

## ORIGINAL ARTICLE

## KNOWLEDGE AND PATTERN ABOUT MEDICINE USE AMONGST RURAL PEOPLE OF MAHARASHTRA

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## ABSTRACT

**Introduction:** Self-medication is one of the most modern ways of expression of the always present need of men and women for care of their health. Inappropriate self medication results in irrational use of drugs, wastage of resources, and increased drug resistance, entails serious health hazards such as adverse reactions and prolonged suffering. So, the present study was planned to know the pattern of drug use and their knowledge regarding medicines stored at home pertaining to side effects of drugs and expiry date of the drugs amongst people of village Lohgaon.

**Methodology:** This was a cross sectional community study done in Lohgaon. From the family register, total 400 families were selected by simple random sampling method. Out of 400 families surveyed by home visits, 198 houses were having medicines stored at home at the time of survey. House to house survey was carried out and the family member present at house was asked to show medicinal drug available at home if any and its use as self-medication. Of 198 informants, 170 members responded well and gave complete information were included in the study.

**Results:** Socio-demographic distribution of informants shows equal number of males and females. Majority of the study participants were in the age group of 31-50 years (43.53%) and middle socio-economic class 80 (47.06%). It was found that majority of houses were having NSAIDs (Non-steroid anti-inflammatory drugs) at home i.e. 42% and 10% were having antimicrobials. Knowledge of expiry date and side-effects of particular medicine was increase with increase in educational status and socio-economical status.

**Conclusion:** It is concluded from the present study that around half of the people of village having any type of medicines stored. NSAIDs were the most common drug to be stored by study participants. Around 10% of the participants were having Antimicrobials. Knowledge of expiry date and side-effects of particular medicine was increase with increase in educational status and socio-economical status.

**Key Words:** Self-Medication, NSAIDs, Antimicrobials, Modified Prasad's classification

## INTRODUCTION

Self-medication is one of the most modern ways of expression of the always present need of men and women for care of their health. William Osler has said that "the desire to take medicine is perhaps the greatest feature that distinguishes man from animal".<sup>1</sup> Self medications is the self administration of medication to treat self-recognized illness or symptoms, medication not prescribed by or in manner not directed by a physician. The problem with self-medication is that it is based on self-diagnosis.<sup>2</sup> Everybody is aware of the different medicines available for almost all common illnesses due to wide spread networking of information through television and internet. A large numbers of people, when they fall sick, do not consult the physician. They either consult a chemist and obtain a medicine from him, or may consult a neighbour who may be having some tablets left over from his previous illness, and readily spares them.

In 1995 the World Health Organization Expert Committee on National Drug policies stated that self-

medications is widely practiced in both developed and developing countries. In countries like England where 50% of the health care (on average) takes place within the realm of Self Medication it shows its broad prevalence.<sup>4</sup> During the past few years, more and more medicines were deregulated from prescription only into over-the counter (OTC) medication status.<sup>5</sup> The "OTC" (over the counter) has no legal implications in India. Despite the acknowledged benefits of using an OTC medication, its use is still associated with potential risks like inappropriate prolonged use and use of excessive dosages, drug-drug interactions, misdiagnosis, and delayed treatment of serious illnesses.<sup>6</sup>

Inappropriate self medication results in irrational use of drugs, wastage of resources, and increased drug resistance, entails serious health hazards such as adverse reactions and prolonged suffering.<sup>4,7</sup> Due to inadequate exposure and knowledge the rural people often consume drugs given by pharmacists/ friends/ relatives or use leftover drugs from previous prescriptions thus giving rise to problems such as tolerance, resistance and drug interactions.

So, the present study was planned to know the pattern of drug use and their knowledge regarding medicines stored at home pertaining to side effects of drugs and expiry date of the drugs amongst rural people from the adopted village under department of community Medicine of rural medical college, Loni.

**MATERIALS AND METHOD**

This was a cross sectional community study done in Lohgaon, adopted village under Community Medicine department of Rural Medical College; Loni. It is at 5 K.M. distance from the tertiary hospital. The peoples are having access to private practitioners and medical stores nearby in the vicinity with walking distance of 15 minutes.

Study population consists of family of village enlisted at urban health center. From this family register, total 400 families were selected by simple random sampling method. Out of 400 families surveyed by home visits, 198 houses were having medicines stored at home at the time of survey. Prior to data collection students were briefed about the methodology and purpose of the project. Then the field investigator directed to collect data with the help of pretested self-designed questionnaire. House to house survey was carried out and the family member present at house was asked to show medicinal drug available at home if any and its use as self-medication. The questions were asked in their language either to the family member having highest educational status or head of the family (Hindi/Marathi). Data so collected from completed questionnaire was compiled in Microsoft excel format and was subjected to statistical analysis.

Of 198 informants, 170 members responded well and gave complete information and remaining 28 (14%) could not. For analysis purpose data of these 170 in-

formants were included. The Study was conducted between December 2011 to January 2012. This study was approved by Ethical Committee of the institute. Informed written consent was taken from the study participant. Modified Prasad’s classification of socio-economic status<sup>8</sup> based on the per-capita income of family was used. In the present study no family belonged to BPL or upper high class. The informants were classified into three socio-economic groups (upper, middle and lower class) for analysis.

**RESULTS**

This study, done in village Lohgaon, shows that out of total 400 houses surveyed, 198 (49.5%) houses were having any type of medicines stored at home at the time of survey and using it as self-medication as and when require. 170 members responded well and gave complete information and for analysis purpose data of these 170 informants were included. Socio-demographic distribution of informants shows equal number of males and females i.e. 85 (50%). Majority of the study participants were in the age group of 31-50 years (43.53%) and middle socio-economic class 80 (47.06%). It was found that majority of houses (88.82%) had allopathic drugs stored followed by ayurvedic and herbal medicines.

**Table 1: Class of allopathic drugs stored at home (Multiple Responses) (n=170)**

Class of drug	Frequency (%)
NSAIDS	72 (42.00)
Anti histaminic	34 (20.40)
Antitussives	45 (26.47)
Antacids/Antidiarrheals	22 (12.94)
Antimicrobials	17 (10.00)

**Table 2: Association of Knowledge of Expiry Date and Side-Effect of Medicine with Socio-demographic Factors of Informants**

Variable	Total (n=170)	Do not know Expiry Date	Chi-square	Do not Know Side-Effect	Chi-Square
<b>Age (in Years)</b>					
<30	56 (32.94)	36(64.29)	12.89**	48 (85.71)	1.38
31-50	74 (43.53)	39(52.70)		63 (85.14)	
>50	40 (23.53)	11(27.50)		31 (77.50)	
<b>Gender</b>					
Male	85 (50.00)	35(41.18)	6.0242*	67(78.82)	2.74
Female	85 (50.00)	51(60.00)		75 (88.24)	
<b>Education status</b>					
Illiterate/ primary	134 (78.82)	78(58.21)	14.9**	125 (93.28)	48.14**
Up to higher secondary	15 (8.82)	04(26.67)		11 (73.33)	
Graduate & above	21 (12.35)	04(19.05)		6 (28.57)	
<b>Socio Economic class</b>					
Upper	41 (24.12)	11(26.83)	14.87**	28 (68.29)	9.81**
Middle	80 (47.06)	42(52.50)		69 (86.25)	
Lower	49 (28.82)	33(67.35)		45 (91.84)	

(Note: \* p-Value<0.05;\*\* p-Value<0.001)

Further the knowledge about expiry dates of medicine and common side-effects of drugs was inquired and

analysed to observe its association with demographic factors of respondents. Table 2 exhibits increased

knowledge regarding expiry date of medicine amongst male, from higher socio-economic status, increasing age group and higher educational status which found statistically significant. Knowledge of expiry date and side-effects of particular medicine was increase with increase in educational status and higher socio-economical status. This difference was statistically significant.

According to classification of allopathic drugs it was found that majority of houses were having NSAIDS (Non-steroid anti-inflammatory drugs) at home i.e. 42% and 10% were having antimicrobials. Among NSAIDS, Paracetamol was the most common drug found to be stored. Among 17 informants who store Antimicrobials at home, around half of them (41.18%) store Ciprofloxacin at home. Other common Antimicrobials found to be stored at home were Amoxicillin (29.41%) and Metronidazole (29.41%) out of total 17 informants who store Antimicrobials at home.

Table 2 shows significant association between higher socio-economic status and increasing educational status and knowledge about side effects of medicines.

## DISCUSSION

The present study comprised of 85 (50%) informants from each gender and majority of them being from middle age group and middle socioeconomic class.

Allopathic agents were found in majority of the houses followed by ayurvedic and herbal medicines. NSAIDS were found in highest proportion as compared to other allopathic agents. The results of study conducted at Rohtak by Kaushal J et al.<sup>4</sup> were found to be consistent with present study. In contrast they found higher proportion for ayurvedic and homeopathic medicines. Mansee et al. also reported same result. In present study 10% of informants store Antimicrobials. This result was in consistent with result of Mansee et al who reported that around 7% of self-medication was of Antimicrobials.<sup>9</sup>

Further the present study revealed that 84 (i.e.49.41%) informants know the importance of expiry date for each medicine and mention that they read expiry date before immediate use. Jyoti Kaushal et al<sup>4</sup> reported 80% participants were in habit of checking expiry date in their study. Study conducted by Ahmed Abdo-Rabbo et al<sup>10</sup> in Oman mentioned that only 17% of the study participants admitted of using medicines without checking expiry date. Pankaj Jain et al<sup>11</sup> also reported higher percentage (72%) in their study results. These values were higher compared to present study. The differences between results may be because of varied study groups and different study settings.

Further association between knowledge of expiry date and socio-demographic factors revealed significant association with male gender, higher socioeconomic class, increased age group and increased level of education. Similar results were reported by S.A.Sallam et al<sup>12</sup> in their study. In Indian context males are decision makers in most of the families. Males are more exposed

to the sources of knowledge related to medicines. Increased age, higher socioeconomic class and improved educational status contribute to increased awareness of medicinal use.

Of the total 170 participants only 28 (i.e.16.47%) informants were aware of the fact that the drugs can cause adverse effects. This finding was found similar with study results of Shweta S. and Jagmohan S.<sup>2</sup> conducted in Punjab (i.e.23%).while Jyoti Kaushal et al reported that 49% of their study participants were aware of the fact that the drugs can cause adverse effects if taken without medical advice. The knowledge of adverse effects of medicine was found significantly associated with upper socioeconomic class and increased educational level but was not associated with age and gender. Similar results were quoted by AO Afolabi in their review.<sup>13</sup>

## CONCLUSIONS & RECOMMENDATIONS

It is concluded from the present study that around half of the people of village having any type of medicines stored and are using it as self-medication. NSAIDS were the most common drug to be stored by study participants. Around 10% of the participants were having Antimicrobials. Knowledge of expiry date and side-effects of particular medicine was increase with increase in educational status and socio-economical status.

There was practice of using medicines without medical advice amongst rural people. So there is need of health education regarding medicine use in the community. Medical practitioners should inform the patients that the medication prescribed are only for the present ailment and should not be used further without their consultation. Awareness among people about safe and judicious use of drugs is desired and essential. The rational use of medicines is very important to prevent drug resistance in the community. The irrational practices observed increase the burden on health care system.

## Limitations

The sample size for the present study was small as the study was conducted in limited geographic area. The reason for this could be that the present study was undertaken as short-term student project, which was to be completed within short time period, so the topic could not be explored further. So there is need to carry out further exploratory studies with similar topic and in wider area.

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