TO STUDY SELF MEDICATION HABITS AMONG PEOPLE IN NAGPUR PART OF CENTRAL INDIA

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ABSTRACT

Background: Self medication is defined as the use or intake of any medication by a Patient on his own initiative or on the advice of a Pharmacist or a lay person instead of consulting a medical practitioner. This may generate more economic benefit for patient because of saving in travel, consultation time and direct financial cost of treatment.

Objective: To study self medication habits among people in Nagpur part of central India.

Research methodology: Samples of 280 patients were selected. Data was collected via face to face structured interview of respondents using the questionnaire. The inclusion criteria for selection of patients were those came to retail pharmacy to buy OTC drugs. Each individual was given explanation about the purpose of study.

Results: An inclusion criterion to select the patient was 15 to above 60 year of age. About 89% people had a positive trust in allopathic medicines, 17% people learn self medication from doctors prescriptions provided during their prior illness. 1% were alcoholic, 6% were smokers, 61% people with chronic problems, who were considered in danger findings. Only 27% people were aware about drug interaction.

Conclusion: This descriptive study shows, the majority of population had a poor knowledge about appropriate self medication while the knowledge of the benefits and risks was not adequate. Thus to avoid or minimize the danger of self medication, there is a need to carry out educational campaign to alert population about the use of many OTC medicines available in market. Active participation of health care professionals, specially Physicians and pharmacist, pharmaceutical industry, government regulations and continuous inspection by the competent authorities is important.

Keywords: Self medication, central India, over the counter.

INTRODUCTION

According to study conducted internationally, self medication has been reported as being on the rise \[1\]. Self medication is defined as the use or intake of any medication by a Patient on his own initiative or on the advice of a Pharmacist or a lay person instead of consulting a medical practitioner. \[1\] Study said that in India 3.5 billion health problems treated annually, 27% were treated with a non prescription drug. Major problems related to self medication is wastage of resources, increased resistance of Pathogens, and serious health hazards such as adverse reaction and prolonged suffering from disease. Antimicrobial resistance is a big problem worldwide particularly in developing countries where antibiotics are often available without a prescription \[1\]. Self medication with drugs is an economical choice of treatment for common self limiting illnesses \[1\]. Responsible self medication can help, prevent and treat ailments that do not require medical consultation and reduce the
pressure on medical services for the relief of minor ailments \cite{1}. Self-medication is the treatment of common health problems with medicines especially designed and labelled for use without medical supervision and approved as safe and effective for such use \cite{1}. Medicines for self-medication are often called ‘non-prescription’ 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 (Rx products) \cite{3}. Over the counter medicine are drugs which can buy without medical supervision advice use for relieve from pain and treat disease.

While responsible self medication, which is limited to OTC drug, may generate more economic benefit because of saving in travel, consultation time and direct financial cost of treatment. Some conditions are necessary for these benefits to be realized. The main objective is to ensuring the safety of taking self medicated drugs. They includes drugs used are those indicated for conditions that are self recognizable the user should know how to take or use the drugs; the effects and possible side-effects of the drug as well as ways of monitoring these side effects. Are well communicated to the user; possible interaction with other drugs is known by the user; duration of the course of the drugs is known by the user and when the user must seek professional intervention. The consequences for incorrect diagnosis and dosage include growing resistance to some drugs. Especially in developing country professional health care is relatively expensive and readily not available therapy is a major problem. Self-medication is one of the obvious choices of health care service \cite{1}. The reasons for self-medication mentioned in the literature are mild illness, previous experience of treating similar illness, economic considerations and a lack of availability of healthcare personnel. The most common medications used for self medication are analgesics and antimicrobials Study on self medication shows that it is influenced by many factors such as education, family, society, availability of drugs and exposure to advertisements. Self medication is an area where governments and health authorities need to ensure that it is done in responsible manner, ensuring that safe drugs are made available over the counter and the consumer is given adequate information about the use of drugs and when to consult a doctor. Unlike other aspects of self care, self medication involves the use of drugs, and drugs have the potential to do good as well as cause harm. In this context, the Pharmacist has an important role \cite{1}. Today the internet is emerging as a major source of information on health issues and (with appropriate quality control) offers great promise in helping people with self-care. Now government also strict their rules related to the over the counter drugs. And this is important because it is related with health matters. It is important to take medicines correctly, and be careful when giving them to children. More medicine does not necessarily mean better. You should never take OTC medicines longer or in higher doses than the label recommends. If symptoms don't go away, it's a clear signal that it's time to see your healthcare provider.

We often take pills for common ailments like fever, colds, cough and headache, without bothering to consult a doctor. Self-medication, even for minor ailments, could lead to medical complications. A large number of potent drugs such as pain relievers, cough remedies, antiallergies, laxatives, antibiotics, antacids and vitamins are sold over-the-counter (OTC). Self-medication with OTC medicines could cause allergy, habituation, and addiction. 

**Misdiagnosing the illness** \cite{2}

A minor health issue which could be resolved easily with the doctor's advice may become a
major problem over time. Symptoms may subside temporarily with self-medication, but it would become difficult for a doctor to correctly diagnose and treat later.

**Habituation:**
One could become addicted to prescription drugs such as antacids, cough syrups and pain relievers.

**Allergic reactions:**
Some antibiotics such as penicillin or sulpha drugs can cause severe reactions in the body for some people.

**Insufficient dosage:**
Incorrect dosage of medicines will not cure and will prolong recovery. On the other hand, overdosage may damage liver, kidneys and other organs. Indiscriminate use of antibiotics: These could, over a long time, lead to antimicrobial resistance. Consequently, the antibiotic may become ineffective when taken in the future.

**Risk of stroke:**
The most commonly misused medicines are painkillers. Analgesics can induce gastritis and can also increase risk of stroke by four times in patients with high BP.

**Drug interactions:**
Some herbal drugs and medicines may cause drug-to-drug interactions and adversely affect the body.

**RESEARCH METHODOLOGY**

**Research Design:** Descriptive study for the research.

**Sampling Design:** In this project, the convenience sampling is used for the study.

**Sample Size Calculation:**
In this study the sample size was 280, the age group of customers above 15 years for the purpose of the research.

**Method of sampling:**
Best estimate of population size-28 lakhs
Rate in the population-12
Maximum acceptance difference-4 % (±)
Desired confidence level -96

**RESULTS AND DISCUSSION**
The results were based upon the data captured from 280 sample size selected by convenient sampling method. The prevalence of self medication was reported as percentages. Despite all the explanations provided 124 (44 %) were male and rest were females 159 (56%). The age distribution of respondents is shown in table of 280 patients. Approximately 44 male+41 female =85 (30%) belong to the age group of 15-25, 57male +84female =141(50 %) were in 26 – 40 years, 13male +27female =40 (15 %) were in 41-60 years, 10 male+6 female =16(5%) were in 60 & above years.

55+67=122(43%) people took advice from the drug store pharmacist or salespersons and 20 male +27 female=47 (16 %) from third parties (relative, neighbour, friend).

Most used medication were analgesics for aches and pain 72 (26 %) anti pyretic 79(28 %), followed by cough & cold symptom medication 62 (22 %) and antacids 67 (24%).

About 89% people had a positive trust in allopathic medicines, 22% people learn self medication from doctors prescriptions provided during their prior illness. 3% were alcoholic, 12% were smokers, 12% people with chronic problems, who were Considered in danger findings. Only 47% people aware about drug interaction. Most of the self medication was involved with headache and fever, cough & cold, gastrointestinal Infection, mouth ulcer & Throat infection. Respondents were using Schedule H drugs/potent drugs for minor illness.

**CONCLUSION**
This descriptive study shows, the majority of population had a poor knowledge about appropriate self-medication while the knowledge of the benefits and risks was not adequate. Thus, to avoid or minimize the dangers of self medication, need to carry out educational
companion to alert population about the use of many OTC medicines available in market. Active participation of health care professionals, specially physicians and pharmacist, pharmaceutical industry, government regulations and continuous inspection by the competent authorities is important. The government and health authorities must ensure that only safe drugs should be made available as OTC.

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I would like to express my sincere thanks to Dr. Ajay Pise, Director, Institute of Management Sciences and Research Nagpur (IMSR) who had always been there for help with technical advice whenever I encountered problems in the course of my work and guided me all throughout the term and I would like to thank all those who have helped me directly or indirectly for my work and whose names I have unknowingly missed out, in making this project a worthy endeavour.

REFERENCES
1. Rohit K Verma, Lalit Mohan, Manisha Pandey, Evaluation of self medication among professional students in North India, Vol.3 Issue 1, January-March 2010
Fig -3 Reason for self medication among the study groups

Fig 4 Medication used among the study groups

Fig 5 Selection of brand
Consider While Self Medication

- Type of medicine: 20
- Brand: 10
- Price: 29
- Indications: 82
- Adverse reactions: 139

Fig 6 Consideration while self medication

Drug obtained For Self Medication

- Community pharmacies: 61%
- Previous prescription: 37%
- Online shopping/E-pharmacies: 2%

Fig 7 Drugs obtained for self medication

followed labelled instruction

- Yes, always: 6%
- Yes, sometime: 61%
- Never: 33%

Fig 8 Whether the study group followed the label Instructions
Fig-9 Show the factors responsible for respondents for self medication

Fig-10 Shows when Respondent stopped the self medication

Fig-11 Adverse reaction of drugs among study group
Fig. 12 Shows that what was preferred for adverse reaction

Fig. 13 Shows the brands taken for Self Medication
ANNEXURE
Self-medication behaviors in people of central India (Nagpur)

Name ........................................ Age .................. Sex - Male ☐ Female ☐
Address ..................................................................................................................

Education – Graduate ☐ Post Graduation ☐ under Graduation ☐ Any Other ☐ Illiterate ☐
Occupation – Business ☐ Employee ☐ Student ☐ Any Other ☐

1) Have you ever treated yourself? (Self-Medicated)
   A) Yes ☐ B) No ☐

2) From how long you are treating yourself?
   A) 0 – 6 months ☐ C) 0-2 years ☐
   • 0-1 years ☐ D) more than two year ☐

3) What was your reason(s) of self-medication (check more than one if applicable)
   A) Cost saving ☐ B) Convenience ☐ C) Lack of trust in prescribing doctor ☐ D) Others ☐

4) Do you have any kind of self medication? For which of the following complaint(s) :- (check more than one if applicable)

<table>
<thead>
<tr>
<th>Runny nose</th>
<th>Cough</th>
<th>Sore throat</th>
<th>Fever</th>
<th>Aches and pains</th>
<th>Vomiting</th>
<th>Diarrhea</th>
<th>Skin wounds</th>
<th>Other</th>
</tr>
</thead>
</table>

5) Your selection of brand based on… (Check more than one if applicable)

<table>
<thead>
<tr>
<th>Recommendation by community pharmacists</th>
<th>Peer Group, family, friends</th>
<th>My own experience</th>
<th>Previous doctor’s prescription</th>
<th>The advertisement</th>
<th>Other</th>
</tr>
</thead>
</table>

6) What do you consider when selecting drugs? (Check more than one if applicable)

<table>
<thead>
<tr>
<th>Type of medicine</th>
<th>Brand</th>
<th>Price</th>
<th>Indications</th>
<th>Adverse reactions</th>
<th>Others</th>
</tr>
</thead>
</table>

7) Where do you usually obtain drugs for self-medication?

<table>
<thead>
<tr>
<th>Community pharmacies</th>
<th>Previous prescription</th>
<th>Online shopping/ E-pharmacies</th>
<th>Others</th>
</tr>
</thead>
</table>

8) Do you ever check the instructions come with the package insert for self-treatment?
   A. Yes, always ☐ B. Yes, sometimes ☐ C. Never ☐
9) How do you know the dosage of self treatment drugs?

<table>
<thead>
<tr>
<th>Method</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>By checking the package insert</td>
<td></td>
</tr>
<tr>
<td>By consulting a doctor</td>
<td></td>
</tr>
<tr>
<td>By consulting a Pharmacist</td>
<td></td>
</tr>
<tr>
<td>By consulting family members/friends</td>
<td></td>
</tr>
<tr>
<td>From the advertisement media</td>
<td></td>
</tr>
<tr>
<td>From the Internet</td>
<td></td>
</tr>
<tr>
<td>From my previous experience</td>
<td></td>
</tr>
<tr>
<td>By myself</td>
<td></td>
</tr>
</tbody>
</table>

10) When you stop medication? (check more than one if applicable)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>After a few days</td>
<td></td>
</tr>
<tr>
<td>After symptoms disappear</td>
<td></td>
</tr>
<tr>
<td>After the recovery</td>
<td></td>
</tr>
<tr>
<td>Completion of the course</td>
<td></td>
</tr>
<tr>
<td>After consulting a Pharmacist</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

11) Have you ever had any adverse reaction when you took drugs for self-medication?

A) Yes  □  (specify) ………………………………………………………………………………

B) No  □

12) What do you do for the adverse reactions? (Check more than one if applicable)

<table>
<thead>
<tr>
<th>Action</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stopped taking</td>
<td></td>
</tr>
<tr>
<td>Switched to another</td>
<td></td>
</tr>
<tr>
<td>Consulted pharmacy staff</td>
<td></td>
</tr>
<tr>
<td>Consulted a doctor</td>
<td></td>
</tr>
<tr>
<td>Consulted family members/friends</td>
<td></td>
</tr>
<tr>
<td>Nothing</td>
<td></td>
</tr>
</tbody>
</table>

13) a) Write down the names of medicine you have ever taken for Self Medication.

…………………………………………………………………………………………………………………………
…………………………………………………………………………………………………………………………

b) Do you think you can treat common infectious diseases with Allopathy successfully?

…………………………………………………………………………………………………………………………
…………………………………………………………………………………………………………………………

14) Are you having any addiction?

<table>
<thead>
<tr>
<th>Addiction</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td></td>
</tr>
<tr>
<td>Drugs</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

15) Have you any chronic disease? Explain.

…………………………………………………………………………………………………………………………
…………………………………………………………………………………………………………………………