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Original Research Article

Prevalence of self-medication practices in urban area of Kanchipuram district, Tamil Nadu

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ABSTRACT

Background: Self-medication is the selection and use of medicines by individuals to treat self-recognized illnesses or symptoms. Self-medication is one element of self-care. The World Self-medication Industry defines self-medication as the treatment of common health problems with medicines especially designed, labelled and approved for use without medical supervision. It is also defined as the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent disease or symptoms. This study was carried out to investigate the problem and factors responsible for self medication.
Methods: A community based cross sectional descriptive study was conducted in Anakaputhur, an urban field practice area of Sree Balaji Medical College. A pre-tested structured questionnaire was used as a study tool to interview the study participants, conducted by face to face interview.
Results: There is an association present between age groups and self-medication were the p value was 0.035. There is an association present between occupation and subjects on self-medication p=0.001. An association present between education and self-medication, per capita income and self-medication and marital status and self-medication with a p=0.000. No statistically significant association was found between other factors like tobacco use and alcohol use with self-medication.
Conclusions: Self-medication is an important health issues in India. Health education of the public and regulation of pharmacies may help in limiting the self-medication practices.

Keywords: Prevalence, Self-diagnosed, Self-medication, Urban

INTRODUCTION

Self-medication or non-prescription of drug is an individual's medical behaviour towards self-care that can-do potential wellness and also be harmful.[1] The use of medications without prior medical consultation regarding indication, dosage, and duration of treatment is referred to as self-medication. In most of the illness episodes; self-medication is the first option which makes it a common practice worldwide.[2]

Over the past 40 years there has been a push-back against the paternalistic model of health, towards a more person-centric approach involving self-care and responsible self-medication with non-prescription or over-the-counter (OTC) medicines. Responsible use of self-care products involves using the right product for the right indication (illness) at the right time and in the right way. This includes both self-medication using self-care products for treating common health problems and the use of self-care products to help reduce the risk of disease. Self-medication is a widely practiced component of self-care. The challenge and opportunity for government authorities, healthcare professionals and providers of self-medication products is to have an appropriate framework in place for responsible self-medication.[3]

The concept of self-medication has gained universal acceptance as it encourages an individual to treat minor illness with effective and simple remedies. It is even promoted so as to have self-belief in preventive, curative and rehabilitative care. Self-medication can potentially do well and also harm the people. This is especially significant in those countries where prescription drugs are available OTC due to lack of enforcement of regulations. An amplified risk of worsening of existing illness pathology as well as risk of interactions between prescription medicine and hidden active ingredients of OTC drugs are always present with self-medication.

In the developing countries like Pakistan, India, Bangladesh and Nepal, the rate of self-medication is high. More than 50% people are taking drugs without a doctor's advice. In order to tackle this problem, the governments of all the developing countries have promulgated guidelines to prevent self-medication. Each and every drug that is registered to the concerned drug authorities must be strictly monitored for sale and prescription. Health department and drug regulatory authority should follow the WHO guidelines for drug prescription and dispensing.[4]

Based on this background, the present study was carried out to find out the Determinants of Self-medication in urban area of Kancheepuram district in Tamil Nadu.

METHODS

Study area

The study was conducted in Anakaputhur, an urban field practice area of Sree Balaji Medical College and Hospital in Kancheepuram district, Tamil Nadu.

Study design

A Community based cross sectional descriptive study.

Study period

The study was conducted from June 2018 to May 2019.

Study participants

According to the 2011 census, Anakaputhur urban field practice area had a total population of 48,050 of which 24,158 were males, 23,892 were females. Total number of houses in Anakaputhur is 12,146. The study was done among adolescent and adults 15 years and above residing in the study area permanently at the time of the study.

Inclusion criteria

All participants who were 15 years and above and willing to participate in the study were selected.[5]

Exclusion criteria

Those who were not willing to participate in the study were excluded. Psychiatric patients, pregnant mother, severely ill patients were excluded from the study.

Study area

Kancheepuram district is one among the 32 districts of Tamil Nadu. According to the census of India 2011, Kancheepuram district covers an area of 4433km^2 with a population of 39.98 lakhs comprising of 20.12 lakhs males and 19.8 lakhs females. Kancheepuram, the temple town is the headquarters of the district for administrative reasons, the district has been divided into 4 revenue divisions comprising of 11 taluks with 1137 revenue villages.

Anakaputhur is a Municipality city in the district of Kancheepuram, Tamil Nadu. It is divided into 18 wards for which elections are held every 5 years. The study was conducted in Anakaputhur which is the urban field practise area of Department of Community Medicine of Sree Balaji Medical College and Hospital (SBMCH), located at a distance of 7 kilometers from the institution with an area covering approximately 16 sq. kilometers.

Sample size

Sample size was calculated based on the study done by Wijesinghe PR et al in the year 2013 in Sri Lanka which recorded the prevalence of self-medication practice of 34%.[6] Using this study prevalence as reference the sample size was calculated by using $4pq/[L]^2$ formula Adding 10% refusal rate the sample size obtained is 394 which is rounded up to 400. The sample collected during the study period was 424.

Sampling method

Anakaputhur had a total population of 48,050 as per 2011 census. As per the data available in the UHTC register. There were total of eighteen wards in Anakaputhur. The number of households 12146. The sampling technique followed for this study was systematic random sampling technique.

K = sample size in our study
N = Total no of households = 12146
n = sample size = 424
K = N/n = 12146/424=28th.

Every 28th house were selected.

The name and address of the person was noted and was visited for the data collection. If the person corresponding to the number did not give informed consent or absent, the next number was chosen and the next person was selected and interviewed. Likewise, 424 participants who

gave informed consent and willingly participated in the study were identified.

Study tools

A pre-tested structured questionnaire was used as a study tool to interview the study participants. The questionnaire was prepared in English and Tamil. It was conducted by face to face interview by the investigator himself and the responses were recorded in the questionnaire.

The questionnaire consisted of 6 sections relating to the details like socio-demographic characteristics, personal history and self-medication details,

Ethical approval

The study was approved by Institutional Ethical Review Committee of Sree Balaji Medical College and hospital, Chennai.

Informed consent

The details and purpose of the study and the confidentiality of their identity were explained to each and every participant those who were willing to participate in the study were required to sign the informed consent, after which they were included in the study. The informed consent was in Tamil, the local language of the study participants.

Statistical analysis

Data entry was done and analysed using SPSS software version 22.

RESULTS

Age distribution

The current study involves 424 study populations. In this study majority of the participant were female 66% (n=280) and 34% (n=144) of them were male. The study population belong to the age group of 20 to 70 years. About 21.7% (n=92) of them were between 31-40 years, 19.8% (n=84) of them 51-60 years and 19.3% (n=82) of them belonged to 61-70 years. A minimum of 2.4% (n=10) of the population below 20 years and 4.7% (n=20) of them were above 70 years of age.

Majority 66% (n=280) of the study population were female and 34% (n=144) of them were male. Majority 45.3% (n=192) of them have completed primary school education, 33% (n=170) of them were illiterate, 13.2% (n=56) have completed higher secondary education and 8.5% (n=36) have completed secondary school education.

Majority of the study population 40.1% (n=170) were a home maker. 33.5% (n=142) of them were semiskilled workers. 9% (n=38) were skilled workers, 7.1% (n=30) were unemployed. A minimum of 4.2% (n=18) were professionals by occupation.

Table 1: Background characteristics of study participants (n=424).

Variables	Frequency	Percentage (%)
Age groups (in years)		
< 20	10	2.4
21-30	70	16.5
31-40	92	21.7
41-50	66	15.6
51-60	84	19.8
61-70	82	19.3
>70	20	4.7
Sex		
Male	144	34
Female	280	66
Education		
Illiterate	170	33
Primary school	192	45.3
Secondary school	36	8.5
Higher secondary school	56	13.2
Occupation		
Professional	18	4.2
Skilled	38	9
Semi-skilled	142	33.5
Unskilled	26	6.1
Housewife	170	40.1
Unemployed	30	7.1
Per capita income		
Upper class	16	3.8
Upper middle class	126	29.7
Middle class	194	45.8
Lower middle class	82	19.3
Lower class	6	1.4
Marital status		
Married	408	96.2
Unmarried	16	3.8
Number of family members		
≤4 members	336	79.2
>4 members	88	20.8
Religion		
Hindu	368	86.8
Christian	32	7.5
Muslim	24	5.7

Majority of the study population 45.8% (n=194) belonged to middle class. About 29.7% (n=126) of them were upper middle class. About 19.3% (n=82) of them belonged to lower middle class. A minimal study population 1.4% (n=6) belonged to lower middle class.

About 96.2% (n=408) of the study population were married and a remaining of 3.8% (n=16) were unmarried. Majority 79.2% (n=336) of the study population the

family had 4 members and below. About 20.8% (n=88) of them had more than 4 members in the family. Majority 86.8% (n=368) of the study population belonged to Hindu religion. About 7.5% (n=32) of them belonged to Christian and remaining 5.7% (n=24) of them belonged to Muslim religion.

Table 2 shows among the study population majority 59.9% (n=254) of the study population followed over the counter medication for their treatment remedy.

Table2: Prevalence of self-medication among the study participants (n=424).

Variables	Frequency	Percentage
Treatment for illness		
Home remedy	24	5.7
Sought medical care	146	34.4
Self-medication	254	59.9

Table 3: Association between socio-demographic character and self-medication.

Variables	Self-medication		Total	Chi square value	Odds ratio	P value
	Present	Absent				
Age groups (in years)						
<20	2	8	10	15.0	-	0.035*
21-30	36	34	70			
31-40	56	36	92			
41-50	38	28	66			
51-60	52	32	84			
61-70	54	28	82			
>70	10	4	14			
Sex						
Male	84	60	144	0.224	0.90 (0.60-1.36)	0.636
Female	170	110	280			
Education						
Illiterate	108	32	140	31.9	-	0.000*
Primary school	106	86	192			
Secondary school	12	24	36			
Higher secondary school	28	28	56			
Occupation						
Professional	6	12	18	21.9	-	0.001*
Skilled	16	22	38			
Semi-skilled	88	54	142			
Unskilled	24	2	26			
Housewife	102	68	170			
Unemployed	18	12	30			
Percapita income						
Upper class	4	12	16	29.3	-	0.000*
Upper middle class	68	58	126			
Middle class	110	84	194			
Lower middleclass	66	16	82			
Lower class	6	0	6			
Marital status						
Married	254	154	408	24.8	-	0.000*
Unmarried	0	16	16			
Religion						
Hindu	218	150	368	2.5	-	0.283
Christian	18	14	32			
Muslim	18	6	24			
Tobacco use						
Yes	30	16	46	0.6061	1.28 (0.67-2.44)	0.436
No	224	154	378			
Alcohol use						
Yes	28	12	40	1.873	1.63 (0.80-3.30)	0.171
No	226	158	384			

(p value<0.05 significant at 95% CI).

Table 3 shows that there is an association present between age groups and self-medication where the p-value was 0.035. There is an association present between occupation and subjects on self-medication p=0.001. An association present between education and self-medication, per capita income and self-medication and marital status and self-medication with a p=0.000. No statistical significant association was found between other factors like tobacco use and alcohol use with self-medication.

DISCUSSION

The present study is a cross sectional study, carried out in an urban field practicing area (Anakaputhur) of Sree Balaji Medical college and hospital, Kanchepuram district Tamil Nadu to determine the prevalence of self-medication among people residing in an urban community.

The current study shows a maximum participant was female 66% and remaining 34% were male. This is similar to a study done by Annadurai et al where 73.13% of the participants were female, Saba HI et al, 67.64%.[7,8]

The current study shows a positive association between age and self-medication practice (p=0.035) similar to Osemene et al (p=0.001).[9]

A positive association present between education and self-medication practice (p=0.000), similar to a study done by Lei et al (p=0.04), Ahmed et al (p=0.001).[10,11]

A positive association present between occupation and self-medication (p=0.001), similar to a study done by Selvaraj (p=0.003).[12]

A positive association present between socio economic class and self-medication (p=0.000), similar to study done by Ahmed et al (p=0.004).[11]

A positive association present between marital status and self-medication practice (p=0.000).

CONCLUSION

Due to lack of information self-medication can cause hazardous effects such as antibiotic resistance, skin problem, hypersensitivity and allergy. Hence, developing country like India where we have poor economic status, education status as well as poor health care facilities. The People have less knowledge regarding risks associated with their self-medication.[13] We are on the edge of sword whether to promote self-medication or not.

Recommendations

Hence it is recommended that holistic approach should be taken to prevent this problem, which includes proper awareness and education regarding the self-medication and strictness regarding pharmaceutical advertising. Dispensing modes in the needs to be improved through proper education, strict regulatory and managerial strategies to make health care easily accessible and cost-effective.

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