

## Original Research Article

# Self-medication practices versus health of the community

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### ABSTRACT

**Background:** Self-medication is a common practice worldwide and the irrational use of drugs is a cause of concern. Self-medication involves the use of medicinal products by the individuals to treat self-recognized disorders or symptoms, or the intermittent or continuous use of a medication prescribed by a physician for chronic or recurring diseases or symptoms. The objectives of the study were to find out the prevalence of self-medication practices in the community; to describe the common conditions where self-medication is practiced.

**Methods:** A community based cross sectional study was conducted in a rural population at Kuthambakkam village, Tamil Nadu from February 2015 to July 2015. This village falls under the rural field practice area of Department of Community Medicine, Saveetha Medical College and hospital, Thandalam. There were 1175 households in this village of which 165 households were identified for the study purpose using simple random sampling technique. Statistical analysis: Data entry and analysis was done using SPSS version 16 software. Descriptive statistics were calculated for background variables, attitude and practices of self-medication.

**Results:** The study was conducted in 165 households in Kuthambakkam village, the rural field practice area of Department of Community Medicine, Saveetha Medical College. The median age of the study participants was 38 years. The minimum age was 17 and maximum was 77 years. 73 (44.2%) of study subjects reported having health problems currently. Of them, 76.7% replied they consulted a doctor for their problem, 17.8% resorted to self-medication and rest 5.5% took native treatment at home.

**Conclusions:** It is imperative to address the practice of self-medication among the people in the age of growing drug resistance being reported. Periodic studies on the knowledge, attitude and practice of self-medication may give an insight into the pattern of drug use among the people.

**Keywords:** Attitude, Practice, Self-medication, Rural population

### INTRODUCTION

Self-medication is a common practice worldwide and the irrational use of drugs is a cause of concern.<sup>1</sup> Self-medication is the treatment of common health problems with medicines specially designed and labeled for use

without medical supervision and approved as safe and effective for such use. Medicines for self-medication are often called 'nonprescription' or 'over the counter' (OTC) and are available without a doctor's prescription through pharmacies. In some countries OTC products are also available in supermarkets and other outlets. Medicines

that require a doctor's prescription are called prescription products (R<sub>x</sub> products). India does not have a list of OTC products.<sup>2</sup>

WHO defines self-medication as “the selection and use of medicines by individuals to treat self-recognized illnesses or symptoms”. In most illness episodes, self-medication is the first option which makes self-medication a common practice worldwide. Patients understand their illness within their own conceptual framework, which includes their own beliefs, thoughts and feelings. They process that information and then make their own decision and act.<sup>3</sup>

In 1995 the WHO Expert Committee on National Drug policies stated: “Self-medication is widely practiced in both developed and developing countries. Medications may be approved as being safe for self-medication by the national drug regulatory authority. Such medicines are normally used for the prevention or treatment of minor ailments or symptoms, which do not justify medical consultation. In some chronic or recurring illnesses, after initial diagnosis and prescription, self-medication is possible with the doctor retaining an advisory role”.<sup>4</sup>

Various studies reported that self-medication may lead to delay in care seeking which results in paradoxical economic loss due to delay in the diagnosis of underlying conditions and appropriate treatment. Also, self-medication can lead to interaction between drugs which would be prevented, had the patient sought care from a licensed medical practitioner. Practicing self-medication for drugs like antibiotics might lead to drug resistance; and hence, there needs to be a check on these practices.<sup>5-7</sup>

Self-medication practices cannot be considered as entirely harmful. Drugs classified as “over the counter” can be purchased without prescription and many a times might save time and money for the patients. In majority of the hill, tribal regions, and other hard to reach areas where there is a huge shortage of human health work force, patients are still dependent on self-medication practices for minor symptoms.<sup>8</sup>

In developing countries like India, where universal access to health care is yet to be achieved, self-medication is an important health issue, as it is one of the most common and preferred modes resorted by the patients.<sup>9,10</sup> Most episodes of illnesses are treated by self-medication because of easy availability of a wide range of drugs commercially and owing to inadequate availability of health services.<sup>11</sup> With a surge of drug resistance being reported widely in the recent times, the irrational use of drugs by the community without a valid doctors' prescription has become a prime cause of concern and needs to be addressed immediately. Hence, the present study is an attempt to document the prevailing attitude and practices regarding self-medication among the rural population in Kuthambakkam village in Tamil Nadu.

## METHODS

It was a cross-sectional descriptive study conducted in a rural population at Kuthambakkam village, Tamil Nadu from February 2015 to July 2015. This village falls under the rural field practice area of Department of Community Medicine, Saveetha Medical College and Hospital, Thandalam.

### *Sample size*

On the basis of the prevalence of self-medication practices of 70% and taking relative precision as 10% of prevalence, at 95% Confidence level, the minimum sample size was calculated to be 165. There were 1175 households in this village of which 165 households were identified for the study using simple random sampling technique. From each of these selected households, one person whoever was available at the time of visit was interviewed.

### *Inclusion criteria*

Inclusion criteria were inhabitant of study area; of sound mind; can communicate by at least one of the means viz. speaking or writing; consuming any category of medicines for current illness without any prescription at the time of study.

### *Exclusion criteria*

Exclusion criteria were inhabitant outside the study area; of insane mind; unable to communicate; a registered medical practitioner; taking medicines for current illness with a valid prescription.

### *Data collection*

The data was collected from the household which covered only rural population, literate and illiterate population belonging to that community. This ensured the homogeneity of sample. The sample population consists of income groups of different level and having different life styles. The structured research instrument was an interview schedule, which sought information on demographic background and self-medication practices. Data was collected by means of personal interviews using a structured questionnaire. It was administered to the member of the household available at the time of the visit after obtaining an informed consent. Institutional ethical committee approval was obtained prior to the conduct of the study.

### *Statistical analysis*

Data entry and analysis was done using statistical package for social sciences (SPSS) version 16 software. Descriptive statistics were calculated for background variables and the prevalence of self-medication.

## RESULTS

### Socio-demographic details

A total of 165 individuals from different households were interviewed for the study purpose. The median age of the study participants was 38 years. The minimum age was 17 and maximum was 77 years. Majority of them were females (66.1%) and the rest males (33.9%). The per capita income of these households ranged from Rs. 500 to Rs. 100000 and the median was Rs. 5750. Most were nuclear family (62.5%) and others were joint family (37.5%). Majority (82.45) were married, 15.2% unmarried and rest were divorced or separated.

Majority of the respondents, 56 (33.9%) had middle school education, whereas 34 (20.6%) had high school education and 19 (11.5%) had post high school / diploma and 25 (15.2%) had primary school education. Unskilled were 20(12.1%), skilled were 19 (11.5%), semiskilled were 43 (26.1%) and majority were unemployed participants, 72 (43.6%), as most of the participants were homemakers (Table 1).

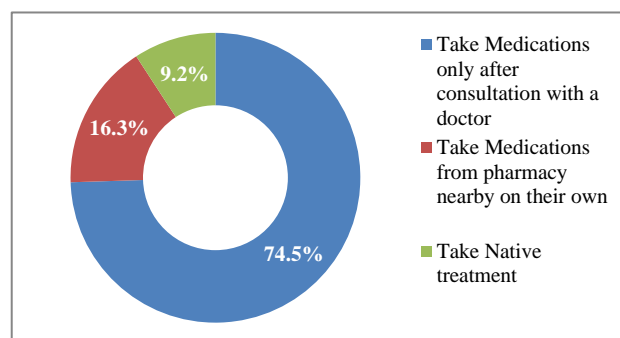
**Table 1: Socio-demographic details of study participants (N=165).**

Socio-demographic details of participants		N	%
<b>Gender</b>	Male	56	33.9
	Female	109	66.1
<b>Type of family</b>	Nuclear	103	62.5
	Joint	62	37.5
<b>Marital status</b>	Unmarried	25	15.2
	Married	136	82.4
	Divorced/separated	4	2.4
<b>Educational status</b>	Illiterate	31	18.8
	Primary school	25	15.2
	Middle school	56	33.9
	High school	34	20.6
	Post high school/diploma	19	11.5
<b>Employment status</b>	Unemployed	72	43.6
	Unskilled	20	12.1
	Semiskilled	43	26.1
	Skilled	19	11.5
	Clerical	11	6.7

### Attitude towards illness

The subjects were asked as to what they would do in the event of an illness, majority 74.5% said they would take medication only after consultation with a doctor, 16.3% said they would buy medicines from a nearby pharmacy on their own and remaining 9.2% said they would resort to native treatment based on their own previous experiences or based on their neighbor or friends advice (Figure 1). When asked what they would advise had their

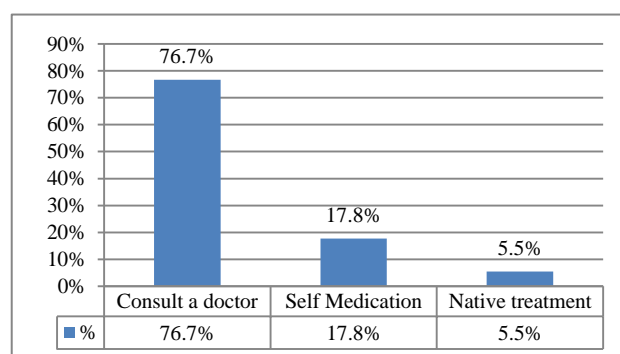
relatives or friends developed any illness, most 81.2% replied they would ask them to consult a doctor, 9.1% would suggest them to buy drugs from pharmacy without doctors consultation and another 9.7% told they would suggest native medications for their illness.



**Figure 1: Attitude of participants towards illness.**

### Practice during illness

73 (44.2%) of study subjects reported having health problems currently. Of them, 76.7% replied they consulted a doctor for their problem, 17.8% resorted to self-medication and rest 5.5% took native treatment at home. History pertaining to past illness (last one month) was also recorded. 105 (63.6%) subjects reported of having health problems in the past one month. Respiratory tract illnesses like cough, sore throat, running nose was reported by 49.5%, fever/vomiting/diarrhoea by 30.5% and musculoskeletal problems like body pain, backache was reported by 20%. These were the common health conditions reported by the study participants. For these illnesses, 64.8% took medication after consultation with a doctor, 20% resorted to self-medication and 16.2% took native treatment at home. The subjects who resorted to self-medication used drugs which were purchased earlier for similar complaints and available at home or purchased the same from nearby pharmacy without seeking doctor's advice. When asked for reasons 60% said they resorted to self-medication as they felt the symptoms were mild and tolerable, 20% due to high costs of doctor consultation, 12.4% due to inconvenient timings/ lack of time and 7.6% due to personal reasons.



**Figure 2: Practice during illness.**

## DISCUSSION

This cross sectional study was carried out in a rural population at Kuthambakkam village in Tamilnadu, to evaluate the attitude and practices of self-medication among the people. The present study showed that the mean age of the study participants was  $38.4 \pm 13.7$  years (mean  $\pm$  SD). The minimum age was 17 and maximum was 77 years. A study done in Sahaswan et al at Northern India, majority of the respondents belonged to the age group of 36-60 years (50% [300/600]).<sup>12</sup> Another study done in coastal Karnataka, the age of the respondents ranged from 18 to 66 years ( $33.51 \pm 12.98$ ).<sup>13</sup> In this study majority of the respondents (82.45) were married, 15.2% unmarried and rest were divorced or separated and majority of them were females (66.1%) and the rest males (33.9%). Previous study reported that 60% (360/600) respondents were married.<sup>12</sup> One more study done by Arun et al showed that the majority of the respondents were married (61.2%) and the participation of females (66.0%) was more compared to males (34.0%). Our study showed that 31 (18.8%) of the participants were illiterate and 43.6% were unemployed. A study done in Karnataka only 3.3% of the respondents were illiterate while 27.5% of the respondents were unemployed, and 27.7% of them undertook unskilled work.<sup>13</sup>

The present study showed that the majority of the respondents 74.5% said they would take medication only after consultation with a doctor, 16.3% said they would buy medicines from a nearby pharmacy on their own and remaining 9.2% said they would resort to native treatment based on their own previous experiences or based on their neighbor or friends advice. In a study done by Selvaraj, 66.6% subjects had reported that self-medication is harmless ( $p=0.002$ ). 89.1% respondents also agreed that it is acceptable to use self-medication whenever they had similar symptoms of previous illness and more than 90% reported they would like to use self-medication for their future personal use ( $p=0.00001$ ). On the contrary, 73.8% respondents replied that they would advise others to take self-medication ( $p=0.00001$ ).<sup>14</sup>

Several studies have shown a very high prevalence of self-medication practices both in rural and urban areas. Majority of them have reported prevalence of more than 30%.<sup>11,19</sup> A study done in Hyderabad by Kulkarni et al, showed that self-medication was practiced by 30.5% of respondents.<sup>11</sup> Another study done in Sahaswan at Northern India, the percentage of patients who were seeking self-medication was approximately 50% (300/600).<sup>12</sup> A study done by Keshari, out of 168 respondents, 117 (69.6%) reported self-medication within 1 year of recall period.<sup>15</sup> A study done in a city of Northern India, most of the housewives were in the habit of keeping the medicines though only 73% of them were in the habit of using it without any prescription.<sup>16</sup> In New Delhi, study done by Lal, the prevalence of self-medication among those who had suffered some illness episode in the last one month was 31.3%.<sup>17</sup> A study done

by Arun et al, the prevalence of self-medication was 30%.<sup>13</sup> A study conducted in Nepal found the prevalence of self-medication in the study population to be 59% during the six-month period preceding the study.<sup>18</sup> In a study conducted in urban slum area in Western Maharashtra, the prevalence of self-medication in the sample was 34.5%.<sup>19</sup>

Our study found the prevalence of self-medication to be 23.3% much lower when compared to other studies. We felt that these one fourth of the study population who practiced self-medication need to be educated about the ill effects of the practice of self-medication. They need to be made more aware of the side effects and special instructions through education, and better regulations need to be provided to protect them against the harm. Inappropriate or unsafe use of medicines should be properly addressed and managed. Health care professionals should take extra care to counsel their patients regarding correct use of drugs. In simple ways, awareness about self-medication can be created through media such as newspaper, magazine and TV. The problem of easy availability of the drugs over the counter needs to be addressed at the immediate by means of legislations by government bodies. Also, a list of drugs which can be obtained over the counter need to be prepared and made available for the people.

A study in Pondicherry had reported further lower prevalence of self-medication of 11% among their study population. Few reasons for lower prevalence in our study could be because of increased awareness of people about harmful nature of self-medication, proximity of rural health center of Saveetha Medical College, availability of several health care facilities and providers in the proximity of village. This is evident from our study as majority (76.7%) of the subjects had replied they take medication only after consultation with doctors only.

There is a need for conducting periodic studies on the knowledge, attitude and practice of self-medication among the people so as to get an insight into the pattern of drug use among the people. More multicentric studies should be carried out to understand the various factors influencing the practice of self-medication. Research should also look at how medication access can be improved for rural areas and how health-care professionals can improve awareness about the disadvantages of self-medication among the populace.

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*Ethical approval: The study was approved by the Institutional Ethics Committee*

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