

# A study of patterns of self medication practices at urban area of Muzzafarpur, Bihar

Ravindar Prasad<sup>1\*</sup>, Prabhas Kumar<sup>2</sup>, Prabhat Kumar Lal<sup>3</sup>, Hemant Kumar<sup>4</sup>

<sup>1</sup>Assistant Professor, Department of Community Medicine, Sri Krishna Medical College, Muzaffarpur, Bihar, INDIA.

<sup>2,3</sup>Assistant Professor, <sup>4</sup>Tutor, Department of community Medicine, Darbahnaga Medical College, Laheriasarai, Bihar, INDIA.

Email: [dr.hemu71@gmail.com](mailto:dr.hemu71@gmail.com)

## Abstract

**Background:** Self-medication has been defined as obtaining and consuming one (or more) drug (s) without the advice of a physician either for diagnosis, prescription or surveillance of the treatment. **Aims and Objectives:** To study patterns of Self medication practices at urban area. **Methodology:** This was a cross-sectional study carried out at the urban field practice area attached to tertiary teaching hospital for the study of pattern of self-medications in the past one year i.e. January 2016 to January 2017 in 164 individuals of the 30 families. Data entered to xl-sheets and analysis done were percentages and proportions. **Result:** In our study we have found that The overall prevalence of self-medication was 82.10%, the most common age group was 20-30 i.e. 26.92% followed by 30-40 were 25.00%. 0-10 were 16.03%, 10-20 were 13.46%, 50-60 were 10.90%, >60 were 7.69%. The majority of the patients were Male i.e. 58.97% and Females were 41.03%. The most common source of information was Recommended by pharmacist-80%, Opinions of family members were 75%, Opinion of friends were 70%, Advertisement in 65%, Own experience - in 50%, Doctor's old prescription -45%. The most Common ailment for self-medication was Common cold in 92%, followed by Fever in 85%, Headache in 82%, Generalized body ache -80%, Joint pains -79%, Abdominal pain in 65%, Loose motion, 56%, Skin wounds in 45%, Lost of sleep in 43%. The most common medicines that were self-medicated were Paracetamol-97%, Cetirizine-90%, Antibiotics-87%, Cough syrups -84%, B-complex -82%, Diclofenac -80%, Ranitidine-78%, Dicyclomine hydrochloride -74%, Steroids-69%, Tranquilizers-56%. **Conclusion:** It can be concluded from our study that the prevalence of self medication was very high specially in the young population and most common source of it was pharmacists of pharma shops so the awareness regarding the hazards of it should be done vigorously and the stringent actions should be taken against distributing medicines without prescription of doctor and also the list of medicine which is allowed for over the counter medicine should displayed at each pharma shop.

**Key Word:** Self-medication, Over the counter medicines, drug resistance, adverse drug reaction.

## \* Address for Correspondence:

Dr. Ravindar Prasad, Assistant Professor, Department of Community Medicine, Sri Krishna Medical College, Muzaffarpur, Bihar, INDIA.

Email: [dr.hemu71@gmail.com](mailto:dr.hemu71@gmail.com)

Received Date: 19/11/2017 Revised Date: 22/12/2017 Accepted Date: 05/01/2018

DOI: <https://doi.org/10.26611/1004515>

Access this article online	
Quick Response Code:	Website: <a href="http://www.medpulse.in">www.medpulse.in</a>
	DOI: 19 January 2017

## INTRODUCTION

Self-medication has been defined as obtaining and consuming one (or more) drug (s) without the advice of a physician either for diagnosis, prescription or surveillance

of the treatment.<sup>1</sup> It can also be defined as the consumption of non-prescription medicines by people on their own initiative.<sup>2</sup> Easy availability of a wide range of drugs and inadequate and inequitable health services result in increased proportions of drugs to be used as self-medication in developing countries like India.<sup>3</sup> The WHO Expert Committee on National Drug policies in 1995 stated that Self-medications is widely practiced in both developed and developing countries. Medications may be approved by the national drug regulatory authority as being safe for self-medication. These medicines are normally practiced for the prevention or treatment of minor ailments or symptoms, which usually do not justify medical consultation. In some chronic or recurring illnesses, self-medication is possible with the doctor retaining an advisory role after initial diagnosis and

prescription.<sup>4</sup> Self-medication is an important health issue especially in developing countries like India.<sup>5,6</sup> In developing countries, where universal access to health care is yet to be achieved, self-medication is one of the common and preferred modes resorted by the patients. Various studies reported that self-medication may lead to delay in care seeking which results in paradoxical economic loss due to delay in the diagnosis of underlying conditions and appropriate treatment. Also, self-medication can lead to interaction between drugs which would be prevented, had the patient sought care from a licensed medical practitioner. Practicing self-medication for drugs like antibiotics might lead to drug resistance; and hence, there needs to be a check on these practices.<sup>7-9</sup> As per drug laws applicable to India, self-medication are permitted for over-the-counter (OTC) drugs, but in India there is no specific list of OTC drugs. The OTC Committee of the Organization of Pharmaceutical Producers of India is working toward the promotion of responsible self-medication and creating awareness in the general public as well as the government.<sup>10</sup> Self-medication in modern pharmaceuticals seems to be a field in which information is scarce and only a very little information has been available about self-medication and its major determinants, especially in developing countries.<sup>11</sup> So, this study is carried out see the pattern of self medication in urban area.

### MATERIAL AND METHODS

This was a cross-sectional study carried out at the urban field practice area attached to tertiary teaching hospital for the study of pattern of self-medications in the past one year i.e. January 2016 to January 2017. Prevalence of self-medication considered to be 71 %<sup>13</sup>, the sample size calculated by the following formula,

$$S = \frac{4pq}{t^2},$$

the sample size calculated by this formula was 164, so the 30 families in the urban field practice area to fulfil the sample were randomly selected and head of the family was interviewed, the patterns of self-medication each family members was asked in details. The total individuals taken in our study were 190. The head of the family was asked and examined various records related to self-medications i.e. information received, Common ailment for self-medication medications required. Data entered to xl-sheets and analysis done were percentages and proportions.

### RESULT

**Table 1:** Age wise distribution of the patients

Age group	No.	Percentage (%)	No.	Percentage (%)
0-10	31	16.32	25	16.03
10-20	29	15.26	21	13.46
20-30	43	22.63	42	26.92
30-40	47	24.74	39	25.00
50-60	23	12.11	17	10.90
>60	17	8.95	12	7.69
<b>Total</b>	<b>190</b>	<b>100.00</b>	<b>156</b>	<b>100.00</b>

The overall prevalence of self-medication was 82.10%, the most common age group was 20-30 i.e. 26.92% followed by 30-40 were 25.00%. 0-10 were 16.03%, 10-20 were 13.46%, 50-60 were 10.90%, >60 were 7.69%.

**Table 2:** Distribution of the patients as per the sex

Sex	No.	Percentage (%)
Male	92	58.97
Female	64	41.03
<b>Total</b>	<b>156</b>	<b>100.00</b>

The majority of the patients were Male i.e. 58.97% and Females were 41.03%.

**Table 3:** Distribution of the patients as per the information received

Information	No.	Percentage (%)
Recommended by pharmacist	125	80%
Opinions of family members	117	75%
Opinion of friends	109	70%
Advertisement	101	65%
Own experience	78	50%
Doctor's old prescription	70	45%

The most common source of information was Recommended by pharmacist-80%, Opinions of family members were 75%, Opinion of friends were 70%, Advertisement in 65%, Own experience - in 50%, Doctor's old prescription -45%.

**Table 4:** Distribution of the patients as per the Common ailment for self-medication

Ailment	No.	Percentage (%)
Common cold	144	92%
Fever	133	85%
Headache	128	82%
Generalized body ache	125	80%
Joint pains	123	79%
Abdominal pain	101	65%
Loose motion	87	56%
Skin wounds	70	45%
Lost of sleep	67	43%

The most Common ailment for self-medication was Common cold in 92%, followed by Fever in 85%, Headache in 82%, Generalized body ache -80%, Joint pains -79%, Abdominal pain in 65%, Loose motion, 56%, Skin wounds in 45%, Lost of sleep in 43%.

**Table 5:** Distribution of the patients as per the medications required

Medicines	No.	Percentage (%)
Paracetamol	151	97%
Cetirizine	140	90%
Antibiotics	136	87%
Cough syrups	131	84%
B-complex	128	82%
Diclofenac	125	80%
Ranitidine	122	78%
Dicyclomine hydrochloride	115	74%
Steroids	108	69%
Tranquilizers	87	56%

The most common medicines that were self-medicated were Paracetamol-97%, Cetirizine-90% Antibiotics-87%, Cough syrups -84%, B-complex -82%, Diclofenac -80%, Ranitidine-78%, Dicyclomine hydrochloride -74%, Steroids-69%, Tranquilizers-56%.

## DISCUSSION

It has been recognized that inappropriate and uncontrolled self-medication results in increases resistance of pathogens, wastage of resources, and serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence. On the other hand, if done appropriately, self-medication can save the time spent in waiting to consult a doctor, can readily relieve acute medical problems and emergencies, may be economical and can even save lives in acute conditions. It is now accepted that self-care in the form of appropriate self-medication can be beneficial for patients, community, healthcare providers, the pharmaceutical industry and governments. However, it is worth noting that self-medication must be accompanied by appropriate health information.<sup>12</sup> In our study we have found that The overall prevalence of self-medication was 82.10%, the most common age group was 20-30 i.e. 26.92% followed by 30-40 were 25.00%. 0-10 were 16.03%, 10-20 were 13.46%, 50-60 were 10.90%, >60 were 7.69%. The majority of the patients were Male i.e. 58.97% and Females were 41.03%. The most common source of information was Recommended by pharmacist-80%, Opinions of family members were 75%, Opinion of friends were 70%, Advertisement in 65%, Own experience - in 50%, Doctor's old prescription -45%. The most Common ailment for self-medication was Common cold in 92%, followed by Fever in 85%, Headache in 82%, Generalized body ache -80%, Joint pains -79%, Abdominal pain in 65%, Loose motion, 56%, Skin wounds in 45%, Lost of sleep in 43%. The most common medicines that were self-medicated were Paracetamol-97%, Cetirizine-90%, Antibiotics-87%, Cough syrups -84%, B-complex -82%, Diclofenac -80%, Ranitidine-78%, Dicyclomine hydrochloride -74%, Steroids-69%,

Tranquilizers-56%. This study is in accordance with Varun Kumar *et al*<sup>14</sup> they found that the prevalence of self-medication was 92.8% (95 confidence interval: 66.5-79.4). 74.9% preferred allopathic medicines. Self-medication was found to be practiced more among younger persons than older age group persons. Common cold (61.6%) and fever (51.8%) were the most common ailments for which self-medication were practiced. Paracetamol and cough syrups were the most commonly used class of drugs. Also Kalaiselvi Selvaraj<sup>15</sup> they found 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. The less prevalence as compared our study may be due to variable study population and variable awareness regarding the self-medicines and availability of doctors.

## CONCLUSION

It can be concluded from our study that the prevalence of self medication is very high specially in the young population and most common source of it is pharmacists of pharma shops so the awareness regarding the hazards of it should be done vigorously and the stringent actions should be taken against distributing medicines without prescription of doctor and also the list of medicine which is allowed for over the counter medicine should displayed at each pharma shop.

## REFERENCES

1. Montastruc JL, Bagheri H, Geraud T, Lapeyre-Mestre M. Pharmacovigilance of self-medication;Therapie. 1997 Mar-Apr;52(2):105-10.
2. Jamison AJ, Kielgast PJ, Hoek AJM, Reinstein JA. Responsible Self- Medication: Joint Statement by the International Pharmaceutical Federation and World SelfMedication Industry. 1999;16.
3. Shankar PR, Partha P, Shenoy N. Self-medication and non-doctor prescription practices in Pokhara valley, Western Nepal; a questionnaire based study. BMC Fam Pract2002;3:17.
4. World Health Organization (WHO). Contribution to updating the WHO Guideline for Developing National Drug Policies. Report of a WHO Expert committee meeting, 19-24 June 1995.

5. Greenhalgh T. Drug prescription and self-medication in India: An exploratory survey. *Soc Sci Med* 1987;25:307-18.
6. Deshpande SG, Tiwari R. Self medication: A growing concern. *Indian J Med Sci* 1997;51:93-6.
7. Hughes CM, McElnay JC, Fleming GF. Benefits and risks of self medication. *Drug Saf* 2001;24:1027-37.
8. Regional Strategy on Prevention and Containment of Antimicrobial Resistance, 2010-2015. Available from: [http://www.searo.who.int/entity/antimicrobial\\_resistance/BCT\\_hlm-407.pdf](http://www.searo.who.int/entity/antimicrobial_resistance/BCT_hlm-407.pdf) [Last accessed on 2013 Jun 24].
9. Ganguly NK, Arora NK, Chandy SJ, Fairoze MN, Gill JP, Gupta U, et al. Global antibiotic resistance partnership (GARP): India Working Group. Rationalizing antibiotic use to limit antibiotic resistance in India. *Indian J Med Res* 2011;134:281-94.
10. Organization of Pharmaceutical Producers of India (OPPI). Available from: <http://www.indiaoppi.com>
11. World Health Organization. The use of essential drugs. *World Health Organ Tech Rep Ser* 1983;685:44-5.
12. Gupta P, Bobhate P S, Shrivastava S R. Determinants of Self Medication Practices in an Urban Slum Community. *Asian J Pharm Clin* 2011;4(3):54-7.
13. Balmurugan E, Ganesh K. Prevalence of self-medication use in coastal regions of South India. *Br J Med Pract* 2011;4:a428.
14. Kumar V, Mangal A, Yadav G, Raut D, Singh S. Prevalence and pattern of self-medication practices in an urban area of Delhi, India. *Med J DY Patil Univ* 2015;8:16-20.
15. Kalaiselvi Selvaraj, Ganesh Kumar S., Archana Ramalingam. Prevalence of self-medication practices and its associated factors in Urban Puducherry, India. *Perspectives in Clinical Research*. January-March 2014; 5(1): 32-36.

Source of Support: None Declared  
Conflict of Interest: None Declared

