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Self Medication- A Rising Trend, Should Doctors be worried?

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ABSTRACT

Rising availability of over the counter and prescription medication has led to the increasing trend of self medication. This study is an attempt to determine the prevalence of this behaviour in the Indian population and also identify the type of disorders for which self medication is commonly used. This is a questionnaire based survey done on 162 study subjects sent to them via E-mail and the data analysed using appropriate statistical methods. As per our study prevalence of the behaviour of self medication was found in 70.3% of the population, which was similar to the other studies. Milder disorders like common cold, fever and headache was the medical conditions for which most commonly self medications were used. Allopathic was the most prevalent system of medicine which was self prescribed.No association was found between age, sex and educational status with the pattern of self medication.

Conclusion: Self Medication has shown a rising trend which has its risks and benefits. Every doctor must be aware of this trend and must enquire regarding the same among all their patients. Patient education is key to making self medication a safe practice.

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INTRODUCTION

With advances in medical science there has been an exponential rise in the number of medications available in the market, both prescribed and over-the-counter. Due to variety of reasons like rising cost of healthcare, lack of time and limited accessibility to healthcare[1], there has been a rising trend of self medication in both the healthcare professionals and the general population[2]. Doctors must be aware about this behaviour, firstly because this practice can mask the symptoms of a particular disease and delay the diagnosis and secondly these medications can also interact with the prescription medication leading to unexpected effect of the drugs. Self medication should not be considered in a bad light as it has its own benefits[3]. There has been several studies around the world where self medication has been studied, but a very limited number of studies were done in India, especially in the general population not associated with health care profession. This is important due to the fact that India is a country with an exponentially rising population and limited access to healthcare, where self medication might be something of a necessity. This study is an attempt to determine the pattern of self medication in the Indian population and in turn to see if any intervention can be done to make this practice safe for the people.

METHODS:

A questionnaire based survey was sent to 162 study subjects via email and the response was recorded anonymously. The purpose of the study were explained in the email, hence the subjects agreeing to participate were assumed to be consenting for the same. Any person associated directly or indirectly to the healthcare profession were excluded from the study. All the Data collected were analysed in Microsoft excel and SPSS and appropriate statistical methods were used and the level of significance was fixed at 0.05 (p value)

RESULTS AND DISCUSSION

When considering demographics, maximum respondents 67(40.6%) were aged between 46 - 60 yrs. Then 50 (30.3%) respondents were aged between 31 – 45 yrs. 36(21.8%) samples were aged between 18 - 30 yrs. Very few 11(7.3%) respondents were aged above 60 yrs. (table 1)

Table 1: Distribution of sample according to their Age

Demographic characteristics	Frequency	Percent
Age		
18 - 30 yrs	36	21.8
31 – 45 yrs	50	30.3
46 - 60 yrs	67	40.6
60 yrs & above	12	7.3
Total	165	100

102 (61.8%) samples were Females and remaining 63 (38.2%) respondents were males. The study subjects constituted an educated population with most of respondents 79(47.9%) were graduates with 75(45.5%) respondents having a postgraduate degree. Very Few 11 (6.7%) respondents having an education of below 12th Grade.

The practice of self medication was seen in 33% of the population with 29% of the population not resorting to the practice. Interestingly 36.4% of the population opted for 'May be'. Which included subjects who have remotely used self medication or were planning to do so (fig 1)

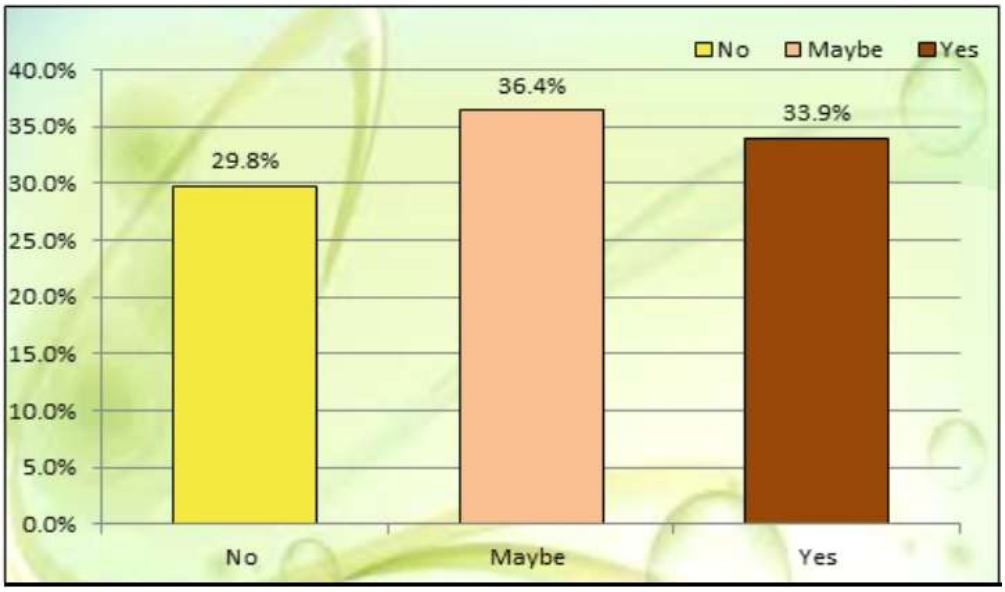

Figure 1: Assessment according to the practice of self medication

Fig 2 and Fig 3 depicts the most common Illness for which self medication was used and the type of medicine used for self medication . The responses of the samples was scored and the mean was computed from the overall score for each illness for which self medication was practiced. Accordingly the mean percentage was computed and illustrated in the table below.

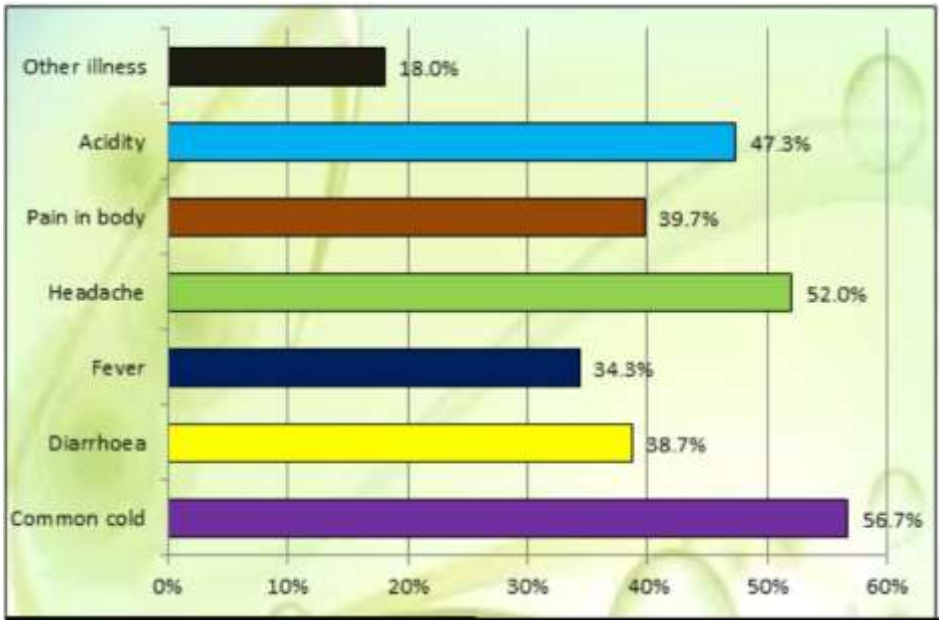

Figure 2: Assessment according to type of illness for which self medication is practiced

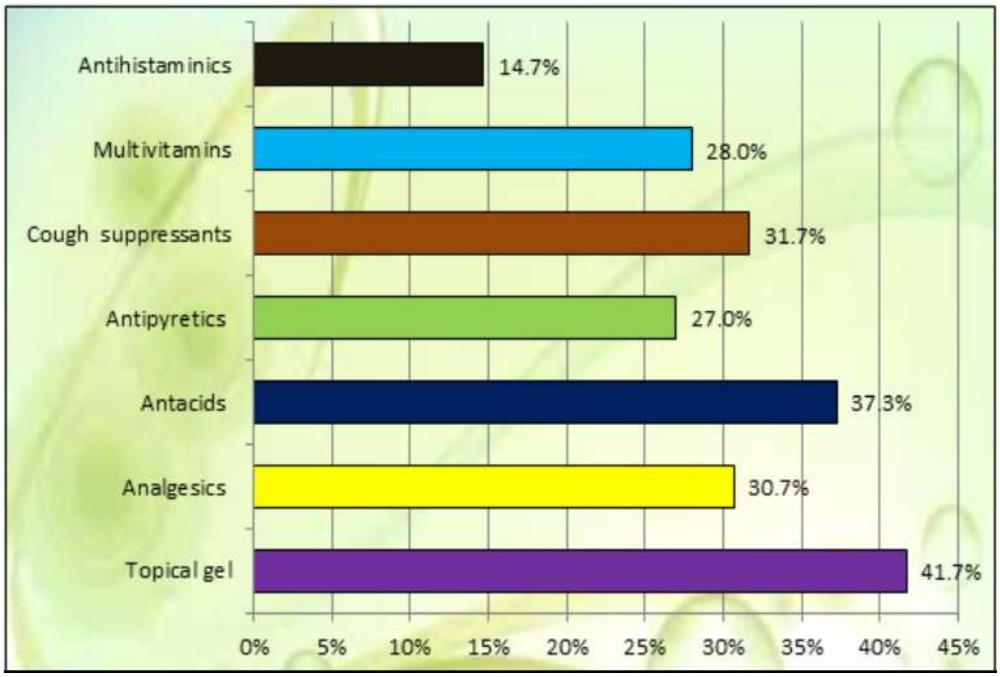

Figure 3: Assessment according to the type of medications used

As seen in table 2 Allopathy was the most common medication used which was seen in 60% of the self medication users followed by Ayurvedic (24.8%) and homeopathic (15.2%). Table 2 demonstrates the severity of illness for which self medication is used by our study population. Majority of the study population used self medication for what they perceived as mild disease (75.2%) and only a small proportion of the respondents used it for moderate to severe disease

Table 2- Assessment according to the type of medication used.

Assessment according to the type of medication used	Percent
Allopathic	60.0
Ayurvedic	24.8
Homeopathic	15.2
Total	100

Table 3 - Assessment according to the severity of illness for which self medication is done.

Assessment according to severity of illness for which self medication is done	Percent
Severe illness	3.6
Moderate illness	21.2
Mild illness	75.2
Total	100

Table 4 shows association of Practice of self medication with selected demographic variables such as Age, gender and education. The Fischer exact test was conducted to find out whether Practice of self medication is associated with selected demographic variables such as Age, gender and education. The table shows that there is no statistical significant difference between groups of demographic variables Age (*p* value = 0.094), gender (*p* value = 0.793) and

education (*p* value = 0.799) with respect to Practice of self medication .Thus Practice of self medication is independent of groups of demographic variable Age, gender and education hence not associated with them.

Table 4 - Association of practice of self medication with demographic variables Age, gender and education.

Demographic variable		Practice of self medication			Calc. Fischer value	*p* value	Whether significant at 0.05 level
		No	Maybe	Yes			
Age	18 - 30 yrs	11	18	7	10.66	0.094	No
	31 – 45 yrs	19	13	18			
	46 - 60 yrs	14	26	27			
	60 yrs & above	5	3	4			
Gender	Female	30	39	33	0.48	0.793	No
	Male	19	21	23			
Education	< 12th std	4	5	2	1.74	0.799	No
	Graduate	24	29	26			
	Post graduate	21	26	28			

DISCUSSION:

This study done on 165 subjects from predominantly urban population and who were not associated with the healthcare profession, and were analysed to determine the prevalence and pattern of self medication in them. The study had a good distribution in terms of age group with a slight majority between the ages of 40 and 60 years. The study population was found to be educated with either graduate or postgraduate degree, this could be due to the fact that the study was done in an Urban population and participation in the study required the basic knowledge of computers.

When the prevalence of self medication was assessed, about one third of the study population stated that they used some form of self medication. Interestingly, another one third of the population opted for the 'may be' option, which indicates they might have used it remotely or were planning to use it in the near future. When combined, the 2 groups constituted 70.03% of the total population, which was similar to the previous study done, where the prevalence of self medication was between 70-80%.[4-6] As per the study done by Dinesh Kumar et al[7] in the year 1995, the prevalence was 37% in the urban population. This large rise in the practice of self medication might be attributable to the lack of time to attend a health care facility as described by et al[4] in their study and also the rising cost of health care[8]. Another reason for the rising trend is due to widespread access to the internet which has lead to easy access to knowledge about the various medicines.

When the type of disorder for which self medication was practiced were analysed, Common cold, headache and acidity were stated as the top 3 medical conditions for which people self

medicated themselves. As observed these are milder condition for which a lot of over-the counter medications are available which have been approved by the healthcare agencies. It is important to educate the population regarding the red flag signs at which they have to approach a healthcare professional because delayed presentation can increase the chance of complications. Accordingly when the study subjects were questioned regarding the type of medication used, analgesic- both topical and oral, antipyretics and antacids were stated as the medication commonly used, which matches the pattern of medical condition for which the drugs were used. Since there are many different systems of medicine practiced in India, we decided to give an option between the top 3 most practiced to our study subjects. Surprisingly Allopathic was the predominant form of medication, followed by Ayurvedic and homeopathic[9]. This can be attributable to the aggressive marketing done by the Allopathic pharmaceutical companies. With the rise in the Ayurvedic and homeopathic market we should expect a rising number of self medication of these drugs. Irrespective of the system of medicine used she every doctor should be aware of the medication the patient is on, so as to prevent drug interaction with prescribed medication.

As described above, most of the usage of self medication was for mild disorders, but in the survey a small group of population (3.6%) were using self medication for severe illness, this could lead to dangerous consequences, hence it is important to identify this behaviour early. When association were calculated using Fischer exact test no statistic association was established between Age and sex, thus we can come to the conclusion that the practice is prevalent in all age group and in both the sex. When considering the educational status, our study population constituted predominantly educated group (93.3%), hence it would not be appropriate to assess the association between the practice of self medication and level of education from this study.

CONCLUSION:

Self medication has shown a rising trend in the population not associated with healthcare due to various reasons. It is important for doctors to be aware of this fact and enquiring regarding the same during patient interactions irrespective of age, sex or educational status. It is also very important to educate the general population at both and individual level and at a public level regarding safe practice of self medication.

REFERENCES:

1. Phalke VD, Phalke DB, Durgawale PM. Self-medication practices in rural Maharashtra. Indian J Community Med. 2006;31:34–5
2. Chang F, Trivedi PK, Economics of self medication: theory and evidence. Health Economics 2003; 12: 721-739.

3. Hughes CM, McElnay JC, Fleming GF: Benefits and risks of self medication. Drug Safety. 2001; 24: 1027–1037.
4. Subhashini et al. Prevalence of Self-medication Practice among People Attending Oral Health Outreach Programmes in Madurai East, Tamil Nadu Journal of Advanced Oral Research 8(1&2) 14–20
5. Pandya, Rushi N. et al. Prevalence, pattern and perceptions of self-medication in medical students. International Journal of Basic & Clinical Pharmacology, [S.l.], v. 2, n. 3, p. 275-280, jan. 2017.
6. Sharma R, Verma U, Sharma CL, Kapoor B et al. self medication among urban population of Jammu city, Indian J Pharmacol 2005; 37: 37-45.
7. Bhardwaja Dineshkumar, Thummala C. Raghuram Profile of Drug Use in Urban and
8. Rural India PhormocoEconomics 7 (4): 332·346, 1995
9. DrAK ShivaKumar et al. Financing health care for all: challenges and opportunities, The Volume 377, Issue 9766, 19–25 February 2011, Pages 668-679Lancet
10. Rohit K Verma et al Evaluation of self-medication among professional students in North India: proper statutory drug control must be implemented. Asian Journal of Pharmaceutical and Clinical Research Vol.3 Issue 1, January-March 2010