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A Study on Self-Medication Practice in General Population Visiting to Tertiary Care Teaching Hospitals, Jaipur

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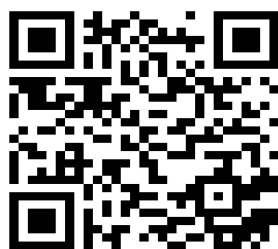
Abstract:

Background:

Self-medication is defined as the selection and use of medicines by individuals to treat self-recognized or self-diagnosed conditions or symptoms. The meaning of "Self-medication" word is purchasing or taking drugs without prescription. People choosing self-medication because lack of time, lack of health services, high cost of medical consultation, easy availability of drugs.

Method

This study is a single centred study where 96 subjects were observed and studied to assess self-medication practice at the Jaipur National University for Medical Sciences and Research, Jaipur. Statistical calculation was made by Chi-square test and using SPSS statistics V22.0 software.

Result

Self-medication can cause health severity. Self-medication has a positive impact on 33.33% of the population while having a negative impact on 66.67% of the population. Hence most commonly self medication drugs are analgesic (88.54%) and anti-pyretic (87.5%) According to research, that found risk of self-medication practice like incorrect self-diagnosis, incorrect choice of therapy, rare but severe adverse effects, incorrect route of administration, risk of dependence and abuse.

Conclusion

This research focused on the practice of self-medication, its use, its safety, and the reasons for its use. Self-medication has a positive impact on 33.33% of the population while having a negative impact on 66.67% of the population. It is safe if the people who use it have sufficient knowledge of its dose when to take it, and the side effects in case of overdose, but due to lack of information antibiotic resistance, and skin problems It may lead to serious effects such as hypersensitivity and allergies.

Keywords: Self-medication, OTC drugs, General population, risk.

Introduction:

The word "medicine" is derived from the Latin word medicina, meaning the art of healing. Medicines are chemicals or compounds used to cure or prevent disease that deal with the maintenance of health and the prevention, alleviation, or cure of disease [1] The meaning of self-medication is to treat yourself (something). According to the World Health Organization (WHO), it describes "the selection and use of personalized medicines (herbs or chemicals) to treat self-identified illnesses and symptoms" [2]. Self-medication includes taking both prescription and over-the-counter (OTC) medications without consulting a doctor.[3] Self-medication with over-the-counter medications is a global public health issue [4]. and has more expertise in underdeveloped nations [5]. Age, gender, money and spending, self-care orientation, education level, contentment with medical knowledge, and the seriousness of illnesses are only a few of the variables that have an impact on self-medication behaviors [6, 7]. Numerous common issues with self-medication exist as well [8, 9]. Both advertising and the growing media exposure of medications constitute a serious threat to this demographic. It is well known that the majority of people utilize at least one of the advertised products without first seeking medical advice [10]. Other reasons for self-medication include advice from family and friends, consumption of remaining medicines already available at home where health concerns are considered less important, lack of time, and medical care. High cost of consultation, availability of medicines, lack of transportation, convenience, self-treatment of symptoms, available doctors, and sufficient information

[11,12]. Self-medication behaviors can have negative health outcomes and negative community-level effects, but they can also have demonstrable benefits (such as community-funded decreases in healthcare costs)[13]. It suffers longer from the condition, in addition to the possibility of a false or delayed diagnosis [14]. Serious health risks, such as adverse drug reactions (ADRs), can result from self-medication [15]. Due to comorbidity, elderly persons frequently rely on self-medication. As a result, individuals use more previously prescribed or over-the-counter medications for self-care, which raises the possibility of negative health impacts [16-17].

Materials and Methods:

This study is based on an observational view in which 96 subjects were observed and studied to evaluate self-medication practice at Jaipur National Institute for Medical Sciences and Research, Jaipur. The subjects were taken from OPD, IPD Patients, and Patient attendants, respectively. The subjects were informed about the study and each and every detail regarding the study was described to them. The subjects above 18 years and those who willingly sign the consent form are only included. Socio-demographic data were collected for each patient, including age, gender, education, socioeconomic status, occupation, and place of residence (homes or cities). The study was explained to the patients through an information sheet and their consent was obtained. Statistical calculation was made by using SPSS statistics V22.0 software to check the significance of data by using the Chi-square test.

Results and Discussion:

Table-1. Self-medication on the basis of age

| AGE	NUMBER OF POPULATION	PERCENTAGE (%)	MEAN	STANDARD DEVIATION
0-20	9	9.37		
21-40	66	68.75	**32.02**	**±12.285**
41-60	17	17.70		
61-80	4	4.16		

Figure-1. Number of populations with age
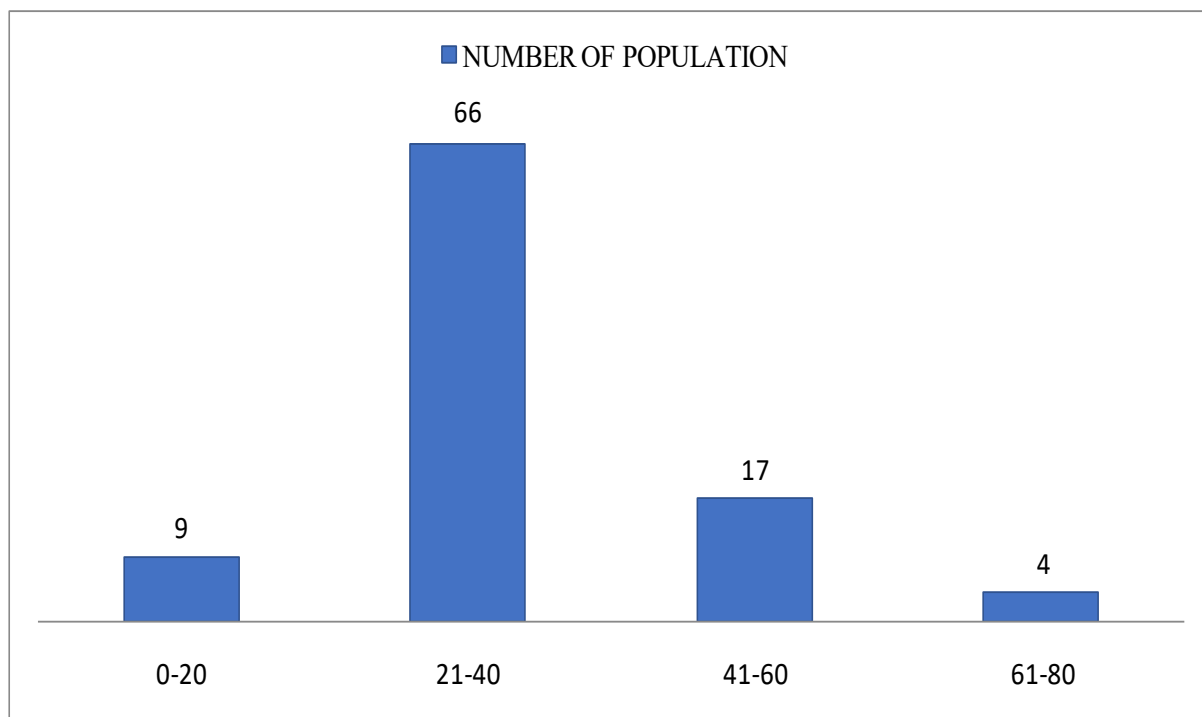
▲ In the above table, sample size of 96 general populations is studied, out of which on the basis of age 0-20 years are 9, 21-40 years are 66. This age group is highly responsible for self-medication, 41-60 years are 17 and 61-80 years are 4. On the basis of gender 58.33 are male and 41.67 are female. Mean was found to be 32.02 and standard deviation found to be ±12.285.

Table-2. On the basis of job profile

JOB PROFILE	NO. OF POPULATION	PERCENTAGE (%)
Business	9	9.37
Doctor	1	1.04
Driver	2	2.08
Engineer	1	1.04
Farmer	5	5.20
Housewife	20	20.83
Security	1	1.04
Student	34	35.41
Teacher	6	6.25
Warden	1	1.04
Worker	16	16.66

Figure-2. Number of populations with job profile
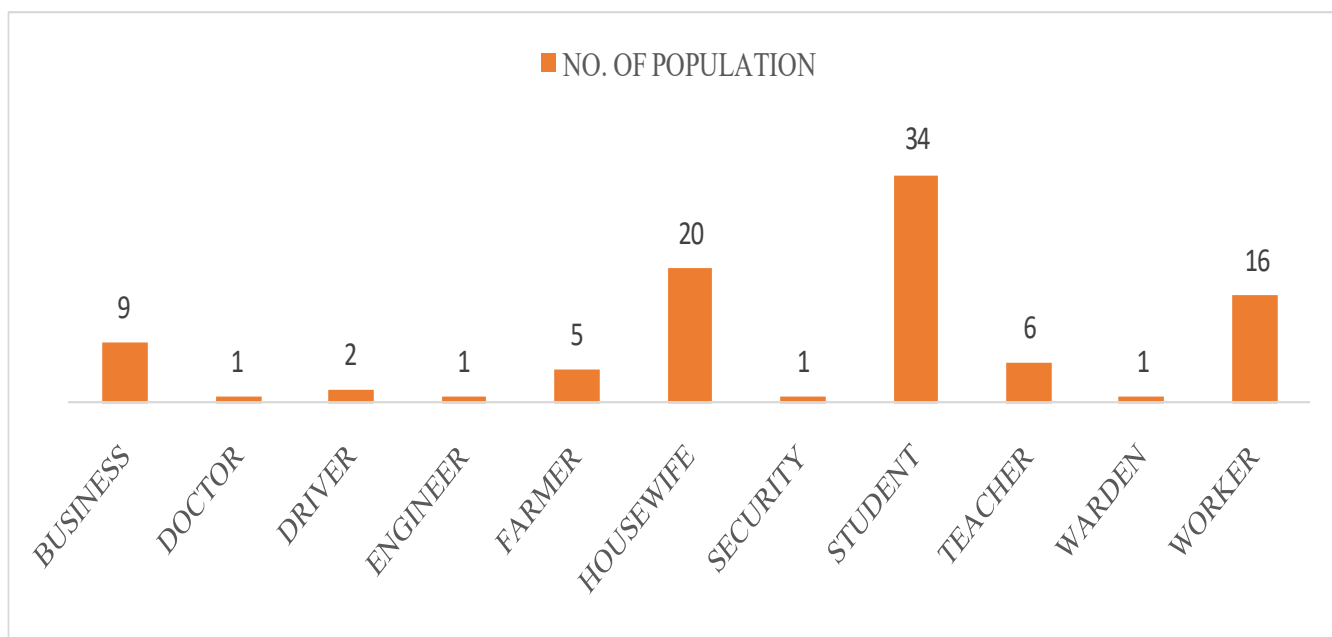
▲ According to a sample size of 96 general populations, out of which on the basis of job profile business persons are 9, doctor is 1, drivers are 2, engineer is 1, farmers are 5, housewife are 20, security guard is 1, students are 34, teachers are 6, warden is 1, workers are 16. On the basis of family background medical background are 28 and non-medical background are 68.

Table-3. On the basis of illness

| Illness	NO. OF POPULATION	PERCENTAGE (%)
Fever	85	88.54
Headache	68	70.83
Cough	51	53.12
Stomach pain	37	38.54
Cold/flu	66	68.75
Vomiting	34	35.41
Diarrhoea	11	11.45
Allergy	20	20.83
Pain	58	60.41
Skin problems	9	9.37
Eye infection	10	10.41
Ear infection	1	1.04
Gastritis	33	34.37

▲ In the above table, according to 96 general populations is studied, on the basis of illness fever 85, headache 68, cough 51, stomach pain 37, cold/flu 66, vomiting 34, diarrhoea 11, allergy 20, pain 58, skin problem 9, eye infection 10, ear infection 1, gastritis 33.

Table-4. On the basis of common drugs used as self-medication

COMMON DRUGS	NO. OF POPULATION	PERCENTAGE (%)
Analgesic	85	88.54
Anti-pyretic	84	87.5
Anti-histamine	69	71.87
Anti-emetic	37	38.54
Expectorant	52	54.16
Antacid	35	36.45
Antibiotic	25	26.04

Figure-3. Number of populations with medication
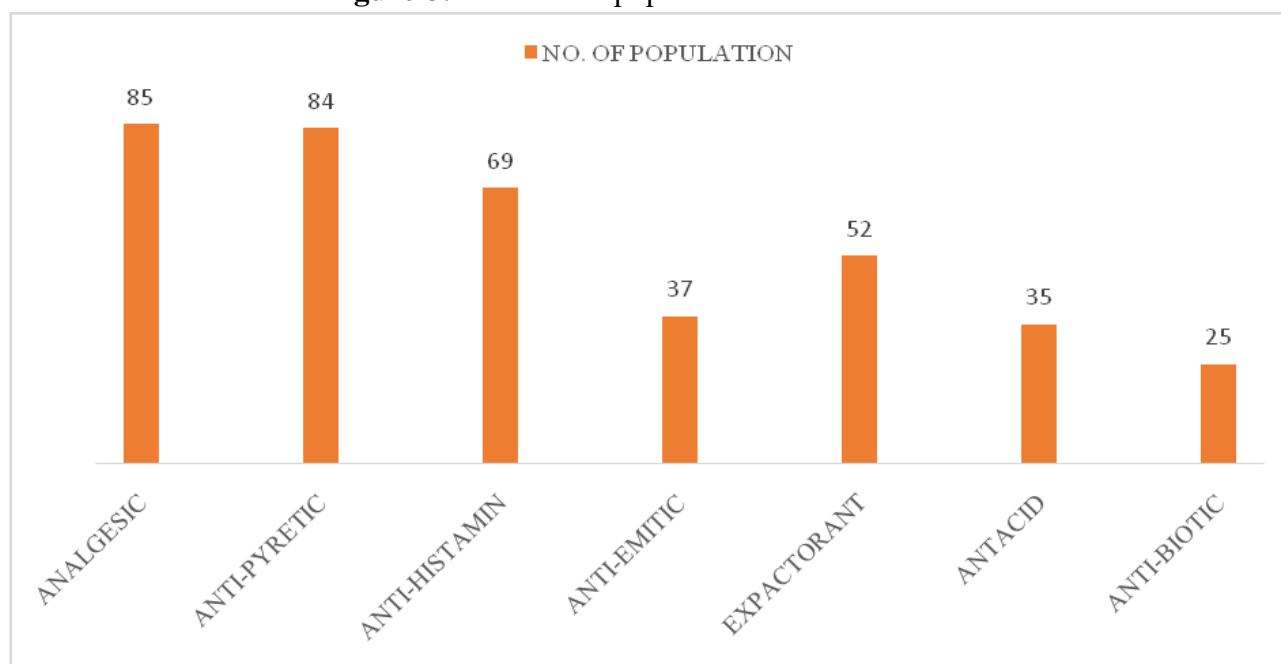
▲ Above Table shows, 96 general populations, on the basis of common drugs used as self-medication analgesics used by 85, anti-pyretics used by 84, anti-histamine used by 69, anti-emetic used by 37, expectorant used by 52, antacid used by 35 and anti-biotic used by 25.

Table-5. On the basis of benefited with self-medication

BENEFITED	NO. OF POPULATION	PERCENTAGE(%)
Yes	32	33.33
No	64	66.66

▲ In the above table, out of total population benefit of self-medication practice 33.33% while having a negative impact on 66.67% of the population.

Discussion:

This study examined the practice of self-medication and the perception of self-medication among the general population. Self-medication occurs in all population groups, and the main cause of self-medication is to buy medicines from pharmacies without proper advice, followed by leftover medicines at home. Out of the 96subjects who practiced self-medication, 9.37% were in the age group of 0-20 years, while 68.75% were from age group of 21-40 years, 17.70% were from age group of 41-60 years and 4.16% were from age group of 61-80 years. (figure 1). The figure1 shows that high rate of self-medication practiced by the age group of 21-40 years. 56 (58.33%) were males and40 (41.66%) were females. The figure2 is showing practice of self-medication at a more rate in males as compared to females. As per Table-3, it's evident that majority of self-medication was practiced for fever (88.54%) headache (70.83%) cold/flu (68.75%), pain (60.41), vomiting (35.41%), gastritis (34.37%) and the lowest rate for ear infection (1.04%). Usage of fever is remarkably high when compared to other groups. A study in Rajasthan showed majority of self-medication was practised for acidity (49.44%) followed by fever (22.47%) & headache (13.48%). There are several reasons for self-medication practice, most common reason was health problem is not serious (95.83%), easy availability of drug (85.41%), suggestion of relative/friends (41.66%), high cost of medical consultation (37.5%), lack of health services (23.95%), lack of time (21.87%), transportation (18.75%) and fear (10.41%). The majority of youngsters showed internet surfing (29.16%) was the method for the selection of any medication, while for the adults population, telling symptoms to a chemist was most practiced trend for choosing any drug. Adult females consumed drug after some family member's advice. Also, the majority of people agreed that this is not a right practice still they were following it just because of comfort & convenience.

Conclusion:

Therefore, it is undoubtedly time to end the practice of self-medication. The idea of self-medication is troubling. The practice of self-medication, its use, its safety, and the motivations behind it were the main topics of this study. It is safe if the users are sufficiently knowledgeable about the dosage form when to take it, and the side effects in case of an overdose, but owing to a lack of understanding about antibiotic resistance and skin issues, which results in serious complications like hypersensitivity and allergies. As a result, the economic, educational, and medical infrastructure in developing nations like India is subpar. The dangers of self-medication are less widely known. The decision to support self-medication is on the verge of being made. A holistic approach is recommended to prevent this problem. This includes proper awareness and education of self-medication and rigorous drug advertising.

Author's Contribution:

Study conception and design: SD. Data collection: SD, MS, SK. Analysis and interpretation of results: RVS, SD. Draft manuscript preparation: SD, MS and SK. All the authors reviewed the results and approved the final version of the manuscript.

Conflict of Interest:

The authors declare that there is no conflict of interest regarding the publication of this research article.

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Ethics:

This study has received ethical approval from the health research ethical committee of Institute for Medical Sciences and Research Centre. Jaipur National University, Jaipur, Rajasthan, India

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