Consumer’s Preference towards Drugs - Generic V/S Branded Drugs - A Cross-Sectional Study

Faculty of Management and Commerce, M S Ramaiah University of Applied Sciences, Bangalore-560054, India
ranjithmunna1997@gmail.com, shashankkeremane@gmail.com, Nikhilthe1009@gmail.com, Shadanshafai@hotmail.com, premfernandes02897@gmail.com, prajwalpraju1300@gmail.com, rbka1999@gmail.com
2 Faculty of Pharmacy, M S Ramaiah University of Applied Sciences, Bangalore-560054, India
tanmoy.ps.ph@msruas.ac.in, basavaraj.ps.ph@msruas.ac.in

Abstract

The idea of using generic pharmaceuticals is generally acknowledged around the world. Nonetheless, it has struggled to acquire traction in India due to a lack of awareness, information and faith in the product's quality. Therefore, keeping in line with this idea a study was conducted to assess consumer knowledge and attitudes concerning generic drug usage and distribution, as well as to raise awareness among survey participants. A cross-sectional questionnaire survey was done with 208 consumers, 65 retailers and 15 PMBJAK. In our study, 78% of consumers were aware of generic medicines, 13% believed that generic medicines had higher quality, 76% knew about PMBJAK, 93% of retailers believed that branded medicines were of higher quality, 83% of them were aware of PMBJAK and 34% believed that branded medicines were prescribed the most in their area through the prescription process. Our findings imply that participants' knowledge and attitudes about generic drugs were lacking. Doctors' recommendations and drug company advantages have been demonstrated to influence retailers. The findings highlight the need of raising public awareness and understanding of generic drugs, PMBJAK, and sensible drug usage.

Keywords
Consumer; retailer, Jan Aushadi Kendra, branded medicine and generic medicines.

1. Introduction

A generic medicine has the same chemical constituent as a previously patent-protected treatment. After the patents on the original pharmaceuticals expire, generic drugs can be sold. The medical profile of generics is thought to be equal in performance since the active chemical ingredient is the same. The active pharmaceutical ingredient (API) in a generic medicine is the same as in a brand-name drug, but it may differ in terms of manufacturing process, formulation, excipients, colour, flavour, and packaging (Nogués, J.J., 1990). Even though they are not linked with a specific manufacturer, generic drugs are usually subject to government restrictions in the countries where they are marketed. They have the manufacturer's name and a generic nonproprietary name for the drug, such as the United States Adopted Name (USAN) or the International Nonproprietary Name (INN) (INN). A generic medicine's active ingredients must be the same as those in the original brand-name formulation. In most cases, generic copies of drugs become available after the patent protections provided to the drug's original originator expire (Rachit, K et al., 2011). When generic medications are released to the market, both the original brand-name product and its generic competitors typically see large price reductions. In most countries, patents grant protection for 20 years. Many countries and regions, including the European Union and the United States, may provide producers up to five years of extended protection ("patent term restoration") if they meet specific conditions, such as completing paediatric clinical studies.

"Branded generics" are goods that are either unique dosage forms of off-patent medications manufactured by a manufacturer who is not the molecule's originator, or a molecular copy of an off-patent product with a commercial name, according to the FDA and the National Health Service. Because a business that makes branded generics can
spend so little on research and development, it can focus only on marketing, resulting in better revenues and lower expenses. Ranbaxy, which is currently owned by Sun Pharma, made the most money from branded generics (Zeithaml, V.A et al., 2001). When a new medication is developed, the business that discovered it must file for patent in order to prohibit other firms from manufacturing and selling it. This patent might take up to 20 years, during which time the corporation will manufacture and market the medication under a brand name in order to recoup its investment and profit. This moniker has grown associated with the substance over time. Other businesses are free to create a similar medicine when the patent expires. It is what gave rise to the terms "brand" and "generic" in the pharmaceutical industry (Hassali et al., 2009). In the previous few decades, India's pharmaceutical growth has been phenomenal. India has progressed from being a net importer of medications in the 1970s to one of the world's leading exporters of drugs and vaccines, ranking third and thirteenth in terms of volume and value, respectively. The pharma industry's turnover increased dramatically from INR 1,750 crores in 1990 to INR 2.89 lakh crores in 2019–20, with exports accounting for half of the total. Rapid and significant improvements in manufacturing processes to improve drug quality have resulted in a situation where India now has the largest number of US FDA-approved facilities in the world, with about 665, along with 1,400 WHO GMP-approved plants and about 253 European Directorate of Quality Medicines-approved production plants (Brandl et al., 2015).

Pharmaceuticals account for 43.2 percent of India's total out-of-pocket health spending. As a result, it is the single greatest contributor to OOPE, which accounts for 62.7 percent of overall health spending in the country. As a result, pharmaceutical prices have a considerable impact on healthcare access. While price regulation covers roughly 17.7% of India's pharmaceutical industry (in terms of value), competition is likely to be the main source of price discipline for the remainder of the market. India's generic pharmaceutical industry is booming, and it is the world's largest supplier of generic drugs. Generics dominate India's pharmaceutical industry, accounting for nearly all of the country's drug consumption in terms of cash value. Simply around 10% of medications on the domestic market are unbranded/generic generics, which are sold as commodity generics using only their chemical identities; these pharmaceuticals are mostly bought and delivered through public health facilities. In India, branded generics, or generic medications with brand names, account for 87 percent of all pharmaceuticals prescribed. The phenomenon of 'branded generics' is practically unique to India. Despite increases in the government's health budget in recent years, there has been little respite from the country's rapidly expanding medical bills. Despite tremendous growth in the pharmaceutical industry, Indian healthcare experts are concerned about the availability and cost of critical pharmaceuticals. Despite the government's efforts to promote generic drugs, there is still a protracted discussion about their effectiveness. It is past time to analyse how the Indian government's beneficial efforts are perceived. This is especially important in light of the government's initiative to assess patient perceptions of generic vs. branded drugs (Shailesh Tripathi et al., 2018).

1.1 Objectives
The purpose of this study is to determine how consumers think about generic vs branded medicines. A cross sectional questionnaire based study was carried out to,

- To assess Consumers (Patients), Retailers (Pharmacists), and Pradhan Manthri Bharthiya Jan Aushadi Kendra's understanding of Generic and Branded medications.
- To compare awareness among consumers, retailers and Jan aushadi kendras regarding Generic medicines.
- To create awareness among consumers, retailers and Jan aushadi kendras regarding Generic Drugs.

2. Methodology
Our goal was to assess how generic and branded drugs were perceived by consumers, retailers, and the PMBJAK. It is a cross-sectional questionnaire-based survey with a one-month research period. The survey took place at New BEL Road, Bengaluru, for one month (April-2022), with a sample size of 208 customers, 65 shopkeepers, and 15 PMBJAKs. A simple questionnaire was used to assess customer, retailer, and PMBJAK attitudes of generic and branded pharmaceuticals. It contained questions about knowledge (differences between generic and branded drugs), attitude (attitude toward buying generic medicines over branded medicines), and practice of taking generic medicines, in addition to demographic data (asking doctor or pharmacist to prescribe generic medicines etc). Pharmacies and PMBJAK were selected in few areas of Bengaluru city- New BEL Road, Mathikere, Yeshwanthpur, Hesarghatta etc.,. Descriptive statistical analysis was performed using simple MS Excel to find out the percentage of results and plot pie charts for all the data surveyed.

3. Results
In our survey, 78% of consumers were aware of generic drugs, and 72% were aware of the differences between generic and branded medicines, 13% of consumers think that the generic medicines had better quality than that of branded medicines and 36% think both has same quality, 85% of consumers think that branded medicines are more costly than generic medicines, 76% knew about PMBJAK, 50% of consumers preferred buying generic over branded medicines for OTC purchase, 29% of consumers ask pharmacists in retail shops to substitute branded medicines with generic medicines, 24% of consumers prefer generic medicines for OTC purchase, 7% of consumers think doctors like to prescribe generic medicines, 15% of consumers feel that they have been mostly prescribed generic medicines in the past, 17% feel that chemists prefer selling them generic medicines, 24% of consumers are aware of government guidelines regarding generic and branded medicines, 47% of consumers think that generic name of molecule has to be written on prescriptions in hospitals, 58% of consumers support generic medicine promotion in India (Table 1 and figure 1).

Table 1. Consumer’s Preference of Medication Promotion

<table>
<thead>
<tr>
<th>Row Labels</th>
<th>Sum of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic Medicine</td>
<td>121</td>
</tr>
<tr>
<td>Branded Medicine</td>
<td>16</td>
</tr>
<tr>
<td>Both</td>
<td>48</td>
</tr>
<tr>
<td>Don't know</td>
<td>23</td>
</tr>
<tr>
<td>Grand Total</td>
<td>208</td>
</tr>
</tbody>
</table>

Figure 1. Consumer’s Preference of Medication Promotion

96% of retailers knew that there is price difference between generic and branded medicines, 93% of retailers think that branded medicines have better quality than generic medicines, 83% of them knew about PMBJAK, 60% prefer selling generic over branded medicines, 34% choose generic medicines for OTC sales, 36% believe branded medicines have less side effects than generic medicines, 5% prefer to have generic medicines stock at most of time, 34% substitute generic medicines over branded medicines, 32% retailers get prescriptions having both generic and brand name of the molecule, 32% believe that generic variety exceeds the brand variety of a drug, 80% believes that branded medicines have better packaging than generic medicines, 49% of retailers consider generic medicines to be promoted, 37% are aware of government guidelines regarding generic and branded medicines, 17% prefer generic names on prescriptions, 72% of retailers believe PMBJAK as competition in long run (Figure 2, table 2).

Table 2. Retailer’s Preference of Medication Promotion

<table>
<thead>
<tr>
<th>Row Labels</th>
<th>Sum of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic Medicine</td>
<td>58%</td>
</tr>
<tr>
<td>Branded Medicine</td>
<td>8%</td>
</tr>
<tr>
<td>Both</td>
<td>23%</td>
</tr>
<tr>
<td>Don't know</td>
<td>11%</td>
</tr>
</tbody>
</table>
93% of chemists in PMBJAK believe that there is price difference between generic and branded medicines, 54% believe that advertisement by government is the source of information about PMBJAK, 34% believe that branded medicines are prescribed the most in their vicinity through the prescriptions they get, 13% get prescriptions with generic names, 60% think that the medicines in PMBJAK are fairly priced, 80% believe that medicines at PMBJAK are of good quality, 47% believe that consumers are satisfied at PMBJAK, 33% strongly agree that awareness regarding the PMBJAK should be encouraged more among both Doctors and Consumers (Table 3 and figure 3).

Table 3. PMBJAK Perception on increasing awareness among Doctors and Consumers

<table>
<thead>
<tr>
<th>Row Labels</th>
<th>Sum of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>5</td>
</tr>
<tr>
<td>Agree</td>
<td>2</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
</tr>
<tr>
<td>Disagree</td>
<td>4</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>3</td>
</tr>
<tr>
<td>Grand Total</td>
<td>15</td>
</tr>
</tbody>
</table>
### 4. Discussions

This one-month study is cross sectional in nature. It was carried out among consumers, retailers and PMBJAK. In Bengaluru, the collected data was analyzed to understand the perceptions regarding the generic and branded medicines among the subjects considered above. In this study, sample size of 208 consumers, 65 retailers and 15 PMBJAK were selected and three sets of simple questionnaires were formed respectively. Generic medications go through testing for quality, strength, purity, and potency to show effectiveness before approval by FDA. They must have the same active ingredient and provide the same benefits. Same criteria are applied for branded medications also. Generic and brand medications don’t look the same. Generics may have slightly different inactive ingredients that is excipients (fillers, binders, flavors, etc.). These do not affect the mechanism of medicine works. Drugs manufactured in the nation, whether generic or branded, must meet the same quality criteria as those set forth in the Drugs and Cosmetics Act, 1940 - Rules 1945. Many people have concerns about switching to generics and prefer brands. To be clear, this is a preference. There are no laws that restrict the substitution of any FDA-approved generic or brand medication. It is up to consumers or individuals to decide upon type of medication for OTC purchases, whereas the prescription medications are decided by the registered medical practitioners. Because the pharmaceutical business does not spend money promoting its brand, the price of a generic drug is often cheaper than the price of a matching branded medicine. A pharmaceutical corporation encourages the sale of a generic version by maintaining a large trading margin for wholesalers and retailers.

However, every physician must prescribe pharmaceuticals with readable generic names, preferably in capital letters, and guarantee that the prescription and use of the drug is sensible, according to Clause 1.5 of the Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002. Furthermore, the former Medical Council of India issued a circular on April 21, 2017, instructing all Registered Medical Practitioners (RMPs) to comply with the aforementioned regulations. For violations of the aforementioned Regulations, the MCI or the applicable State Medical Councils have the authority to initiate disciplinary action against a doctor. MCI refers complaints about violations of the code of ethics for doctors to the appropriate State Medical Councils where the doctors/medical practitioners are registered as soon as they are received. Furthermore, Tele-Medicine Guidelines 2020, which were published on May 22, 2020, instruct all RMPs to utilize Generic Names of Drugs in Capital Letters on the prescription format that is attached to the document (Kaushal, S., 2017). The Jan Aushadhi medical stores must take the initiative to deliver generic medications to patients' homes, just as the leading pharmaceutical retail networks. Additionally, a specifically created online gateway must be established. For the advantage of the clients, the information about the medications offered in the nearby Jan Aushadhi medical shop, as well as the location of the local Jan Aushadhi medical store, must be made available in that web portal (Arunkumar et al.2021).

Only by ensuring that high-quality medications are available at reasonable prices will the aim of universal health care be realized. Most branded medications are prescribed by doctors in India. A significant legal overhaul is necessary to prevent doctors from being influenced by the rewards they receive from pharmaceutical corporations. If doctors begin recommending generic medications, JAS would experience a significant surge (H. Manjula Bhai,. 2021). The majority of the subjects were aware of generic medications, as well as the quality and price differences between generic and branded medications, and most of the consumers insisted on substitution, which is a positive
sign; however, many retailers were not as ready for substitution as the consumers. Promotion of generic drugs has an influence on people's financial burden. We attempted to raise knowledge about the use of generic drugs by delivering information pamphlets to the study participants in the hopes of changing their views toward generic medications.

5. Conclusion
Despite policymakers' encouragement, generic medicine usage in India has struggled to garner general acceptance. The use of generic drugs has mostly been limited to government facilities in our nation. The fact that generic drugs can save money is well-known and acknowledged. It is generally recognized that ideas about medications, as well as beliefs about the condition, impact prescription decisions, and studies have found unfavorable connections between low adherence and particular worries about medicine. The lack of information, expertise, and education about pharmaceuticals in terms of consumption, prescription, and dispensing is the major reason why most participants choose branded medicines over generic medicines. The core factors forming consumer’s opinion and expectations for generic medicines are medical professional’s recommendations and previous experience. The main advantage of generic medicines according to the participants in the study are the lower price. Retailers are found to be influenced by doctor’s recommendation and benefits of drug companies. The results raise the issue of the awareness and knowledge about generic medicines, Pradhana Manthri Bharthiya PMBJAK and the rational drug use in the general population.

Acknowledgement
We acknowledge our guide and other faculties at the university along with all the consumers, retailers and PMBJAK stores who had participated in our study.

Abbreviations
PMBJAK: Pradhan Manthri Bharthiya Jan Aushadi Kendra; GOI: Government Of India; OTC: Over The Counter; FDA: Food and Drug Administration; API: Active Pharmaceutical Ingredient; USAN: United States Adopted Name; INN: International Nonproprietary Name; OOPE: Out of Pocket Expenditure; CDSCO: Central Drugs Standard Control Organization; DoP: Department of Pharmaceuticals; MCI: Medical Council of India; RMPs: Registered Medical Practitioners; GPs: General Practitioners.

References
Tripathi, S. and Bhattacharya, S., Patient perception about generic vs. branded medicines prescribed in a tertiary Care Hospital in Northern India-a descriptive study, Indian J Pharm Pract, 11(2), pp.91-5, 2018.

Biographies
Dr. Basavaraj B V, Professor and Head of Department, Pharmaceutics, Faculty of Pharmacy, RUAS, Bangalore, India. He carries with him 19 years of domain experience. He is keenly interested in research concerning novel drug delivery systems, nutraceuticals, and natural products. He obtained his B-Pharm degree from St John’s College of
Pharmacy, Bangalore (1997), his M-Pharm degree from Government College of Pharmacy, Bangalore (2001), and his Ph.D. degree from RGUHS (2013). He has steadily added to his academic knowledge with a Professional Diploma in Clinical Research, a Professional Certificate in Pharmacovigilance, and an Advanced Certificate Programme in Clinical Research.

Mr. Tanmoy Ghosh, with a professional experience of over a decade, works as an Assistant Professor at the Department of Pharmaceutics, RUAS Bangalore, India. A gold medalist in his Master’s degree and is pursuing his Ph.D. He is eager to study extensively on topics such as wound healing, solubility enhancement, crystals and cocrystals. Thus far, he has received grants worth Rs 6.15 lakhs and has one Indian patent, and applied for another one.

Ranjith Reddy J P, Nikhil Goyal, Shadan Shafai is full time post graduate students pursuing MBA in Pharma Business Management in Faculty of Management and Commerce, M S Ramaiah University of Applied Sciences, Bangalore, India.

Prajwal M, Anil Kumar R is full time post graduate students pursuing MBA in Finance in Faculty of Management and Commerce, M S Ramaiah University of Applied Sciences, Bangalore, India.

Shashanka K S is full time post graduate student pursuing MBA in Business Analytics in Faculty of Management and Commerce, M S Ramaiah University of Applied Sciences, Bangalore, India.

Prem Fernandes is full time post graduate student pursuing MBA in Human Resource Management in Faculty of Management and Commerce, M S Ramaiah University of Applied Sciences, Bangalore, India.