared to other ethnic groups. However, different cultural beliefs about illnesses may lead the Indians to be more involved in self-care initiatives. Never the less, the difference in choices for medicines taking behaviour can be affected by patients’ attitude towards prescription medicines. The availability of non-prescription medicines may encourage consultation with pharmacists and even self-medication.

In addition, retired people have more tendencies to consult a physician for any health problems. This is probably due to the incidence of chronic diseases among retired people that are always looking for healthcare services to manage their diseases. Moreover, this study showed that most participants have taken medicines depending on their physician’s advice, while some of them depended on their past experiences with the same illness and others have taken medicines based on advice from family members, friends and the media. Previous studies also reported that some people used medicines based on their individual

knowledge and whether they had past experience with such illnesses. Sometimes people administering medicines depend on advice from family and friends.

The past experience with such illnesses and its effective treatment may influence people's decisions in obtaining healthcare services. Previous physicians' advice was a common reason for self medication and some people seek for the advice of a physician or pharmacist for different ways to be a part of their practicing of self-treatment. This study showed that the prevalence of self-medication seems to be lesser compared to previous researches conducted in India. It was significantly associated with uneducated people, educated people, and people with alone living status and people with higher self-care orientation. This result is consistent with other studies that obtaining medicines was higher among the educated people with a high prevalence of self-medication among them. Another study showed that self-medication is significantly associated with those who have high medication knowledge and self-care orientation. This could be due to the increased health awareness in educated individuals and the needs of taking care of their own health. Mean while, living status was found to be associated with the practice of self-medication. People who are living alone might be more independent compared to those who are living with family or other people.

Limitations

This study was limited to the first action that will be taken when the respondents face any health problems. This may or may not reflect the actual action of health seeking behaviour in different health conditions. In addition, the reasons for seeking medicines and the types of medicines were not assessed in this study. Consequently, the severity of illness may influence people's decision towards obtaining medical assistance. Medicine taking behaviour was limited to three months prior to the study. This may not explain the current behaviour of taking medicines among the public. Lastly, this study was also limited to convenience sampling method in Narasaraopet; therefore the data cannot be generalized to all Indians in the country.

Conclusions

From this study most participants tend to consult a physician as a first action to treat any health problems, whereas there is some minority of the population who would choose to consult the pharmacists as a first action if they face any health problems. Even though people have the right to seek treatment from anyone they choose, they are advised to go for physician's consultation. However, age group, ethnicity, occupation and monthly income were significant predictors of the first action of health seeking behaviour. The practice of self-medication is quite significant in the public, especially the unformed education respondents. The healthcare professionals and others healthcare authorities should work together to increase the awareness of the public about the negative effects of self-medication if used inappropriately and help them to make the right decision related to health problems. In addition, educational intervention programs are needed to educate people on the proper use of non-prescription medicines that are usually taken for treating their minor illnesses.

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References

1. Azhar MIM, Gunasekaran K, Kadirvelu A, Gurtu S, Sadasivan S, Kshatriya BM. Self-medication: Awareness and Attitude among Malaysian Urban Population. *Int J Collab Res Intern Med Public Health*. 2013;5(6):436-443.
2. Kroeger A. Anthropological and socio-medical health care research in developing countries. *Soc Sci Med*. 1983;17(3):147-161.
3. Hausmann-Muela S, Ribera JM, Nyamongo I. Health-seeking behavior and the health system response. Available at: <https://pdfs.semanticscholar.org/3511/6a3c0a88898a531ce214e4448861ae00e320.pdf> (accessed 5 April 2018).
4. Lu Y, Hernandez P, Abegunde D, Edejer T. The world medicines situation. Geneva: WHO. 2011.
5. Kesselheim AS, Stedman MR, Bubrick EJ, Gagne JJ, Misono AS, Lee JL, et al. Seizure outcomes following the use of generic versus brand-name antiepileptic drugs. *Drugs*. 2010;70(5):605-621. doi: 10.2165/10898530-000000000-00000
6. Klemenc-Ketiš Z, Kersnik J. The effect of demographic characteristics on self-medication patterns: a cross-sectional nationwide study from Slovenia. *Coll Antropol*. 2011;35(4):1237-1242.
7. Loyola Filho AL, Lima-Costa MF, Uchôa E. Bambuí Project: a qualitative approach to self-medication. *Cad Saude Publica*. 2004;20(6):1661-1669.
8. Klemenc-Ketiš Z, Hladnik Z, Kersnik J. Self-medication among healthcare and non-healthcare students at University of Ljubljana, Slovenia. *Med Princ Pract*. 2010;19(5):395-401. doi: 10.1159/000316380
9. Azmi M, Akmal S, Chua G. A national survey on the use of medicines (NSUM) by Malaysian consumers. Selangor: Quality Use of Medicines, Pharmaceutical Services Division, Ministry of Health Malaysia. 2013.
10. Coulter A, Parsons S, Askham J. Where are the patients in decision-making about their own care. Geneva: WHO; 2008.
11. Andersen RM. National health surveys and the behavioral model of health services use. *Med Care*. 2008;46(7):647-653. doi: 10.1097/MLR.0b013e31817a835d
12. Andersen R, Davidson P. Improving Access to Care in America: Individual and Contextual indicators. In: Kominski GF, ed. *Changing the US Health Care System: Key Issues in Health Services Policy and Management (3rd ed)* San Francisco: Jossey-Bass; 2007.
13. Abdo-Rabbo A, Al-Ansari M, Gunn BC, Suleiman BJ. The use of medicines in Oman: public knowledge, attitudes and practices. *Sultan Qaboos University Medical Journal*. 2009;9(2):124-131.
14. Stewart DC, George J, Bond CM, Cunningham IT, Diack HL, McCaig DJ. Exploring patients' perspectives of pharmacist supplementary prescribing in Scotland. *Pharm World Sci*. 2008;30(6):892-897. doi: 10.1007/s11096-008-9248-x
15. Chua S, Sabki N. Use of nonprescription medications by the general public in the Klang Valley. *J Appl Pharm Sci*. 2011;1(9):93-98.
16. Major C, Vincze Z. Consumer habits and interests regarding non-prescription medications in Hungary. *Fam Pract*. 2010;27(3):333-338. doi: 10.1093/fampra/cmp105

17. Calamusa A, Di Marzio A, Cristofani R, Arrighetti P, Santaniello V, Alfani S, et al. Factors that influence Italian consumers' understanding of over-the-counter medicines and risk perception. *Patient Educ Couns.* 2012;87(3):395-401. doi: 10.1016/j.pec.2011.10.003
18. European Association of Hospital Pharmacists. *Medicine shortages in European hospitals.* Brussels: EAHP; 2013.
19. MDG Gap Task Force. *Delivering on the Global Partnership for Achieving the Millennium Development Goals.* New York: UN. 2008.
20. Sawalha AF. A descriptive study of self-medication practices among Palestinian medical and nonmedical university students. *Res Social Adm Pharm.* 2008;4(2):164-172. doi: 10.1016/j.sapharm.2007.04.004
21. Hassali MA, Shafie AA, Al-Qazaz H, Tambyappa J, Palaian S, Hariraj V. Self-medication practices among adult population attending community pharmacies in Malaysia: an exploratory study. *Int J Clin Pharm.* 2011;33(5):794-799. doi: 10.1007/s11096-011-9539-5