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A Study on Practices of Self-Medication among Slum Population of an Urban City, India

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Abstract:

Introduction: In developing countries like India most episodes of illnesses are treated by self- medication because of easy availability of over-the-counter drugs. Due to paucity of data in this region, the study was planned with the objectives: to find out the prevalence of self -medication among the study participants, to probe for reasons of self-medication, and to study the relative factors associated with it.

Methods: A community-based cross-sectional study was conducted in the field-practice area of Urban Health and Training Centre, Kalinga Institute of Medical Sciences, KIIT University from February 2016 to May 2016.A pretested questionnaire was used after written consent. Data was analyzed using Epi-Info Software Version 3.5.4.

Results: A total of 110 participants were included in the study. Maximum (77.6%) said they practiced self-medication. Most of them (76.5%) preferred allopathic medicines. 55.32% checked the expiry date before consuming.

52% of them agreed that they suggested the same medications to their family members, when needed. Fever and pain were the most common conditions (63.8%) in which people used self-medications followed by allergic conditions (29.7%). Most common reason for self-medication cited by them were already known remedy (66.6%), followed by not having enough time to go to the physician (19%) and high fee of doctors (14.29%).

As high as 68 % of the participants believed self-medication to be effective, and about 45.6 % preferred one particular brand.53.3% of them correctly answered what antibiotics were. 47% of the participants thought that higher doses of drugs helped in faster recovery and 71% thought that intravenous drugs were better than oral ones.

Conclusion: Considering the relatively high rates of self-medication (77.6%) among the sampled urban people, there is a need for increasing awareness among them about the adverse effects, importance of dosage, possible harms, drug interactions associated with self - medication.

Keywords: Awareness, Cross-sectional, Practices, Self-medication.

1. Introduction

Self-medication is the selection and use of medicines by individuals to treat self-recognized illnesses or symptoms.[1] It is regarded by the World Health Organization (WHO) as being part of self - care. It is said that one is taking self-medication when the individual uses products that are approved and available without the need of medical prescription.

In developing countries like India most episodes of illnesses are treated by self-medication, due to the easy availability of over-the-counter (OTC) drugs.

Self-medication has serious social, economic and health consequences. It includes using herbal or other medications,[2] left over medicines at home, previously prescribed medicines for similar cases,[3] or not using medicine at all (self- diagnosis).[4] Various studies in other countries have reported a high prevalence of self-medication e.g. Nepal, Iran & Ethiopia, and have been reported to be 59, 76.6%, 43.2 respectively.[5,6,7] On the other hand in India the prevalence varies (71% in Puducherry, 92.8% in Delhi, and 69.6%% in Barabanki) [8,9,10]

According to FDA(Food and drug administration) and WSMI(World self-medication industry) guidelines,[11,12] OTC drugs must be safe, reliable, effective, easy to use, and convenient, and only non-prescription OTC drugs should be used through self-medication.

In India, situation is different due to pharmacies which unethically advice and sell drugs without prescription. People have a tendency to go to the pharmacy instead of going to a physician to save time and money.[13] In general, majority of the people (85.5%) are unaware of the dangers of using the medications and its side-effects, [14] which poses a great risk to the health of the community.

The reasons behind people taking self-medication in India are high fees of doctors, lack of time, lack of knowledge and above all the easy availability of OTC drugs. [4, 10,] People use their previous prescriptions for their present health needs. [4,9,10] People also advice their family and friends to take medicines because they think they already know the remedy and there is no need of a doctor, [9,10] which actually should not be practiced. There is definitely a lack of knowledge about the diseases and the medicines and also some false beliefs and practices, like high doses result in faster recoveries etc , which clearly show the need of awareness about the drugs, doses, side effects and adverse effects.

The prevalence of self-medication varies from country to country as well as in different socioeconomic classes, and very few studies are there regarding these in India. We do not have studies from Odisha, and studies in the slums of a city like Bhubaneswar, have not been undertaken previously.

Hence there was definitely a need of such study to know the self-medication practices of people and the factors affecting these as well as their knowledge about the drugs ,side effects , doses and indications. This study aimed to assess the prevalence of self-medication among the people; to probe for reasons of self-medication among them, and to study the relative factors associated with it.

2. Materials and Methods:

Bhubaneswar is an urban city & the capital of the state of Odisha; has about 436 slums with a population of 3, 01, 611 and 80,665 slum households. This study was done in the field practice area of the Urban Health and Training Centre [UHTC] of Kalinga Institute of Medical Sciences [KIMS], Bhubaneswar, which caters to a population of around 12,152 with 3250 households. Taking the prevalence of self-medication of 55.92% from a previous study, [13] precision of 10% and non-response of 10%, a sample size of 110 was determined.

All the adults who were above 18 years of age residing in the catchment area of field practice area of UHTC for more than 1 year, and those who gave informed written consent to participate in the study were included. Persons having any serious terminal illness, pregnant women, those who were not willing to participate in the study &

did not give consent and those who were mentally incapacitated were excluded.

The study period was from February to May,2016. Convenience sampling method was used. Data collection was done by a researcher made self-medication questionnaire.

The study tool had three parts, Part 1 dealt with the socio-demographic profile of the participants like age, sex, education and monthly income, Part 2 was used to know the reasons for self-medication and the common ailments against which it is practiced, and Part 3 was focused upon the basic knowledge of the individuals about the drugs, side-effects and doses.

Data entered into Microsoft excel worksheet and analyzed using EpiInfo software version 3.5.4. Chi-square test was used to identify the associations by taking a p value < 0.05 as significant. Prior approval from the Institutional Ethics Committee was taken before the initiation of the study.

Demographic characteristics	**Self medication**		**p-value**
	Yes(n=85)	**No(n=25)**	
SEX			
Male	**34(40%)**	**8(32%)**	**p = 0.624**
Female	**51(60%)**	**17(68%)**	
*** *x2* = 0.24**	**df=1**		
AGE GROUP (in yrs)			
18-25	**28(32.94%)**	**9(36.0%)**	
26-35	**23(27.06%)**	**2(8.0%)**	**p = 0.012**
36-45	**6(7.06%)**	**6(24.0%)**	
46-55	**9(10.58%)**	**6(24.0%)**	
>55	**19(22.36%)**	**2(8.0%)**	
*** *x2*=12.86**	**df=4**		
EDUCATION			
Illiterate	**6(7.06%)**	**6(24.0%)**	**p = 0.0007**
Primary	**10(11.76%)**	**9(36.0%)**	
Secondary	**4(4.71%)**	**2(8.0%)**	
Higher secondary	**15(17.65%)**	**4(16%)**	
Graduate	**50(58.82%)**	**4(16%)**	
*** *x2*=19.28**	**df=4**		

3. Results

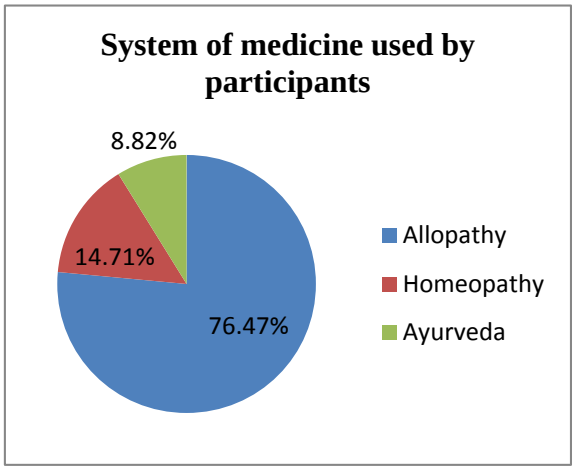
A total of 110 participants were included in the study of which 77.6% said they practiced self-medication. Majority

of them were females (60%) and from the younger age group.58.82% of the people taking self–medication were graduates (Table-1).

Table 1: Demographic characteristics of respondents

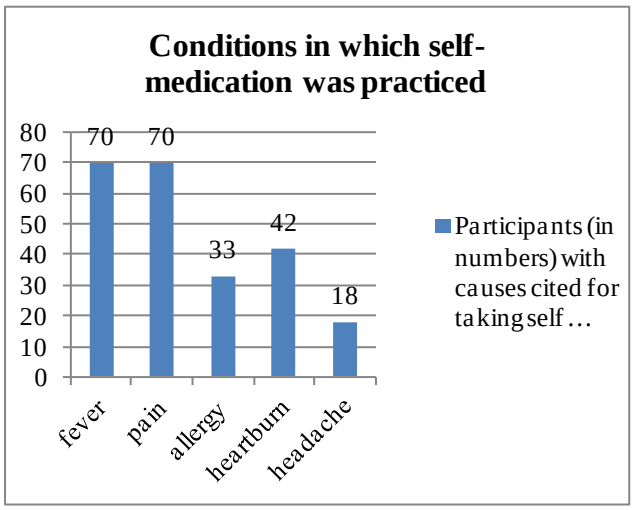
76.5% of them preferred allopathic medicines (Fig-1). 55.32% said they checked the expiry date regularly and 25.5% never checked at all. 52% of the participants said they prescribed the same medications to their family members.

Fig -1: System of Medicine used by Participants.



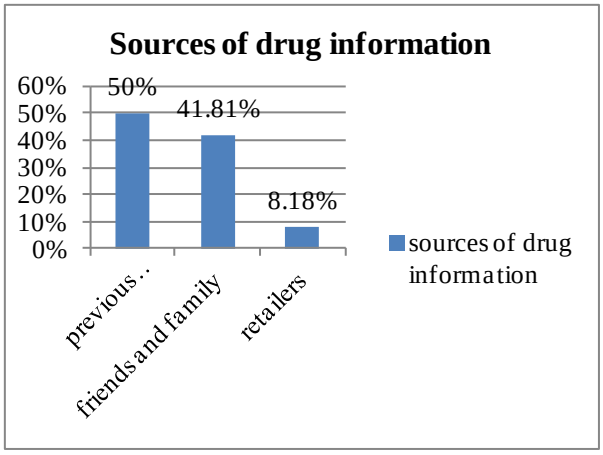
Fever and pain were the most common conditions (63.8%) in which people used self-medication followed by allergic conditions (29.7%) and acidity (17%) [Fig -2].

Fig -2: Conditions in which self-medication was practiced



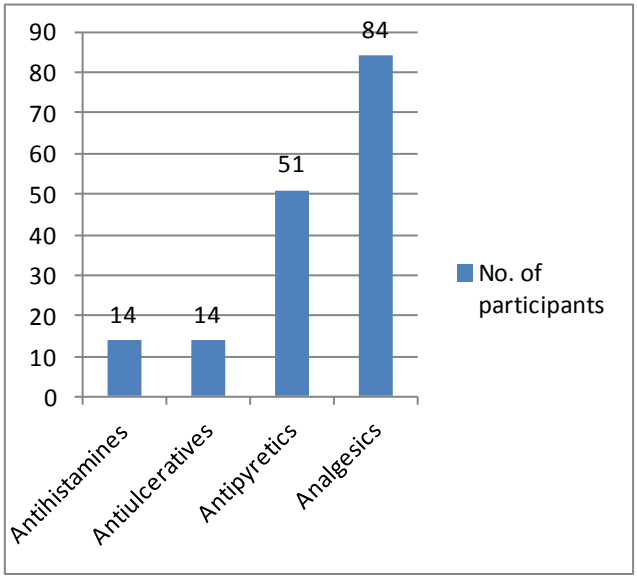
Most common reason for self-medication was already known remedy (66.6%) followed by not enough time (19%) and high fee of doctors (14.29%).68 % of the participants believed self-medication to be effective, and 45.6 % of the participants preferred one particular brand. 53.3% of the participants correctly answered what antibiotics were. Nearly half of the participants agreed that "previous prescriptions" were used as a source of information for self-medication [Fig: 3]

Fig- 3: Sources of drug information



Analgesics were the most commonly used medicines, followed by antipyretics [Fig: 4]

Fig-4: Commonly taken Drugs



The second part of the questionnaire focused upon the basic knowledge about the drugs and showed that 53.3% of the participants correctly answered what antibiotics are. Around 47% of the participants thought that higher doses of drugs result in faster recovery. 71% answered that intravenous drugs were better than oral ones. A good number of participants correctly answered about the adverse effects of antibiotics, pain killers and cough syrup.

4. Discussion

In this study, the prevalence of self-medication among the people from the urban slums of the field practice area of KIMS, Bhubaneswar was found to be 77.6% which was almost in accordance with the studies done in Karachi (76%), Barabanki (69.6%) and Medak (83.3%).[3,10,15] However the study done in Nepal (59%) and Mumbai(55.92%),[5,13,] show quite less prevalence. This variation may be because Nepal is a different country, and the prevalence may depend on the different socioeconomic and cultural backgrounds as well as because of different demographic characteristics.

Fever and Pain were the most common conditions (63.8%) in which people used self-medication followed by allergic conditions (29.7%) and acidity (17%) in the present study, Kumar V et al [9] found cold (61.6%) to be the main condition. Analgesics (41.5%), were the most common medications taken without the prescription, similar findings were there in studies by Gupta P et al (Mumbai),and Keshari S S et al .[13,10]The high consumption of analgesics and anti-allergic drugs may be because these drugs are available easily over the counter and people have some knowledge about these drugs from previous prescriptions and family and friends. Certainty about the safety and efficacy of self-medication and prior experience about the drug were the main reasons for self-medication. Similar studies show prior experience about the drug and high consultation fee to be the main reasons for self-medication.[3,10,13] This wrong attitude and belief among the general mass is leading towards these malpractices; measures such as supervision over pharmacy shops and strict laws against the over the counter drugs is required to change the current scenario.

Present study also revealed that self-medication was higher in women than in men, which is in accordance with the results of studies like Gupta P et al.[13] More self-medication practices among women may be because they usually seek more medical attention than men and because of common ailments and more exposure to cough and cold due to household works as compared to the men.

Our results suggested that self-medication was significantly higher among the graduates (58.82%) compared to those with primary education (11.76%) and illiterate (7.06%) ones. Greater level of self- medication among the educated people was reported also in other studies .[9,16] It seems that the educated people, have a wrong belief that they can get all the needed information from medicine brochures, previous prescriptions, or internet, therefore, they diagnose their sickness and practice self-medication using this information.

The use of self-medication was significantly higher in the younger age group (18-25 years-32.94%) followed by 26-35 years -27.06%. It was lowest in 36-45 years age group (7.06%) and was again higher in >55 years age group (22.36%).similar findings were found in study done by Kumar V et al , Bertoldi A D et al.[9,17] The difference in different age groups may be because the young are more exposed to the use of internet and have more time searching and seeking information about drugs as compared to the middle age group (36-45yrs) which lacks time mainly because of jobs and other responsibilities. Again the use is higher in those above 55 years age group may be because of the habit of the elderly keeping the old

medicines with them as well as the brochures and prescriptions.

5. Conclusion

The prevalence of self-medication was high among the slum participants. Also it was highest in the educated group as compared to the illiterate group. The most common factors were previous prescriptions, lack of time and high fees of doctors. The most common ailments against which self-medication are being practiced were fever and pain followed by allergic conditions. Participants had a fair knowledge about common drugs and their side effects; still they were unaware of the contraindications and safety of the drugs. Taking the high prevalence into the account it seems necessary to design and implement some awareness programs about the safety, contraindications and dangers of self-medication as well as there is a need for some strict laws against over the counter drugs ; and pharmacies which are involved must be checked and monitored regularly.

Limitations: The study was not designed to assess the side effects or adverse effects of self-medication, hence it was not possible to find those. Also the participant's knowledge was difficult to assess because the questionnaire only dealt with very common drugs and side effects.

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