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Assessment of prevalence of self-medication practices and its associated factors in Odisha, India

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***Abstract*---**Background: Self-medication is an important health issue especially in developing countries like India. The present study was conducted to assess prevalence of self-medication practices and its associated factors in Odisha, India. Materials & Methods: 160 subjects of both genders were included. Data on practice of self-medication, and reasons for use of self-medication were collected. Perception about harm caused due to self-medication, whether one is likely to use the same strategy for own use/or recommend to others in future was recorded. Responses were coded in Likert scale form and the responses were strongly disagree, disagree, agree, and strongly agree. Results: Out of 160 subjects, males were 90 and females were 70. Common symptoms for self- medication was fever in 35%, headache in 15%, abdominal pain in 12%, joint pain in 8%, common cold in 6%, allergy in 5%, diarrhea in 12% and sore throat in 7%. The difference was significant (P< 0.05). Method of procurement for self-medication was previous prescription in 56%, remembering the name of drug in 20%, stored drugs at home in 10% and telling the symptoms to pharmacists in 14%. The difference was significant (P< 0.05). Conclusion: The most common symptoms for self- medication was fever. Method of procurement for self-medication was previous prescription and remembering the name of drug.

***Keywords*---**self- medication, fever, procurement.

Introduction

Self-medication is an important health issue especially in developing countries like India. In developing countries, where universal access to health care is yet to be achieved, self-medication is one of the common and preferred.[1] 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.[2] Worldwide, over the counter drugs or "non-prescription drugs" are used in the practice of responsible self-medication, and are generally considered to be safe and effective.[3] However, a pitfall in this practice of responsible self-medication, especially in India is that prescription drugs are also commonly dispensed without valid prescriptions. Such practice poses many medical and social challenges with widespread implications.[4] Wrong self-diagnosis leading to delayed treatment, unnecessary out of pocket expenditure, adverse drug reactions due to incorrect dosage, drug drug interactions, incorrect route of administration, and drug dependence are some of the well-recognized drawbacks of self-medication.[5] There is always a risk of interaction between active ingredients of OTC drugs and prescription medicines, which may worsen the existing disease pathology or create new ones. Analgesics, antipyretics, anti-inflammatory agents, cough and cold preparations are amongst the commonly practiced self-medications.[6,7] The present study was conducted to assess prevalence of self-medication practices and its associated factors in Odisha, India.

Materials & Methods

This cross-sectional study was done in urban Bolangir, which comprised of 160 subjects of both genders. The written consent was obtained from all subjects. Data such as name, age, gender etc. was recorded. Data on practice of self-medication, and reasons for use of self-medication were collected. Perception about harm caused due to self-medication, whether one is likely to use the same strategy for own use/or recommend to others in future was recorded. Responses were coded in Likert scale form and the responses were strongly disagree, disagree, agree, and strongly agree. During analysis, strongly disagree and disagree were compiled under one group. The same process was followed for agree and strongly agree. P value less than 0.05 was considered significant.

Results

Table I Distribution of subjects

Total- 160		
Gender	Males	Females
Number	90	70

Table I shows that out of 160 subjects, males were 90 and females were 70.

Table II Symptoms for self-medication

Symptoms	Percentage	P value
Fever	35%	0.04
Headache	15%	
Abdominal pain	12%	
Joint pain	8%	
Common cold	6%	
Allergy	5%	
Diarrhea	12%	
Sore throat	7%	

Table II, graph I shows that common symptoms for self- medication was fever in 35%, headache in 15%, abdominal pain in 12%, joint pain in 8%, common cold in 6%, allergy in 5%, diarrhea in 12% and sore throat in 7%. The difference was significant (P< 0.05).

Graph I Symptoms for self-medication

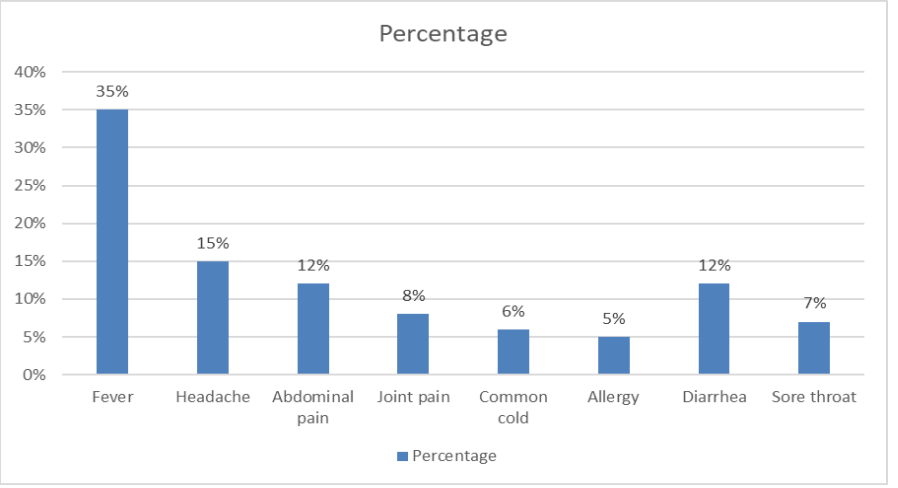

Table III Method of procurement for self-medication

Therapy	Percentage	P value
Previous prescription	56%	0.02
Remembering the name of drug	20%	
Stored drugs at home	10%	
Telling the symptoms to pharmacists	14%	

Table III shows that method of procurement for self-medication was previous prescription in 56%, remembering the name of drug in 20%, stored drugs at home in 10% and telling the symptoms to pharmacists in 14%. The difference was significant (P< 0.05).

Discussion

Self-medication includes the usage of therapeutic products by people to treat self-recognized illnesses/indications. It also denotes the intermittent/constant use of a medication prescribed by a physician for lasting or repeated illnesses/indications.[8,9] Self- medication includes obtaining medicines without a prescription; resubmitting old prescriptions to secure new ones; sharing medicines with friends, family members/relatives; or consuming remaining medicines kept at home.[2] Risk of drug dependency and abuse are also associated with self-medication.[10] Others may also include inadequate dosage, excessive prolonged drug use and double medication as individuals could not be able to identify that same drug has already been taken with another brand name which may lead to serious consequences.[11] Unjustified and absurd self-medication consequence is the wastage of healthcare resources and may also lead to hospital admissions.[12,13] The present study was conducted to assess prevalence of self-medication practices and its associated factors in Odisha, India.

We found that out of 160 subjects, males were 90 and females were 70. Selvaraj et al[14] aimed to find the prevalence of self- medication for allopathic drugs and associated factors among households of urban community. A total of 352 subjects from 124 households were selected by random sampling. With pretested interview schedule, information regarding self-medication use in the past three months and associated sociodemographic factors, purpose, source of drug procurement, attitude toward self-medication use were collected. Prevalence of self-medication was found to be 11.9%. Males, age >40 years and involving in moderate level activity of occupation, were found to be significantly associated with higher self-medication usage ($P < 0.05$). Fever (31%), headache (19%), and abdominal pain (16.7%) are most common illnesses where self-medication is being used. Telling the symptoms to pharmacist (38.1%) was the commonest method adopted to procure drugs by the users. Majority of the self-medication users expressed that self-medication is harmless (66.6%) and they are going to use (90%) and advice others also (73.8%) to use self-medication drugs.

We observed that common symptoms for self- medication was fever in 35%, headache in 15%, abdominal pain in 12%, joint pain in 8%, common cold in 6%, allergy in 5%, diarrhea in 12% and sore throat in 7%. We found that method of procurement for self-medication was previous prescription in 56%, remembering the name of drug in 20%, stored drugs at home in 10% and telling the symptoms to pharmacists in 14%. Kumar et al[15] found that the prevalence of self-medication remained high in both 2007 and 2012 (74.6% and 69.4%), although no significant difference was observed between the two phases ($P = 0.14\%$). Oral antibacterial agents, oral anti-inflammatory agents, and antipyretics were the most common group of drugs used in both phases of study. A significant increase was observed in number of students who took complete course of oral antibiotics (28.3-38.3%, $P = 0.01$).

Sharma et al[16] found that self-medication was more among respondents who had less than higher secondary education compared with respondents completed more than higher secondary. The commonest method of procuring drug was

found to be recalling the names from previous prescriptions. This again confirms the findings of higher prevalence of self-medication among educated.

Gohar et al[17] in their study 400 parents were randomly selected and interviewed. It was observed that self-medication prevalence in children by their parents was 77.25% with male and female ratio 49% and 51%. Self-medication awareness was 66% among total parents and this practice was more in children of age 1-5 years i.e., 47%. Most common conditions for self-medication were fever, cough, flu, vomiting, diarrhoea and allergies. Frequently used drug groups include antipyretics, cough and cold preparation, antimicrobials, antiemetics and antiallergy. It was also observed that 45% of parents practiced self-medication 3-4 times per year and the main reasons behind this practice were perception of illness, previous experience, lack of time, financial constraint and leftover medicines. The shortcoming of the study is small sample size.

Conclusion

Authors found that the most common symptoms for self- medication was fever. Method of procurement for self-medication was previous prescription and remembering the name of drug.

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