



A Cross Sectional Study on Knowledge, Attitudes and Practices Pertaining to Self-medication Among Adults of 25 - 45 Years of Mevalurkuppam Panchayat

Prathibha KM^{1*}, Nivya Manimozhiyan², Padma Priya M² and Padmanaban A²

¹Professor, Department of Physiology, Saveetha Medical College, Thandalam, Chennai, Tamil Nadu, India

²CRRI, Saveetha Medical College, Thandalam, Chennai, Tamil Nadu, India

*Corresponding Author: Prathibha KM, Professor, Department of Physiology, Saveetha Medical College, Thandalam, Chennai, Tamil Nadu, India.

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Abstract

Self-medication means the use of medical products by individuals to treat self-recognized disorders or symptoms or intermittent or continuous use of medications prescribed by physician for chronic or recurring disease or symptoms, the main source being over the counter. Existing literature on self-medication reveals that it is a fairly common practice in the economically deprived communities. The objectives of the present study were to estimate the frequency and study the knowledge, attitude and practices of self-medication among the adults of 25 - 40 years of age of Mevalurkuppam Panchayat. A validated and structured questionnaire was administered to the 161 study participants by a face to face interview. Based on the calculated scores, the prevalence of self-medication and proportions of various factors contributing to self-medication were identified. The mean age of the study participants was 33.98 ± 5.819 years. The number of males and females who participated in the study were 69 (42.3%) and 92 (56.4%), respectively. In the present study, there was very high prevalence of self-medication with almost the entire population practicing some form of self-medication (98.8%). The analysis revealed that prevalence and frequency of self-medication was higher in males than females. While the participants practiced self-medication mostly for aches and pains (63.4%) and fever (62.4%), the reasons for self-medication among the study participants were cost saving (58%), convenience (42%) and lack of trust in doctor (8%). About 97% of the participants procured drugs from community pharmacies while 3% took from the previous left over prescriptions. It was observed that 49.7% of the study participants who practiced self-medication never experienced an adverse reaction, while 12.3% of them experienced adverse reactions. In the present study, 30.5% of people who practiced self-medication experienced vomiting as adverse effect followed by nausea (27.1%), rash (25.4%), vaginal thrush (22%) and diarrhea (20.3%). Lack of awareness about the harmful effects of self-medication among adults of Mevalurkuppam Panchayat and the contributing factors was uncovered. The results of the study highlight the urgent and impending need to plan and execute health awareness and education programs in Mevalurkuppam Panchayat and in general, globally. It is important to have base-line data about the drug using population of a geographic area, so that future interventions or policies can be effectively planned.

Keywords: Self-medication; OTC Over the Counter; Adverse Effect; Drug Reactions

Introduction

Internationally, self-medication has been reported as being on rise [1]. Self-medication means the use of medical products by individuals to treat self-recognized disorders or symptoms or inter-

mittent or continuous use of medications prescribed by physician for chronic or recurring disease or symptoms, the main source being over the counter (OTC) [2]. Briefly, it involves medication without prescription, resubmitting old prescriptions, sharing medicines

with family or social circles and use of medicines stored at home [3].

Existing literature on self-medication reveals that it is a fairly common practice in the economically deprived communities. It has been noted that the purchase of drugs that can be purchased only with prescription in developed countries are available OTC in many developing countries [4].

In India, pharmacy attendants and pharmacists play an important role in the practice of self-medication among public [5]. Drug retail shops frequently serve as the first point of contact with health care system, for the people who opt for self-medication. Usually, these proprietors do not have the professional knowledge required to render quality health services to patients, in terms of counselling and pharmaceutical care [6]. According to the observations made in Tamil Nadu and Uttar Pradesh, the prescriptions used for earlier illness were reported as the most common source of information about drugs used for self-medication [3].

In developing countries, multi drug resistance to treatment is the major problem faced by the public and one of the primary causes for drug resistance is the practice of self-medication [6]. The harmful effects of self-medication range from incorrect self-diagnosis, drug interaction, use of drugs other than for original indication [3]. In several studies, it was reported that inappropriate self-medication resulted in wastage of resources, increased resistance to pathogens and generally entailed serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence [4]. Irrational use of drugs may also result in accidental poisoning. There is always a risk of using expired drugs, sharing them with friends or consuming medicines that have been originally prescribed for some other problems [3]. Irrational use of drugs especially antibiotics in self-medication leads to increased morbidity among population and to the emergence of multiple resistant strains of the causative organism which are difficult to treat especially in immuno-compromised individuals [7]. The aim of the present study was to conduct a KAP study on self-medication among the adults of a South Indian village. The objectives of the present study were:

- To estimate the frequency of self-medication among the adults of 25 - 40 years of age of Mevalurkuppam Panchayat
- To study the knowledge, attitude and practices of self-medication among the adults of 25 - 40 years of age of Mevalurkuppam Panchayat.

Methodology

Ethical considerations

The study was initiated after presentation of the proposal to and obtaining clearance from both Institutional Scientific Review Board and Institutional Ethics Committee of Saveetha Medical College and Hospital. Information sheet with pertinent information was given to all the participants invited to participate in the study. Written informed consent was obtained from all participants of the study.

Study setting and population

The sampling frame comprised of all adults of 25 to 45 years of Mevalurkuppam Panchayat.

The study participants comprised of 161 adults (selected by systematic random sampling method) of Mevalurkuppam panchayat who fulfilled the inclusion criteria and provided informed consent for participation in the study. Sample size was calculated using prevalence data from previous study conducted in a coastal village in South India [5].

Procedure

- Written informed consent was obtained from study participants after detailed explanation of study using an information sheet.
- Basic demographic details were collected- Name, Age, Sex, Occupation.
- Participants who fulfilled the inclusion criteria undertook a self assessment using a questionnaire (Annexure 1). The questionnaire was administered to the subjects only once at the time of survey. On completion of questionnaire, the results were calculated as per the scoring systems. Based on the scores, the prevalence of self-medication and proportions of various factors contributing to self-medication were identified. The questionnaire responses were number coded for protecting subjects' privacy.

Statistical analysis

All data was double entered into MS excel and checked for data entry errors. Statistical analysis was done using Graph Pad Prism trial version software. $p < 0.05$ was considered to be statistically significant.

Results

The mean age of the study participants was 33.98 ± 5.819 years. The number of males and females who participated in the study

were 69 (42.3%) and 92 (56.4%), respectively. In the present study, there was very high prevalence of self-medication with almost the entire population practicing some form of self-medication (98.8%). The analysis revealed that among 69 males 67 (97.1%) and among 92 females all (100%) practised self-medication. The mean frequency of self-medication was higher among males (7.55 ± 5.561) when compared to females (6.41 ± 3.662). However, the results were not statistically significant ($p = 0.217$)

Among the study participants, the chief complaints for which they practiced self-medication mostly for aches and pains (63.4%) and fever (62.4%) (Figure 1).

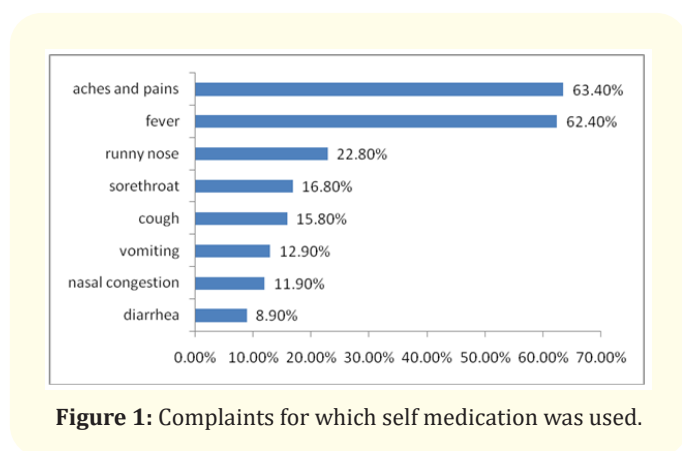


Figure 1: Complaints for which self medication was used.

The reasons for self-medication among the study participants were cost saving (58%), convenience (42%) and lack of trust in doctor (8%). The criteria for selection of drugs for self-medications among study participants were found to be from community pharmacists (30.1%), previous prescription from doctors (18.45%), opinion of family members (5.55%) and opinion of friends (4.9%) (Table 1). Among the study participants while purchasing the drugs, importance was primarily given to the price of the drug (61.4%) when compared to the brand of drugs (37.6%), type of drugs (7.9%), indications of the drugs (4%) or adverse effects (12.9%).

On questioning about the source of drugs, 97% of the study participants who practised self-medication procured drugs from community pharmacies while 3% procured drugs from the previous left over prescriptions. Among the study participants, checking the instructions which come with the package inserted for self treatment was always done only by 4.3% of the participants.

Criteria	Percent
Recommendation by community pharmacists	30.1
Opinion of Family members	5.5
Opinion of friends	4.9
Previous experience	2.5
Previous doctor's prescription	18.4

Table 1: Criteria for selection of drugs for self medication.

Further among those who checked the instructions, 4.4% fully understood the meaning, 64.4% partly understood the meaning while 31.15% did not understand anything. It was observed that the determination of dosage was done mainly by consulting a pharmacist (70.3%) (Table 2).

Method	Percent
By checking the package insert	5.9%
By consulting a doctor	12.9%
By consulting a pharmacist	70.3%
By consulting family members/friends	13.9%
From the newspapers, magazines, books, or TV programs	2.0%
From the Internet	2.0%
From my previous experience	5.0%

Table 2: Mode of determination of dose of self medication.

In the present study, 47.9% of the participants never switched drugs during the course of self-treatment while 10.4% sometimes changed and 1.8 % always changed the drug. About, 50% of them switched drugs since the former drug did not work while 25% of them switched since the former drug ran out and 25% of them changed since the latter was cheaper. With regard to the dosage, 52.8% never changed and 9.2% sometimes changed the dosage of the drugs during the course of self treatment. Table 3 summarises the reasons for altering the dose during an episode of self-medication.

Reason	Percent
Improving conditions	51.9%
Worsening conditions	25.9%
To reduce adverse reactions	18.5%
Drug insufficient for complete treatment	3.7%

Table 3: Reason for altering dose of the self medication.

About 47.9% of the respondents were not concerned that they might have taken counterfeit drugs. Sadly, 90 % of the participants have taken the same drugs with different names at the same time. While practicing self-medication, 57.4% of the participants stopped the drug after symptoms disappeared while 23.8% stopped a few days after the recovery. Table 4 summarises the reasons behind the time of stopping the self-medication.

Time	Percent
After a few days regardless of the outcome	7.9%
After symptoms disappeared	57.4%
A few days after the recovery	23.8%
After drugs ran out	12.9%
At the completion of the course	3.0%
After consulting a doctor/pharmacist	3.0%

Table 4: Time of stopping the self medication.

It was observed that 49.7% of the study participants who practiced self-medication never experienced an adverse reaction, while 12.3% of them experienced adverse reactions. Data in table 5 showed their courses of action following adverse reactions.

Treatment	Percent
Stopped taking drugs	12.3
Switched to another antibiotic	4.9
Consulted pharmacy staff	.6
Consulted a doctor	.6
Consulted family members/friends	1.2
Did nothing	4.9

Table 5: Actions taken following adverse reactions during self medication.

The attitude of the study participants with regard to the practice self-medication was as follows: acceptable (39.9%), not acceptable (20.2%) and good (1.8%). Among the study participants who practiced self-medication, 39.9% of people were not sure if they could treat the disease by themselves while 12.3% of people felt that they couldn't do so. About 9.8% of the participants felt that they could treat the disease by themselves.

In the present study, 30.5% of people who practiced self-medication experienced vomiting as adverse effect followed by nausea (27.1%), rash (25.4%), vaginal thrush (22%) and diarrhea

(20.3%). The knowledge assessment with regard to self-medication revealed that 23.3% of study participants felt higher doses resulted in faster recovery. They also thought that broad-spectrum drugs were better than narrow-spectrum drugs (20%). Table 6 presents the knowledge assessment of study participants regarding self-medication

Statement	Number	Percentage
Broad-spectrum drugs are better than narrow-spectrum ones	33	20.2
Higher doses result in faster recovery	38	23.3
Lower doses result in less adverse reactions	31	19
Switching drugs enhances drug effects	32	19.6
Switching drugs reduces adverse reactions	29	17.8
Intravenous is better than oral medication	30	18.4

Table 6: Knowledge assessment of study participants regarding self medication.

Discussion

Self-medication means the use of medical products by individuals to treat self-recognized disorders or symptoms or intermittent or continuous use of medications prescribed by the physician for chronic or recurring disease or symptoms, the main source being over the counter drugs (OTC). It involves medication without prescription, resubmitting old prescriptions, sharing medicines with family or social circles and use of medicines stored at home.

Self-medication in any country is a hurdle for the control of diseases [6]. The prevalence of self-medication is currently high in the Mevalurkuppam Panchayat. It is an alarming fact from the analysis of the data, it can be observed that all the females in the area practiced self-medication. The American Pharmaceutical Association estimated that of the 3.5 billion health problems treated in the USA annually, 57% were treated with non-prescription drugs. In studies conducted in developing countries, the prevalence of self-medication was shown to be 43.2% in Ethiopia, 51% in Slovenia, 55% in Egypt, 55.3% in Pakistan, 56.9% in Nigeria, 80.9% in Malaysia.

The primary source of self-medication was over the counter medications offered by the local pharmacists in the Mevalurkup-

pam Panchayat. The prevalent habit of self-medication could be attributed to poor socio-economic status, high cost, non-availability of doctors in rural areas and previous experiences of treating similar conditions [8]. Factors such as law, attitudes prevailing in the society, exposure to advertisements and access to internet are known to strongly influence self-medication based on previous studies [7].

In the present study, the residents of Mevalurkuppam demonstrated poor awareness and knowledge with regard to the use of drugs and their adverse effects. The harmful effects of self-medication range from incorrect self-diagnosis, drug interaction, use of drugs other than for original indication [9]. Irrational use of drugs especially antibiotics in self-medication leads to increased morbidity among population and to the emergence of multiple resistant strains of the causative organism which are difficult to treat especially in immuno-compromised individuals.

Conclusion

Lack of awareness about the harmful effects of self-medication among adults of Mevalurkuppam Panchayat and the contributing factors was uncovered. The results of the study highlight the urgent and impending need to plan and execute health awareness and education programs in Mevalurkuppam Panchayat and in general, globally. It is important to have base-line data about the drug using population of a geographic area, so that future interventions or policies can be effectively planned.

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