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ORIGINAL RESEARCH ARTICLE

Self-Medication: Knowledge and Practice among Urban and Rural Population

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ABSTRACT

Self-medication practice is increasingly recognized throughout the world. This present study was conducted with the objective to evaluate the knowledge and practice of the urban and rural population those who visit a community pharmacy in Mandya district. The self administered questionnaire was developed for this study by referring various other previous studies. This consisted of both open-ended and closed-ended questions. These questionnaires were distributed to the people who were visiting a community pharmacy and those who were ready to participate in the study. Response was obtained at the same time. About 69 respondents were in the age group of 18-30 years, and 97 were males. Majority 88.4% of the respondents were undergraduates. Amongst, 86 had a trust in allopathic system of medicine and 88 were used to identify the drugs by trade/generic names. Pharmacist was the main source of drug information for the respondents and most (114) were unaware of the ADR/DDI of the drugs. Majority (114) of them felt that self-medication is economical and most common symptoms for self-medicating were fever and body pain. Fever relieving medicines and pain killers comprised the majority of the drug class used for self-medication. Pharmacists have a greater role to play in self-medication since majority of the respondents used pharmacist as a source for drug information.

Key words: Self-medication, OTC drugs, Pharmacist, Adverse drug reactions.

INTRODUCTION

It is common for people to feel unwell, and human beings have an inherent tendency to use herbs, potions, medications, etc. for treating themselves. Every day people throughout the world act on their own for their health; they practice self-care. In some instances, they do so through self-medication, which is now increasingly being considered as a component of self-care [15]. Self-medication is a major form of self-care. Self-medication or self-treatment is the treatment of self-diagnosed diseases, disorders or symptoms. It is the use of nonprescription medicines by people through using their own initiative. It has also been defined as obtaining and consuming medication without professional supervision, which comprises of acquiring medicines without a prescription, purchasing drugs by resubmitting/ reutilizing an old prescription, taking medicines on advice of relative or others, or consuming leftover medicines already available at home, in other words it can be defined as intermittent or continued use of a medication that is prescribed by physician for chronic or recurrent symptoms [1-6]. The concept of self-medication which encourages an individual to look after minor ailments with simple and effective remedies has been adopted worldwide. In majority of economically deprived countries, nearly 60-80% of health related problems are treated through self-medicated as lower cost alternative [7].

Self medication is practiced around the world, although there has been restriction and effective control in some developed countries [10]. Some government bodies are encouraging self-care of minor illnesses, including self-medication. Patient

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empowerment is viewed as a positive step in the development of the relationship between patient and healthcare provider and is considered as an important health policy concept [1]. In the United Kingdom where on the average 50% of health care takes place within the realm of self-medication, the government encourages self reliance, while agencies like the World Health Organization (WHO) promote individual family and community participation in primary health care [5]. Self-medication is a global problem in developing and developed countries and is influenced by several factors such as education, economy of the family and society, law, availability of drugs and exposure to advertisements [2]. Medicines for self medication are often called Over the Counter (OTC) drug, which are available without a Doctor's prescription through pharmacies, mostly in the less developed countries. Recent development of the pharmaceutical companies contribute to a wide spread availability of OTC Medicine. There is also the potential for misuse and abuse of such products [3] and there is much public and professional concern about the irrational use of drugs. The prevalence rates are high all over the world; up to 68% in European countries, while much higher in the developing countries with rates going as high as 92% in the adolescents of Kuwait, 31% in India and 59% in Nepal.[4] Poor diagnostic ability compounded by a limited knowledge of appropriate management result in the increase of self-medication and low rate of health care utilization [5].

In developing countries like India, easy availability of wide range of drugs coupled with inadequate health services result in increased proportions of drugs used as self-medication compared to prescribed drugs. Although, OTC drugs are meant for self-medication and are of proved efficacy and safety, their improper use due to lack of knowledge of their side effects and interactions could have serious implications, especially in extremes of ages (children and old age) and special physiological conditions like pregnancy and lactation. There is always a risk of interaction active ingredients of hidden preparations of OTC drugs and prescription medicines, as well as increased risk of worsening of existing disease pathology [8]. The most commonly available OTC medications are pain-killers, cough and cold remedies, anti-allergy medicines, vitamins and energy tonics. Although these medications are considered risk-free and useful for the treatment of common health problems, their excessive use can also lead to serious side-effects and unfavorable reactions [9]. Consequently, antibiotics and habitual drugs are easily available to every common man who wishes to take. This together with poor awareness leaves the layman un-informed about the potential side effects of these drugs. Also, the cost issues lead the general public to approach in various other ways to get the solution for health related problems rather than visiting a doctor. A study conducted in north India, showed that 82.9% professional students were self medicated for their perceived illness.[16] To our knowledge, there is no published data with regard to self-medication practice in our community. Therefore, we conducted a prospective study in urban population of a city in South Karnataka, to evaluate their knowledge and attitude about self-medication and its practices.

MATERIALS AND METHODS

A questionnaire based survey was carried out in a community pharmacy at Mandya during March and April 2013. Mandya is a city of south Karnataka, India, populated around one lakh thirty seven thousand. A self-administered questionnaire consisting of both open-ended and close-ended items was distributed among the participants aged 18 years and above, after explaining the nature and purpose of the study. The participants were ensured for the confidentiality of their personal information. The study population comprised of the people those visiting the community pharmacy which is situated in Mandya. Any event of use of medications for illness without a prescription from doctor was termed as self-medication.

This was a prospective questionnaire based survey, in which a self-administered questionnaire was developed and designed by considering the various other previous studies [1, 4, 5, 6, 8, 10, 13].The questionnaire was designed to capture demographic details of the participants, practice of self-medication, and the last section to capture the knowledge of participants regarding self-medication. This was a descriptive survey and the data was summarized as counts and percentages, some questions had multiple options to choose for, therefore the sum total of percentage was not always expected to be 100%. The data was obtained only from those questionnaires which were completely answered and were analyzed. The respondents were classified as urban and rural and also the comparison was made among them.

RESULTS

A total of seven hundred people visited the community pharmacy at the time of our visit, with the response rate of 17.1%, 120 people responded for the study questionnaire. The mean age of the respondents was 31 years. Amongst them 78 were from urban and 42 were from rural residents. There were 97 (80.8%) males and 23 (19.2%) females. Majority of the respondents were qualified undergraduate 88.4%. It was found that 52 (43.3%) respondents were aware about the diseases. (**Table 1**) shows the complete demographics of the respondents.

Trust in medicine system:

Most of the respondents had a trust in allopathic system of medicine (71.7%), and 19.2% of the respondents had trust in unani and ayurvedic medicinal systems.

Among the respondents, 88 (73.3%) used to recognize the drug by trade/generic names and 09 (07.5%) by color of the drug.

Pharmacists, friends and advertisement comprised 65.0%, 25.8% and 09.2% respectively for the source of drug information for the respondents. Majority (113) of the respondents were unaware of the precautions while using the self-medication. Very few (06) respondents were aware of the ADR/DDI of the medications that they used. (**Table 2**) describes the overall knowledge of the respondents regarding the self-medication.

Reasons for self medication:

When respondents were asked about the reasons for self-medication, Majority of them gave a common reasons like self-medication is economical (114), it provides quick relief (102), its time saving (94) and self-medication is easy/convenience (93).

Reasons for self-medication were analyzed, 51 (42.5%) used the self-medication often and 43 (35.8%) occasionally (**Table 4**). The most common symptoms that lead to self-medication were fever (91), body pain (72), headache (68), and flu/cough/cold (66). The other reasons for self-medication are described in (**Table 5**).

Therapeutic class of drugs used:

Fever relieving medications (108), pain killers (93), decongestants/cough medicines (59) and anti allergic drugs (55) were the most common class of the drugs that were used by the respondents for their ailments. (**Table 6**) shows the overall class of drugs that were used.

DISCUSSION

This study showed that self-medication practices are very common among the people around Mandya district. The study population in this survey consisted of both urban and rural population. Majority of the respondents were in the age group of adolescence and adult. All the respondents used self-medication at one or other point of the time. Although it is true that self medication can help treat minor ailments that do not require medical consultation and hence reduce the pressure on medical services particularly in the underprivileged countries with limited health care resources, the availability of the more complex drugs groups such as antibiotics without prescriptions is a source of great concern [4].

From this study it was found that majority of the respondents identified the drug by their trade/generic name, which was supported by the other previous study conducted in Nigeria, where most of the respondents recognized their medications by trade or generic name.[5] In this study the respondents usually obtained the information from the pharmacists and friends. The results were similar to the previous study where the information regarding medicines was obtained from the patent medicine dealers [5].

Previous studies reported that the most common reasons for self-medication were fever cough/cold, and pain which was similar to our study where majority of them self-medicated for the same reasons [6,11,14].Major reasons of self medication were economical, quick relief, and time saving which were similar, the respondents do not go for clinic for minor ailments and they conclude that self-medication is easy and convenient for them [14].

The current study revealed that the majority of the respondents were unaware of the ADRs and DDI that were possible with the drugs and also do not know the precautionary measures that have to be followed. Hence pharmacists may have an important role to play in helping people seeking self-medication. People who practice self-medication may not be adequately knowledgeable to judge, for example, the choice or dose of the drug or how long the treatment should continue. Several medical articles have reported that common medications have been associated with adverse health reactions [13]. A very small percentage of pharmacists actually give the appropriate medication when consulted. It has also been shown by recent studies that familiarity and easy access to certain pharmaceuticals are determinants for self- medication. This brings us to the issue of advertising of medicines by pharmaceutical companies [4].

This study revealed that the major factor which influenced the pattern of self-medication among respondents was education. Since majority of the respondents were undergraduates, these people were unaware of the potential benefits and risks associated with the use of drugs without prescription.

This descriptive survey concluded that the respondents had a poor knowledge about appropriate self-medication. The practice of self-medication was common and hence, to minimize the dangers of self medication, the public has to be educated about the dangers of indiscriminate use of drugs, and also the drug authorities must insist on drugs being supplied by the community pharmacists only on a valid prescription. Since majority of the respondents used pharmacists as the source for drug information in self-medicating, pharmacists also have the greater role to play in self-medication where they can act as a source for the public in creating awareness about the hazards of self-medication. Pharmacists should be continuously educated to create the awareness regarding the ADR/DDI.

There are a few limitations of this study, the questionnaire was a self reported one and was not validated which could have led to loss of some more information regarding self-medication. There was less time for the respondents to respond for all the questions in the questionnaire and also lack of privacy which may have hindered the response rate.

Table 1: Demographic Details

Demographics	No. of respondents, n (%)
Age in years	
18-30	69 (57.5)
31-40	28 (23.3)
>40	23 (19.2)
Sex	
Male	97 (80.8)
Female	23 (19.2)
Place of residing	
Urban	78 (65.0)
Rural	42 (35.0)
Educational background	
Primary	33 (27.5)
Secondary	35 (29.2)
Degree	38 (31.7)
Master's	14 (11.6)
Family's annual income in lakh	
<1	54 (45.0)
1-5	57 (47.5)
>10	09 (07.5)
Awareness about diseases	
Yes	52 (43.3)
No	68 (56.7)
Total	**120 (100)**

Table 2: Knowledge Assessment

Questions	Responses	No. of respondents, n (%)
Trust in medicine system	Unani	2 (01.7)
	Ayurvedic	21 (17.5)
	Allopathic	86 (71.7)
	Homeopathic	11 (09.1)
Recognition of medicines by	Trade/Generic name	88 (73.3)
	Colour	09 (07.5)
	Common usage name	23 (19.2)
Source of drug information	Pharmacists	78 (65.0)
	Friends	31 (25.8)
	Books	00 (00.0)
	Advertisement	11 (09.2)
	Leaflets	00 (00.0)
Aware about precautions while using self-medications	Yes	07 (05.8)
	No	113 (94.2)
Aware about ADR and DDI of drugs used in self-medications	Yes	06 (05.0)
	No	114 (95.0)

Table 3: Major Reasons for Self-Medication

Reasons for self-medication	No. of respondents, n (%)
Economical	114 (95.0)
Quick relief	102 (85.0)
Time saving	94 (78.3)
Easy and convenience	93 (77.5)
Previous experience with similar symptoms	86 (71.7)
Unavailability of doctors	37 (30.8)

Table 4: Frequency of Self-Medication among the Respondents

Frequency of self medication	No. of respondents, n (%)
Occasional	43 (35.8)
Often	51 (42.5)
Very often	26 (21.7)

Table 5: Most Common Symptoms That may Lead To Self-Medication t

Symptoms that leads to self-medication	No. of respondents, n (%)
Fever	91 (75.8)
Body pain	72 (60.0)
Headaches	68 (56.7)
Flu/cough/cold	66 (55.0)
Diarrhea	41 (34.2)
Allergy	32 (26.7)
Inability to sleep	24 (20.0)
Infection	12 (10.0)

Table 6: Most Common Class of Drugs used In Self-Medication

Common class of drugs used	No. of respondents, n (%)
Fever relieving medicines	108 (90.0)
Pain killers	93 (77.5)
Decongestants/Cough medicines	59 (51.7)
Anti allergy	55 (45.8)
Vitamins	41 (34.2)
Antibiotics	30 (25.0)
Herbal/homeopathic	27 (22.5)
Sleeping pills	11 (09.2)
Birth control pills	06 (05.0)

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