

A Prospective Study of Self- Medication Pattern among Children

Dr.Shreshtha .B. R, Dr. Sathya Praveen Reddy*, Dr.V .Y. Kshirsagar

Department of Paediatrics,Krishna Institute of Medical Sciences deemed to be University,
Karad, Maharashtra, India

Corresponding author: Dr. Sathya Praveen Reddy, Email:praveen.kesarik.s.p.r@gmail.com

ABSTRACT

Background:Analgesics,antipyretics, anti-inflammatory agents, cough and cold preparations areamongst the commonly practiced self-medications. The concept of self-medication involves the use of medicines for curative purposes but without professional advice. The present study was conducted to assess pattern of self- medication among children.

Materials & Methods:The present study consisted of 90 children age ranged 12- 18 years of both genders. Parental consent was taken of all children. Data pertaining to children such as name, age, gender etc. was recorded. The questionnaire used consisted of information such as medicines usedto treat illness and reasons for self-medication, type of medication used and type of therapy preferred.

Results: Out of 90 children, boys were 40 and girls were 50. Drugs were antipyretics in 42%, topical preparations in 4%, analgesics in 20%, antimicrobials in 11%, cough & cold preparations in 20% and antiallergy in 4%. The difference was significant ($P < 0.05$). Therapy used was allopathy in 56%, herbal in 17%, homoeopathy in 11%, home remedies in 6%, and combination therapy in 10%. The difference was significant ($P < 0.05$).

Conclusion: The most common self used drug was antipyretic and preferred therapy was allopathy.

Key words: Children, Self- medication, side effects

Introduction

WHO recognizes self-medication as an element of self- care. Self-medication is defined as the utilization of drugs to treat self-diagnosed disorders or symptoms or the irregular or continuous use of a prescribed drug for chronic or repeated diseases or symptoms. In Pediatrics, self-medication implies administration of medication by the care giver without medical consultation. Although over-the-counter (OTC) drugs are meant for self-medication and are of proven efficacy and safety, their improper use due to lack of knowledge of their side effects and interactions could have serious implications, especially in extremes of ages.

Analgesics,antipyretics, anti-inflammatory agents, cough and cold preparations areamongst the commonly practiced self-medications. The concept of self-medication involves the use of medicines for curative purposes but without professional advice.³ It is an act of obtaining and consuming drugs without the advice of a healthworker. Inappropriate use of self-medication can increase “drug-induced illness”, death and waste of public funds, bacterial infections, hypersensitivity and withdrawal symptoms.⁴

Children are given medications by their parents. When childrenbecome sick the first response by most of the parents is to self-medicate them. Majority of the parents in both developed and

developing countries prefer to treat their child's common ailments like fever, cough/cold and diarrhoea without consulting a physician.⁵

Economic, political and cultural factors have contributed to the growth and spread of self-medication worldwide. These include greater availability of drugs, irresponsible publicity, pressure to convert prescription only drugs to over-the-counter drugs, access to health-care, education of parents and their socio-economic status. The present study was conducted to assess pattern of self-medication among children.

Materials & Methods

The present study consisted of 90 children age ranged 12- 18 years of both genders. Parental consent was taken of all children.

Data pertaining to children such as name, age, gender etc. was recorded. The questionnaire used consisted of information such as medicines used to treat illness and reasons for self-medication, type of medication used and type of therapy preferred. Data thus obtained were assessed statistically. P value < 0.05 was considered significant.

Results

Table I Distribution of subjects

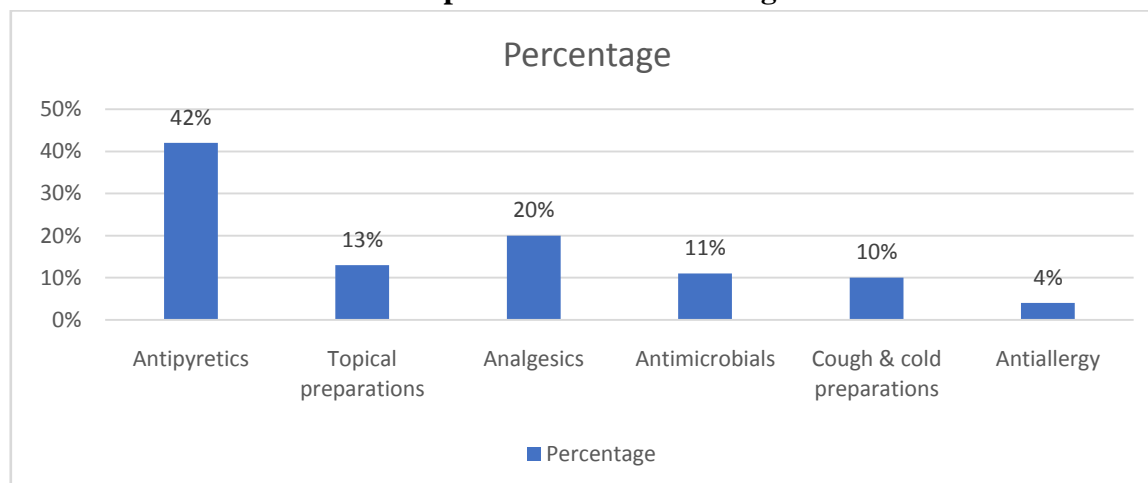
Total- 90		
Gender	Boys	Girls
Number	40	50

Table I shows that out of 90 children, boys were 40 and girls were 50.

Table II Self-medicated drugs

Self-medicated drugs	Percentage	P value
Antipyretics	42%	0.04
Topical preparations	13%	
Analgesics	20%	
Antimicrobials	11%	
Cough & cold preparations	10%	
Antiallergy	4%	

Table II, graph I shows that drugs were antipyretics in 42%, topical preparations in 4%, analgesics in 20%, antimicrobials in 11%, cough & cold preparations in 20% and antiallergy in 4%. The difference was significant (P< 0.05).

Graph I Self-medicated drugs**Table III Therapy used by subjects**

Therapy	Percentage	P value
Allopathy	56%	0.02
Herbal	17%	
Homoeopathy	11%	
Home remedies	6%	
Combination	10%	

Table III shows that therapy used was allopathy in 56%, herbal in 17%, homoeopathy in 11%, home remedies in 6%, and combination therapy in 10%. The difference was significant ($P < 0.05$).

Discussion

Drug utilization in children is of great concern worldwide. Many drugs for this group of population are used in outpatient settings. Parents generally give drugs to treat their child sickness.⁸ The trend of using drugs on their own that is self-medication has been increasing in developing countries as well as in developed countries in recent years. Drugs use without consulting any physician or health care provider for treating or preventing the ailments is self-medication.⁹ All people must be aware of the benefits and risks associated with the self-use of medicines. Self-medication associated risks include inappropriate diagnosis, drug interactions, drug resistance and adverse drug reactions, inappropriate drug choice and augmented polypharmacy.¹⁰ Risk of drug dependency and abuse are also associated with self-medication. Others may also include inadequate dosage, excessive prolonged drug use and double medication as individuals could not be able to identify that same drugs have already been taken with another brand name which may lead to serious consequences. Unjustified and absurd self-medication consequence is the wastage of healthcare resources and may also lead to hospital admissions.¹¹ The present study was conducted to assess pattern of self-medication among children.

In present study, out of 90 children, boys were 40 and girls were 50. Naaraayan et al¹² found that prevalence of self-medication was 32%. Common illnesses leading to self-medication

were fever, cough and cold. Commonly used drugs were paracetamol, anticold medications and antibiotics. Most of them used previous prescription to procure the drugs and previous experience on efficacy was the most common reason cited. Older children were more commonly self-medicated than the younger ($p = 0.001$). Self-medication is encountered in 32% of children attending the outpatient department of the hospital and is more common in older children.

We found that drugs were antipyretics in 42%, topical preparations in 4%, analgesics in 20%, antimicrobials in 11%, cough & cold preparations in 20% and antiallergy in 4%. Gohar et al¹³ 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. Old prescriptions, family members, friends and medical stores were common source of self-medication. We observed that therapy used was allopathy in 56%, herbal in 17%, homoeopathy in 11%, home remedies in 6%, and combination therapy in 10%. WHO recognizes self-medication as an element of self-care and defines the role of pharmacists in self-medication. The joint statement by International Pharmaceutical Federation and the World Self-Medication Industry encourages responsible Self-medication by listing responsibilities of pharmacists and manufacturers of non-prescription medicines. Responsible self-medication is where the patient is provided all necessary information about the medicine and uses only non-prescription drugs for self-medication. Only when responsible self-medication is practiced it will not be a menace to the society.¹³

Conclusion

Authors found that most common self used drug was antipyretic and preferred therapy was allopathy.

References

1. Choonara I, Gill A, Nunn A. Drug toxicity and surveillance in children. *Br J Clin Pharmacol.* 1996;42:407-10.
2. Chalker J. Improving antibiotic prescribing in haiphong province, Vietnam: the “antibiotic-dose” indicator. *Bulletin of the World Health Organisation.* 2001.
3. Johnson RE, Pope CR. Health status and social factors in nonprescribed drug use. *Med Care.* 1983;21:225-33.
4. Dineshkumar B, Raghuram TC, Radhaiah G, Krishnaswamy K. Profile of drug use in urban and rural India. *Pharmacoeconomics.* 1995;7:332-46.
5. Sharma R, Verma U, Sharma CL, Kapoor B. Self-medication among urban population of Jammu city. *Indian J Pharmacol.* 2005;37:37-45.

6. Tibdewal S, Gupta M. Mother's use of self-medication in their children of pre-school age. *Indian J Public Health*. 2005;49(1):27-9.
7. Anand NK, Tandon L. Evaluation of sources and trends in pediatric medication including self-medication. *Indian Pediatr*. 1996;33:947-8.
8. Saradamma RD, Higginbotham N, Nichter M. Social factors influencing the acquisition of antibiotics without prescription in Kerala state, south India. *Soc Sci Med*. 2000;50(6):891-903
9. Pereira FS, Bucarechi F, Stephan C, Cordeiro R (2007) Self-medication in children and adolescents. *Jornal de Pediatria* 83: 453-458.
10. Cruz MJ, Dourado LF, Bodevan EC, Andrade RA, Santos DF. Medication use among children 0-14 years old: population baseline study. *Jornal de Pediatria* 2014;90: 608-615.
11. Ryan T, Brewer M, Small L. Over-the-counter cough and cold medication in young children. *Pediatr Nurs*. 2008;34(2):174-80.
12. Schaefer MK, Shehab N, Cohen AL, Budnitz DS. Adverse events from cough and cold medications in children. *Paediatrics*. 2008;122:783-7.
13. Naaraayan SA, Rathinabalan I, Seetha V. Self-medication pattern among children attending a tertiary hospital in South India: a cross-sectional study. *Int J Contemp Pediatr* 2016;3:1267-71.
14. Gohar UF, Khubaib S, Mehmood A. Self-Medication Trends in Children by their Parents. *J Develop Drugs* 2017;6: 173.
15. World Health Organization. Self-care in the context of primary health care: Report of regional consultation, Bangkok, Thailand, WHO-SEARO, 2009.
16. Dr. Aarushi Kataria, Dr. Naveen Nandal and Dr. Ritika Malik, Shahnaz Husain - A Successful Indian Woman Entrepreneur, *International Journal of Disaster Recovery and Business Continuity* Vol.11, No. 2, (2020), pp. 88-93
17. Kumar, S. (2020). *Relevance of Buddhist Philosophy in Modern Management Theory. Psychology and Education*, Vol. 58, no.2, pp. 2104-2111.
18. Roy, V., Shukla, P. K., Gupta, A. K., Goel, V., Shukla, P. K., & Shukla, S. (2021). Taxonomy on EEG Artifacts Removal Methods, Issues, and Healthcare Applications. *Journal of Organizational and End User Computing (JOEUC)*, 33(1), 19-46. <http://doi.org/10.4018/JOEUC.2021010102>
19. Shukla Prashant Kumar, Sandhu Jasminder Kaur, Ahirwar Anamika, Ghai Deepika, Maheshwary Priti, Shukla Piyush Kumar (2021). Multiobjective Genetic Algorithm and Convolutional Neural Network Based COVID-19 Identification in Chest X-Ray Images, *Mathematical Problems in Engineering*, vol. 2021, Article ID 7804540, 9 pages. <https://doi.org/10.1155/2021/7804540>