


Original Research Article

Estimation of self - medication practices among rural Kanchipuram, India

Gayathri S^{1*}, Kokila Selvaraj², Satyajith P³, Mithunkumar G.H.⁴

¹Post Graduate, ²Professor and Head, ³Associate Professor, ⁴Assistant Professor
Department of Community Medicine, Meenakshi Medical College and Research Institute,
Kancheepuram, Tamil Nadu, India

*Corresponding author email: dr.gayathri90@gmail.com

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Abstract

Background: Interest in self-care, poor economic conditions, health-seeking behavior, socio-cultural factors, ignorance, excessive advertisement on drugs and availability of drugs in other than medical shops are responsible for the practice of Self-Medication.

Aim and objectives: To find out prevalence of Self-Medication practice among rural people in Kanchipuram and to find out possible reasons for Self-Medication and factors influencing self-medication practice.

Materials and methods: A cross-sectional study was done in five randomly selected villages in the field practice area of MMCH&RI. After getting informed consent, the questionnaire was administered to 250 households randomly.

Results: Among 250 households surveyed, 47.6% (119) respondents were in the age group of 20-40 years, 56.8% (142) were females and 51.2% (128) households belong to the poor socio-economic class. The prevalence of self-medication in the sample was 58.4% (146). Younger age, higher educational status, and higher socioeconomic status were associated with higher prevalence. In this study, the main reason given for self-medication practice was the poor quality of care in Government hospitals (32.9%) followed by 26% of subjects said they treat themselves for similar illness from previous experience etc. The common symptoms for taking self-medication were fever (39.8%) and headache (23.45%). Majority of them (74%) kept the medicines in closet and few (15.2%) kept in bags. Commonly taken medicines are fever relieving drugs (39.04%) and cough syrups (28.08%). Adverse drug effects which were commonly encountered due to self-medication are gastritis (39.04%), rash and swelling (29.45%), sedation (15.06%) and increase in symptom (16.43%). Among the people who took painkillers, 59% of them experienced gastritis.

Conclusion: Increased prevalence of self-medication even among rural people may lead to consequences such as drug interactions, drug dependence and drug resistance due to irrational use of drugs and causes increased morbidity.

Key words

Prevalence, Self-medication, Irrational use, Questionnaire, Morbidity.

Introduction

Nowadays, people in the world act on their own to medicate themselves, which is now increasingly being considered as a component of self-care [1]. Self-medication can be defined as obtaining and consuming drugs without the advice of a physician. Studies on self-medication showed that it is influenced by many factors such as educational status, family, cultural practice, law, availability of drugs and advertisements [2]. In nearly 60-80% economically poor countries, the health-related problems are treated through self-medication as lower cost method [3]. It has been noted that purchase of many drugs that can only be purchased with a prescription in developed countries are OTC (over the counter) drugs in developing countries that leads to 2.9 – 3.7% causes of death due to drug-drug interaction. There is also substantial variation in the prevalence rate of self-medication among developed and developing countries due to the inherent difference in cultural and socioeconomic factors, disparities in health care system and drug dispensing policies [4]. Pain-killers, cough and cold remedies, vitamins and anti-allergy medicines are commonly available OTC drugs. Eventhough these drugs are risk-free; their excessive use may lead to serious consequences and adverse reactions [5]. Around 82.9% professional students were self-medicated for their perceived illness in a study conducted in north India [6]. In other studies done in rural India, the prevalence of antibiotic-related self-medication to be 37% and overall self-medication to be 80% in rural population [7]. However, World Health Organization (WHO) promotes self-medication without medical consultations in order to reduce the burden on health sectors for the effective and quick relief of symptoms [8]. Therefore, a community-based,

cross-sectional study was proposed to determine the prevalence and predictors of self-medication among rural Kanchipuram.

Aim and objectives

- To find the Prevalence of Self-Medication practice among rural people in Kanchipuram.
- To find out possible reasons for Self-Medication and factors influencing self-medication practice.

Materials and methods

Based on the prevalence rate of 80% from the previous study done in rural population, the sample size was calculated by considering 5% absolute precision. The sample size was found to be 246. After getting the ethical clearance from Institutional Ethical Committee, the study was carried out in the field practice area of MMCH&RI. Five villages were selected randomly among 10 villages under the field practice area. From each village 50 households were selected randomly and the pretested questionnaire was administered to one of the adult members of the family after explaining the purpose of this study and getting informed consent. The questionnaire consisted of details about demographic profile, a common illness in the past 3 months, the practice of self-medication and adverse effects of self-medication.

Statistical analysis

Totally 250 adult members participated in the study. The data was organized and entered in the Microsoft Excel. The analysis was done using Statistical Package for Social Sciences (SPSS) software version 23. Prevalence of self-medication among rural people and demographic details were measured as descriptive data. Chi-

square test is done to check the association between independent variables and practice of self-medication.

Results

Among 250 households surveyed, 102 (40.8%) respondents were in the age group of 20-40 years, 142 (56.8%) were females and 144 (57.6%) households belong to poor socioeconomic class (**Table - 1**). The prevalence of self-medication in the sample was 58.4%. The socio-demographic characteristics influencing self-medication are displayed in **Table - 2**. In this study, the main reason given for self-medication practice was the poor quality of care or dispensaries in Government hospitals (32.9%) followed by 26% of subjects said they treat

themselves for similar illness from previous experience etc. (**Table - 3**). The common symptoms for taking self-medication were fever (39.8%), headache (23.45%), body pain (17.9%) etc. Majority of them (74%) kept the medicines in closet; few (15.2%) kept in bags and only 10.8% kept it over the table. Commonly taken medicines are fever relieving drugs (39.04%), cough syrups (28.08%), painkillers (26.71%) and antibiotics (5.47%) etc. Adverse drug effects which were commonly encountered due to self-medication are gastritis (39.04%), rash and swelling (29.45%), sedation (15.06%) and increase in symptom (16.43%). Among the people who took painkillers, 59% of them experienced gastritis.

Table - 1: Distribution of demographic details of the participants.

Variables	Categories	Frequency (n)	Percentage (%)
Age	20-40 years	119	47.6
	41-60 years	76	30.4
	>60 years	55	22.0
Sex	Male	108	43.2
	Female	142	56.8
Educational Status	Illiterate	85	34.0
	Primary Education	65	26.0
	Higher Secondary/ Middle School Education	56	22.4
	College Education	44	17.6
No. of Family Members	1-4 Members	150	60.0
	>4 Members	100	40.0
Socioeconomic Status	Upper SES*	122	48.8
	Lower SES	128	51.2
Marital Status	Married	197	78.8
	Unmarried / Widow	53	21.2
Episodes of Illness in the Last 3 Months	No Illness	54	21.6
	1 Episodes	109	43.6
	2 Episodes	73	29.2
	3 Episodes	11	4.4
	4 Episodes	3	1.2

*SES: Socioeconomic status

Table - 2: Factors associated with self –medication.

Variables	Categories	Practice of Self Medication		Total	Chi-square value	P value
		Yes	No			
Age group	20-40 Years	80 (67.2%)	39 (32.8%)	119 (100.0%)	10.893	0.004*
	41-60 Years	33 (43.4%)	43 (56.6%)	76 (100.0%)		
	>60 Years	33 (60.0%)	22 (40.0%)	55 (100.0%)		
Sex	Male	68 (63.0%)	40 (37.0%)	108 (100.0%)	1.630	0.202
	Female	78 (54.9%)	64 (45.1%)	142 (100.0%)		
Educational Status	Illiterate	53 (62.4%)	32 (37.6%)	85 (100.0%)	8.490	0.037*
	Primary Education	30 (46.2%)	35 (53.8%)	65 (100.0%)		
	Higher Secondary/ Middle School Education	31 (55.4%)	25 (44.6%)	56 (100.0%)		
	College Education	32 (72.7%)	12 (27.3%)	44 (100.0%)		
No. Of Family Members	1-4 Members	92 (61.3%)	58 (38.7%)	150 (100.0%)	1.328	0.249
	>4 Members	54 (54.0%)	46 (46.0%)	100 (100.0%)		
Socio-economic Status	Upper SES	84 (68.9%)	38 (31.1%)	122 (100.0%)	10.716	0.001*
	Lower SES	62 (48.4%)	66 (51.6%)	128 (100.0%)		
Marital Status	Married	119 (60.4%)	78 (39.6%)	197 (100.0%)	1.539	0.215
	Unmarried / Widow	27 (50.9%)	26 (49.1%)	53 (100.0%)		

*p value: <0.05(statistically significant)

Discussion

This study interpreted that the self-medication practice is common among the rural people (58.4%). Prevalence of self-medication differs in a different area. This difference may be due to sociocultural factors and health seeking behavior of the people. In developing countries, the

prevalence was reported to be 12.7% to 95% [9]. Other studies done in Telangana in the year 2014 shows a higher prevalence of 80% and study were done by Pushpa R Wijesinghe, et al. in a rural area of Sri Lanka reported 35.3% [10]. Another study done in Ethiopia noted 41% prevalence of self-medication [11]. Although

self-medication can help in treating minor diseases without doctor's consultation and reduces burden in the health system, inadequate knowledge about the drugs can lead to consequences like drug interactions, drug resistance, and dependence. In our study younger age group has practiced self-medication in a higher percentage of 67.2%, but a study done in Ethiopia reported that people > 50 years of age with higher prevalence [12]. Males showed a prevalence of 63% compares to females 54.9%, but the result was not statistically significant. In rural area males are the major revenue generator of the family that could be one of the reasons for

higher prevalence among males. A study was done in rural Sri Lanka also reported no association between gender and self-medication practices (males- 22.6% and females- 27.2%) [13]. Among the study subjects, 72.7% with college education practiced self-medication. A study was done by Hafeezullah Khan, et al. also reported that > 50% of Pakistani subjects educated upto university level practice self-medication with adequate knowledge about the drugs [14]. A common reason for self-medication was the poor quality of care and dispensaries in government hospitals (32.9%). In Jammu city, 35.1% people also reported the same reason [15].

Table - 3: Reasons for self-medication practice.

Reasons	Percentage
Poor quality of care in government hospitals	32.9%
Lack of time to visit Doctors	13.7%
Doctor's advice not needed for common illness	24%
Treating similar illness with previous experience	26%
Crowd avoidance	2%
High cost of consultation fees	1.4%
Total	100%

Conclusion

The government should allocate adequate staffs and fund for health facilities in the rural area as many of the people in the rural area belongs to lower socioeconomic status and depends on government health services. As our study reported a higher prevalence of self-medication among rural people, the public has to be continuously educated on dangers of irrational uses of drugs. Drug authorities must strictly insist the pharmacist to supply drugs only on prescription. There are few limitations in this study the assessment of the prevalence of self-medication was done only for 3 months and lack of privacy might have hindered the response of the subject.

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