



# FUTURE JOURNAL OF PHARMACEUTICALS AND HEALTH SCIENCES

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## Perception of rural and urban population on generic and branded drugs

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### ABSTRACT

Generic medicines are identical/ clone to an innovator or product brand name. After expiration of patent terms of the innovator product, other pharmaceutical companies usually apply to the drug regulatory bodies for approval to market the generic versions of the innovator's drugs. Generic drugs in the market were sold under the non-proprietary name or brand name. Drugs and medicines form a significant portion of out of pocket (OOP) expenses in Indian households. In order to resolve this issue, Government of India launched Jan Aushadhi Scheme (JAS) to provide inexpensive generic drugs to the patients. A separate interview was conducted for the illiterate people and Google forms were forwarded through whatsapp for literates, both contain the same questions to exclude the bias. The collected data was analysed and converted to graphs/pie charts and the collected data was documented. Our study concludes that by using the questionnaire, the total patients (n= 500) were interviewed, different ages of people were included(15 to above 50). 15-30 age group 29.2%, 31-49 age group 39.8%, above 50 age group 31% were involved. Male 60.4%, Female 39.4%, literate 47.4%, illiterate 52.6%, rural 49%, urban 51% were involved. A standard survey form/data collection sheet for both rural and urban population was used. Both literates and illiterates in rural and urban population almost 49% preferred branded drugs due to brand trust, quality, efficacy, and nearly 38% purchase medications based on the availability and remaining 13% preferred generic due to various reasons like cost effectiveness, same as branded quality and effectiveness.

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### INTRODUCTION

Generic medicine is similar to an innovator drug. After expiration of patent terms of the innovators product, other pharmaceutical companies usually apply to the drug regulatory bodies for approval to market the generic versions of the innovators drugs. Generic drugs are sold in the market under the non-proprietary name or brand name [1]. Further, the concept of bioequivalence is a main requirement for the approval of generic medicines. Bioequivalence is investigated to demonstrate clinical equivalence of the generic medicine with its counterpart original brand, and hence repeating the preclinical and clinical tests performed on the innovators brand is

not needed [2]. Another term is frequently used for the generics made by brand companies are branded generics. It is called so because the combination of the innovators name and the non-proprietary name is used for marketing/ promotion of the drug molecule. Usually branded drugs are expensive than generic drugs because there is no involvement of huge expenses in generic as branded. The notion of the move to shift to generic drugs in drugs prescription to save cost in medication was recognised by many. As the generic drugs were inexpensive about 80% compared to innovator brand drugs, especially in the developing countries the cost-saving measure was said to be immense [3]. The increasing costs and affordability of medicines have become a financial burden for both patients and governments worldwide. One of the main methods of elevates the use of generics, and in the long term also cutting drug therapy costs, is generic substitution. The use of generic drugs is steadily increasing worldwide as an outcome of economic pressure on drug budgets. Generic drugs provide major savings in healthcare expenses since they are usually substantially inexpensive than the innovator brands [4].

Drugs and medicines form a significant portion of out-of-pocket (OOP) spending on health among households in India and have become a major source of catastrophic expenditure for both inpatient (hospitalization) charges outpatient services as well. Private OOP expenditure by the low income households on drugs is responsible for considerable push to families into poverty. An ideal solution to decrease the out of pocket expenditures expenditure due to medicines would be free distribution of medicines, Jan Aushadhi Kendra (PMJAK). Some studies have investigated the quality and efficacy of generic medicines provided at found generic medicines to be of similar quality and efficacy to their branded equivalents [5, 6]. To make generic medicines available to the people, Government of India launched the Jan Aushadhi Scheme (JAS) in 2008. Under the scheme of Jan Aushadhi generic drug stores were launched all over the country to provide low-cost generic medicines to the society. However, many of these generic stores are non-functional or have closed for various reasons like poor support from state governments, poor supply chain, non-prescription of generic medicines by the doctors, lack of awareness, etc. [7].

### Need for the Study

The purpose of this study is to assess the rural & urban people's perception regarding the usage of generic and branded drugs and finding the major reasons behind those drugs use and knowledge of

the people [8]. Generally people are not aware of generic drugs even if they are inexpensive when compared to branded drugs so we conducted this study to gain knowledge about generic drugs and change their perception regarding quality differences between them.

### METHODOLOGY

Our study was to evaluate the population perceptions regarding generic and branded drugs in rural and urban populations. It was a prospective study with duration of six months from February 2021 to august 2021. The study was conducted in the population of in and around Vijayawada. A total of 500 samples were collected. We used a convenient sampling method based on literates and illiterates (for illiterates an interview is conducted and for literates questionnaire was sent through social media). The population was interviewed with simple questionnaire regarding their perception on branded and generic drugs. Besides demographics, it contains questions addressing knowledge (difference between generic and branded drugs), reasons for buying branded medicines over generic medicines), preference of medication (asking doctor or pharmacist to prescribe medicines as their preference either branded or generic) knowledge about price difference, and about Jan Aushadhi Scheme (JAS) launched by Government of India [9].

### Inclusion Criteria

1. Age group of 15 to above 50 years.
2. Both literate and illiterate
3. Both rural and urban
4. Patients with disease and healthy individuals are considered [10].

### Exclusion Criteria

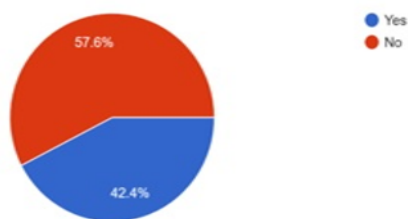
1. Children below 15 years
2. Patients with psychological disorders [11].

### RESULTS AND DISCUSSION

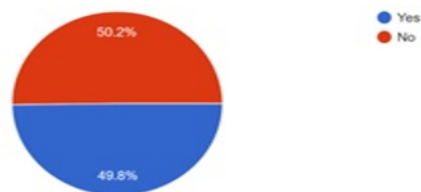
By using the questionnaire, the total patients (N= 500) were interviewed, different ages of people were included(15 to above 50).15-30 age group 29.2%, 31-49 age group 39.8%, above 50 age group 31% were involved. Male 60.4%, Female 39.4%, literate 47.4%, illiterate 52.6%, rural 49%, urban 51% were involved [Table 1]. A standard survey

**Table 1: Questionnaire for Rural and Urban Population on Generic and Branded Drugs**

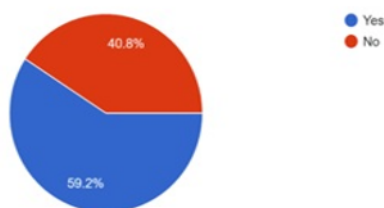
Questions	Options	N Value
1)Age Groups	15 – 30	146 (29.2%)
	31 - 49	199 (39.8%)
	Above 50	155 (31%)
2)Gender	Male	302 (60.4%)
	Female	197(39.4%)
	others	1 (0.2%)
3) Education	Literate	237 (47.4%)
	illiterate	263 (52.6%)
4) Location	Urban	255(51%)
	Rural	245(49%)
5) Do you know the difference between branded and generic medicines?	Yes	212(57.6%)
	No	288(42.4%)
6) Do you know about the price difference between generic and branded?	Yes	296(59.2%)
	No	204 (40.8%)
7) The drugs generally prescribed by your physician are costly or cheap?	Costly	431(86.2%)
	Cheap	69(13.8%)
8) What do you prefer to buy, either generic or branded?	Generic due to cost	42(8.4%)
	Generic due to effective	14(2.8%)
	Generic due to quality	9(1.8%)
	Branded due to brand trust	122(24.4%)
	Branded due to quality	79(15.8%)
	Branded due to effective	44(8.8%)
	Based on availability	190(38%)
	Yes	88(17.6%)
9) Do you ask your doctor to prescribe generic or branded medicine particularly?	No	412(82.4%)
	Yes	98(19.6%)
10) Do you believe in quality difference exists between generic vs branded drugs?	No	187(37.4%)
	Maybe	215(43%)
	Generic	23(4.6%)
11) If Yes, Which medicine is more safe and effective?	Branded	285(57%)
	Both are same	192(38.4%)
	Yes	141(28.2%)
12) Do you know how many generic stores exist in your vicinity?	No	359(71.8%)
	Yes	209(41.8%)
13) Do you suggest the availability of generic medicines in all medical stores?	No	291(58.2%)
	Yes	129(25.8%)
14) Have any person, doctor (or) pharmacist suggested you to switch from branded to generic medicine?	No	370(74.2%)
	Yes	249(49.8%)
15) Did you know about the government of India's Jan Aushadhi Scheme (JAS) regarding generic medicines?	No	251(50.2%)
	Strongly agree	12(2.4%)
16) Do you agree that doctor should ask your choice (Generic vs Branded) while prescribing medicines?	Disagree	47(9.4%)
	Neutral	315(63%)
	Agree	90(18%)
	Strongly agree	36(7.2%)



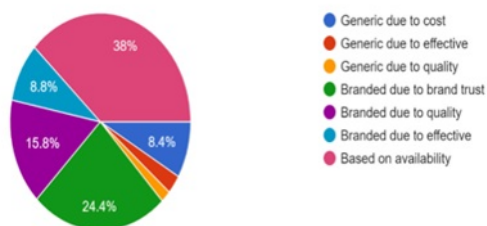
**Figure 1: Percentage of study population who knows about the difference between generic medicines vs branded medicines**



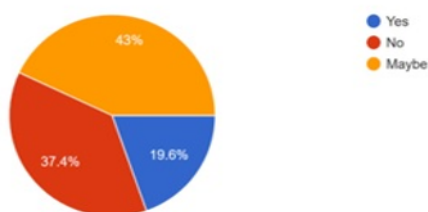
**Figure 5: Percentage of study population who knows about the government of India's JAN aushadhi scheme regarding generic medicines**



**Figure 2: Percentage of study population who knows about the price difference between generic vs branded**



**Figure 3: Percentage of study population who prefer to buy according to their choice, either generic or branded**



**Figure 4: Percentage of study population who believes in quality difference exists between generic and branded**

form/data collection sheet for both rural and urban population was used.

In this study we observed that 57.6% know the difference between generic and branded drugs, remaining 42.4% do not have any idea about it [Figure 1], but most of the people nearly 59.2% are aware about the price difference between the generic and brand drugs. In the total population of the sample (n=500), 39.8% are between 31- 49, 29.2% are from 15 to 30, and the remaining 31% are above 50 [Figure 2].

Nearly three fourth of the total sample are males with 60.4%, females with 39.4% and includes others (0.2%). Generally these samples are collected from different locations like 51% from urban and 49% rural. Populations in these places generally include both literate and illiterate people/ patients. According to your study the majority of illiterates are found in both the places with 52.6% and literates with 47.4%. According to these people/patients in different locations confirmed that drug prescribed by the physician is much expensive when compared to the other drug in the market with same composition, so 38% of the population are purchasing drugs [Figure 3] based on their availability and 24.4 % are determined to brand due to the brand trust and quality (15.8%).

Similarly people/patients are not purchasing generic drugs because they are not trustworthy and effective as branded drugs. Only 1.8% of the total sample preferred generic drugs for their quality, 2.8% for effectiveness and 8.4% preferred generic drugs based on the cost when compared to the branded drugs. 43% of the population still believe in the quality difference between these two types of drugs. So 57% patients believe branded is much safer when compared to generic drugs and only 38.4% believe both are same [Figure 4].

Generally patients have different opinions and knowledge regarding generic and brand drugs but only 17.2% of the patients ask their physician

or pharmacist to prescribe an either generic or branded based on their preference and remaining 82.4% of the population does not have any preference regarding medications.

Medicines add up to a substantial proportion of out-of-pocket (OOP) expenses in Indian households. In order to address this issue, the Government of India launched the Jan Aushadhi Scheme (JAS) to provide inexpensive generic medicines to the patients, so we can see a rapid increase of generic stores in different locations but only 28% of the patients know the availability of generic stores in their vicinity [Figure 5].

According to the study, patient's opined branded drugs and some preferred low-cost among those two types. According to the contributors, nearly 80% accepted that generic medicines are inexpensive than branded medicines. But coming to purchase of these medicines; only 20% preferred generic medicines. Only one-fourth of the population believe that the quality and efficacy of generic drugs is the same as branded. Most of them (80%) have an idea that generic medicines have lower effectiveness and quality than branded.

## CONCLUSION

Our study finds that knowledge and attitude, preference regarding about generic medicines among population was poor. Most of them have wrong opinion, which is not a good sign for developing and continual of Jan Aushadhi scheme. According to the study, patient's opined branded drugs and some preferred low-cost among those two types. According to the population, nearly 80% accepted that generic medicines are inexpensive than branded medicines. But coming to purchase, only 20% accepted that they preferred generic medicines. Only one-fourth of the population believe that the quality and efficacy of generic drugs is the same as branded one. Most of them (80%) have an idea that generic medicines have lower effectiveness and quality than branded. Both literates and illiterates in rural and urban population almost 49% preferred brand drugs due to brand trust, quality, efficacy, and nearly 38% purchase medications based on the availability and remaining 13% preferred generic due to various reasons like cost effective, same as branded quality and effectiveness. Based on our study the future steps that may take people perception on generic drugs further by awareness in population regarding generic drugs, so pharmacist, and medical professionals play a vital role in changing people's perception. Although the government of India had implemented different types of schemes like Jan Aushadhi

scheme (JAS), the perception regarding this has not reached people according to our study. So much attention/implementation are needed to change the perception of people on generic drugs.

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## Conflict of Interest

The authors attest that they have no conflict of interest in this study.

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