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A STUDY TO IDENTIFY, ASSESS AND ANALYSE THE SELF-MEDICATION PRACTICES AND THE IMPACT OF COUNSELING AMONG THE PEOPLE OF DAVANGERE CITY

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ABSTRACT

According to WHO'S definition, self-medication is "the selection and use of medicines by individuals to treat self-recognized illness or symptoms". Self-medication is the first option for most of the ailments which makes self-medication a common practice worldwide. A total of 200 respondents were covered during the study period. Majority of the respondents [(n=167), 83.5%] were practicing self-medication, whereas [(n=33), 16.5 %] of respondents were not practising self-medication. Major reason for the practice of self-medication was for getting quick relief (33.50%), and the most common drug class used was NSAIDS (41%) for fever, cough and cold (41.58%) which was the the major indication. Majority of the respondents relied that they got information on self-medication from the pharmacist (58.70%). Found a positive impact (52.70%) on counseling given about self-medication. Easy access to medicines was shown to be promoting factor for self-medication. Although self-medication is difficult to eliminate, interventions can be made to discourage this practice and ensure safer usage of drugs. Health education campaigns, strict legislations on dispensing drugs from pharmacies and increasing the quality of and access to health care are among the important interventions to change the people's health seeking behaviour and protect them from the potential risks of self-medications. Health care professionals mainly the pharmacist should consider patient counseling when distributing the drugs for reducing health risks from irrational medicine use.

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INTRODUCTION

Craving for medicine and self-medication has been part of mankind from one generation to another. According to William Osler, a great feature which distinguishes man from animals is the desire to take medicine [1]. The concept of self-medication which encourages an individual to look after minor ailments with simple and effective remedies has been adopted worldwide [2]. According to WHO definition self-medication is “the selection and use of medicine by individuals to treat self-recognized illness or symptoms”. Indian Pharmaceutical Federation defines self-medication as the use of non-prescription medicines by people on their own initiative. Self-medication involves acquiring medicines without prescription, resubmitting old prescriptions to purchase medicines, sharing medicines with relatives or members of one’s social circle or using left over medicines at home [1]. Self-medication includes the use of non-prescription drugs and a range of different alternative medicines such as herbal remedies, food supplements and traditional products [3]. Responsible self-medication helps to reduce the cost of treatment, travelling time as well as consultation time. Major problems related to self-medication are wastage of resources, increased resistance of pathogens and causes serious health hazards such as adverse reaction and prolonged suffering.

Studies on factors influencing the pattern of self-medication practice should be of interest due to its possible deleterious effect. Therefore, this study was carried out to provide practical insights into the issue of self-medication in Davangere, to identify, assess, analyze the self-medication practices and the impact of counseling on self-medication practices among the people in the city. The main objectives of the study were to assess the prevalence of self-medication practices in the population of Davangere city, identify the common illness/symptoms that necessitate self-medication, identify factors influencing self-medication, to identify the common drugs used for self-medication and their sources and to assess self-medication practices and the impact of counseling on self-medication.

MATERIALS AND METHODS

Development of forms required for the study

Questionnaire:

A questionnaire was prepared which consisted of three sections. Section A consisted of subject demographics, section B consisted of questions to assess the self-medication practices and section C consisted questions to assess impact after counseling.

Data Collection Form:

A suitably designed data collection form was developed and it included information on drugs found at the time of study.

Ethical Consideration:

Ethical approval was obtained from the Institutional Ethical Committee of Bapuji Pharmacy College, Davangere.

Study Procedure:

After identifying the subjects, direct interview was performed with the subjects followed by direct access to their medicine box after which a counseling session was provided to the subjects regarding self-medication and the information was entered in Section A and B of the questionnaire and in the data collection form. After 1 – 2 weeks a second visit was made to evaluate the impact of counseling on self-medication practices and entered in the section C of the questionnaire. Data collected from the enrolled subjects were assessed and analyzed on the basis of questionnaire parameters.

RESULTS AND DISCUSSIONS

A questionnaire based descriptive study was conducted for 6 months among the population of Davangere, Karnataka, India. A total of 200 subjects were covered during this study period. Majority of the subjects [(n=167), 83.5%] were practicing self-medication, whereas 33 (16.5%) subjects were not practicing self-medication. Therefore, the prevalence of the self-medication practice in Davangere was found to be 83.5%. Out of 167 subjects who were practicing self-medication, 92 were males (55.09%) and 75 were females (44.91%). In correlation, a study conducted by Saleem T.K, et al showed that prevalence of self-medication was 86.95% [3]. A higher prevalence of self-medication was observed in the study conducted in Nigerian population by Afolabi O A et al and the prevalence rate was 95% [8]. In contrast, a lower prevalence rate was observed in a study conducted by Aqueel T et al i.e., (61.2%) [2]. However, various studies carried out showed a prevalence range between 15% to 80%. Reasons for wide variations may be due to differences in education, socio-economic status, and non-availability of medical facilities and easy availability of drugs.

Prevalence of Self-Medication Based on Gender Distribution.

Gender	No. of Subjects (n=167)	Percentage
Males	92	55.09%
Females	75	44.91%

The prevalence of self-medication in male was higher (55.09 %). In correlation, higher prevalence rate of self-medication among males (66%) was reported by Aqueel T et al. [2]. Males are economically stronger, can easily access medical store and freely move outside. More dependency on males than females in the society may be a reason for relatively low self-medication level in females. In contrast, the study conducted by Guptha P et al. where higher prevalence rate of self-medication was found in females (64.7%) [5].

Prevalence of Self-Medication Based on Age Group.

Age Group (Years)	No. of Subjects (N=167)	Percentage
18-25	52	31.13%
26-35	43	25.75%
36-45	37	22.16%
46-55	18	10.78%
>55	17	10.18%

Among the 167 respondents, prevalence of self-medication was more in the age group of 18-25 years [(n=52), 31.13%]. In our study, the prevalence of self-medication was more among the people of 18-25 age groups (31.13%). The reasons for higher prevalence in the young population might be the carefree, risk prone attitude of the youth and easy access to a plethora of information. Similar studies by Guptha P et al reported higher prevalence of self-medication in age group of 35-45 (31.5%) [5] which was in contrast to our study. A study conducted by Kulkarni P K et al showed decreasing pattern of self-medication with increase in age, this can be explained by the fact that as a person gets older, he or she starts visiting doctors frequently [7].

Prevalence of Self-Medication Based on Occupation.

Occupation	No. of Subjects (N=167)	Percentage
Employed	54	32.34%
House Wives	47	28.14%
Students	32	19.16%
Unemployed	34	20.36%

Among the subjects who practiced self-medication, majority [(n=54), 32.34%] were employed followed by house wives [(n=47), 28.14%], students [(n=32), 19.16%], and unemployed [(n=34), 20.36%]. This survey explores that practice of self-medication is most common among business/ professional's (32.34%). This was lot similar with the study conducted in Kerala by Sangeetha Nair M S (33%) [10].

Reasons for Self-Medication.

Reasons For Self- Medication	No. of Subjects (N=167)	Percentage
Quick Relief	56	33.50%
Non Seriousness Of Illness	53	31.73%
High Consultation Fee	24	14.50%
Busy Schedule	18	10.77%
Prior Experience	16	9.50%

Majority of the participants were practicing self-medication for quick relief [(n=56), 33.50%] followed by non-seriousness of illness [(n=53), 31.73%]. In this study, the most common reason for self-medication was quick relief (33.50%) followed by non-seriousness of illness (31.73%). Similar results were found in the study conducted by Rethesh Malvi et al in Bhopal, 58.6% of participants considered that they use self-medication for quick relief, and 23.2% reported that they practiced self-medication due to busy schedule [6]. In our study the percentage of subjects practicing self-medication due to their busy schedule was low (10.77%). Most common reasons for self-medication varied from study to study. High consultation fee was reported as major reason for self-medication in a study conducted by Kulkarni. P et al (61.10%) [7], whereas non-seriousness of illness was reported as the major reason for self-medication by Aqueel T et al (41.80%) [2].

Source of Information about Drugs for Self-Medication.

Source Of Information About Drugs	No. of Subjects (N=167)	Percentage
Pharmacists	96	57.40%
Advertisements	27	16.16%
Friends	25	14.97%
Parents	19	11.37%

The common source of information for self-medication, were the pharmacists [(n=90), 58.70%], followed by influence of advertisement [(n= 25), 16.90%] and friends [(n= 20), 14.20%], where they provided information based on their knowledge and past experience. In our study, more than half of the respondents practicing self-medication took advice from pharmacists (57.40%). It was evident from the studies conducted in Pakistan by Hussain S et al (53.84%) [9]. Pharmaceutical advices have helped the community and the patients with respective disease prevention and management. Implementation of pharmaceutical care in community pharmacies could help alleviate this problem. Community pharmacists can play an active role in the provision of primary health care by attending minor ailments and refer patients to the physician, were patients require further investigation. Different results were found in studies conducted in Ahmadabad city by Puwar B et al, where 60% of cases showed that friends were the source of information for self-medication. Whereas a study conducted by Kulkarni K P et al in south Indian city showed that doctors were found to be the most common source of information, that implies the respondents has got information from old prescription [7].

Type of Drug use for Self-Medication.

Type Of Drug Use	No. of Subjects (N=167)	Percentage
Branded Drug	115	68.86%
Generic Drug	52	31.14%

Out of 167 respondents, [(n=115), 68.86%] requested the drugs by their brand names for self- medication, whereas [(n=52), 31.14%] requested by generic drugs and it correlates to the study conducted by Jain P et al in Haryana [4].

Indications for Self-Medication.

Indications for Self Medication	No. of Subjects (N=291)	Percentage
Fever, Cold, Cough	121	41.58%
Headache	92	31.62%
Body Pain	50	17.18%
Acidity	28	9.62%

The common health problems of the respondents that led to the practice of self-medication were analyzed. The results showed that majority of the respondents suffered from fever, cold and cough [(n=121), 41.58%], followed by headache [(n=92), 31.62%], body pain [(n=50), 17.18%], and acidity [(n =28), 9.62%]. Total percentage exceeded 100 as multiple options were mentioned for a single question.

Common Class of Drugs Used for Self-Medication.

Class Of Drugs	No. of Subjects (N=317)	Percentage
NSAIDS	130	41.00%
Antacids	25	7.89%
Drugs Acting On Respiratory Tract	24	7.57%
Antibiotics	23	7.26%
Antiallergens	21	6.62%
Anthelmintics	11	3.47%
Haematinics	9	2.84%
Sleeping Pills	8	2.52%
Antitubercular	4	1.26%
Miscellaneous	62	19.57%

The results for the survey of drug class that are most commonly used for self-medication were analgesics [(n=130), 44%] followed by other miscellaneous agents [(n=62), 19.57%] like vitamin supplements and balms. Total percentage exceeded 100 as multiple options were mentioned for a single question. NSAIDS were the most commonly self-medicated category of the drug among the respondents (41%). In relation, a study conducted by Kumar N et al showed high usage of NSAIDS (74.8%) for self-medication [1]. In the current study the major indication for practicing self-medication was fever, cough and cold [(n=121), 41.58%]. This is in contrast to the observations made by Jain P et al where GI illness (23.7%) was the major indication for which self-medication was practiced [1].

Types of Request Made to Pharmacist for the Drug.

Types Of Request Made To Pharmacist For The Drug	No. of Subjects (N=167)	Percentage
Asking The Name Of Drug	94	56.29%
Telling The Symptom	48	28.74%
Presenting Old Prescription	14	8.38%
Showing Old Sample Of Drug	8	4.79%
Asking The Category	3	1.80%

The mode of request the respondents used to get the drugs for the self- medication [(n=94), 56.29%] were by mentioning the specific name of the drug or drug product, [(n= 48), 28.74%] by telling their symptoms. Moreover the type of request made by majority of respondents was by asking the name of drug (56.2%). A similar result was found in the study conducted by Jain P et al in Haryana (37.5%) [4], and in other study, the maximum type of requests were made by mentioning the symptoms (57.9%).

Opinion about effectiveness of Counseling by Subjects.

Parameter	No. of Subjects (N=167)	Percentages
Average	75	44.91%
Good	67	40.12%
Excellent	18	10.78%
Poor	7	04.19%

The respondents were asked about the effectiveness of the counseling session and majority of them responded that it was average [(n=75), 44.91%].

Attitude towards Self-Medication after Counseling.

Parameter	No. of Subjects (N=167)	Percentage
Discontinued	88	52.70%
Continued	79	47.30%

The questionnaire survey was also carried out to find out the number of respondents still practicing self-medication. Out of 167 respondents [(n=88), 52.70%] discontinued the self-medication practice after the counseling. When we assessed about the changes made, majority relied that they will consult the physician [(n=52), 59.09%]. Similar counseling has provided to participants regarding potential harmful effects of self-medication informally in a study conducted by Aqueel T et al in Islamabad Pakistan [2].

Reasons for Continuing Self-Medication after Counseling.

Parameter	No. of Subjects (N=79)	Percentage
Not Necessary To Consult A Doctor To Treat Minor Ailments	47	59.49%
Low Economic Status	18	22.78%
Ease Of Access To Pharmacy Than To A Clinic.	11	13.92%
Ease Of Information From Internet.	3	03.81%

Out of 167 respondents, 79 admitted that they are still continuing the self-medication practice even after the counseling. The reasons for the self-medication were that the respondents assumed that there was no necessity to consult the doctor to treat minor ailments [(n= 47), 59.49%], low economic status [(n=18), 22.78%], easy availability of the drugs in pharmacy [(n=11), 13.92%], and availability of drug information from internet sources [(n=3), 03.81%].

Alternatives Considered by Subjects after Counseling.

Parameters	No. of Subjects (N=88)	Percentage
Consulting A Doctor	52	59.09%
Non Pharmacological Treatment	30	34.09%
Self-Limiting	6	06.82%

Majority of the respondents started consulting doctor for minor ailments after counseling. [n=52, 59.09%] followed by those considered non pharmacological treatment [n=30, 34.09%] and those who waited till the symptom to subside (self-limiting). [n=6, 06.82%].

CONCLUSION

The study reveals that the prevalence of self-medication in Davangere city is high. People are more prone to self-medication for getting quick relief and due to non-seriousness of the illness. Paracetamol and other NSAIDS were the most commonly used class of drug for self-medication. Self-medication was more likely to be used than prescribed medication to treat fever, cough and headache. Pharmacist was the main source of information regarding the drugs. Though self-medication is promoted by WHO because of affordability, inaccessibility in health services in developing world, benefit must be weighed against adverse effects. Even though our study indicates the need to carryout awareness programs among the public as well as health care professionals, implementation of stringent rules on dispensing drugs, patient counseling while distributing drugs will help to discourage the practice of self-medication which in turn can protect them from potential risks of self-medication.

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