



## **Perception Towards Generic and Branded Medicines and its Impact on the Acceptability of Generic Medicines: An Empirical Study among Indian Youth**

**1. Jyotsna Pandey**

**Research Scholar, Department of Environmental Science & Engineering,  
Dr. A. P. J. Abdul Kalam Technical University, Lucknow**

**2. Shipra**

**IES Institute of Pharmacy,  
IES University, Bhopal**

**3. Dr. Shilpa Gopal**

**Assistant Professor Senior Scale  
Department of Commerce  
Manipal Academy of Higher Education  
Manipal**

**4. Dr Sonia Rathee**

**Assistant Professor  
SGT University, Gurugram**

---

### **Abstract**

In many areas of the world, the idea of a generic prescription is commonly accepted. However, it has yet to be successful in gaining popularity in India because of product quality mistrust and lack of availability. However, the Indian government has started what is known as Jan Aushadhi shops, which are exclusive generic medication stores. When prescribing and delivering medications, doctors and pharmacists face a conundrum. The Indian government is encouraging the use of generic pharmaceuticals to lower the cost of health care. How well pharmacists and physicians embrace these initiatives will be crucial. Although it is among the less-discussed issues in medical school, using generic drugs and their accessibility is crucial for providing people with affordable healthcare. The study had considered 213 respondents to know the factors that determines the “Perception towards generic and branded medicines” and its impact on the acceptability of generic medications and concludes that there is significant impact of “perception towards generic and branded medicines” on the acceptability of generic medications.

**Keywords-** Doctor’s Prescription, Generic Medicine, Branded Medicine, Patients’ Perception

---

### **Introduction**

Generic medications are equivalent to their branded counterparts in efficacy, safety, and quality. Generic drugs have the same therapeutic benefits but at a lower cost. Hence, they are

actively marketed in many nations to maintain healthcare and pharmaceutical costs. To increase the usage and consumption of generic medications, the perspective of medicine customers and patients as the final users of these medicines is crucial. Generic drugs may be identical to branded medications in terms of strength, active ingredient, pharmaceutical form, and mode of administration. However, they may vary from them in terms of shape, color, and inactive substances. Like all medications, including branded ones, generic medicines must pass a registration procedure and rigorous requirements to ensure their efficacy, safety, and quality and meet all necessary standards. Additionally, bioequivalence is a crucial need for the licensing of generic medicines. Bioequivalence is investigated to convey clinical comparability between generic medications, and they are original, branded counterparts.

Al Hussaini et al. (2018) found that Generic medications are more affordable than their comparable branded medications and are often used as treatments for numerous acute and chronic illnesses. Thus, using generic medicines lowers medical costs while supporting the healthcare system. Therefore, many private and government payers currently encourage using generic medications as an essential component of the health system by initiating and carrying out various strategies, initiatives, and policies. This is done to address the general expenditure of healthcare and pharmaceutical expenditures. One of the biggest challenges is getting patients to accept generic medications, especially if they are the ones who will ultimately use these pharmaceuticals. Patients must have accurate knowledge, favorable judgment, and comprehension of generic medications. Thus, this study aimed to ascertain how patients viewed branded versus generic drugs in the pharmaceutical sector (Bulsara et al., 2010).

Sharif et al. (2020) found that Non-proprietary names are typically used to sell generic medications. The prompt and proper administration of drugs can guarantee the successful treatment of various ailments and assist patients in delaying or avoiding costly hospital care. The cost of using generic drugs to treat common ailments is reasonable. Controlling illness and its effects requires early and reasonably priced therapy. Significantly, generic medications provide the chance to significantly lower patient healthcare budget expenditures while still providing appropriate treatment for many of the ailments of today. Generic pharmaceuticals are considered safe and cost-effective, although branded medications substantially impact medicine use since they are chemically identical to their branded equivalents. More people may afford therapy thanks to generic medications. In this research, a consumer is someone who purchases pharmaceuticals for their own use or to treat a loved one. Despite the cost advantages, patients and prescribers are highly divided about the therapeutic outcomes and safety profile of generic substitution (moving from a trademark to a comparable generic product, often within the pharmacological class).

El-Dahiyat & Kayyali (2013) said that Consumer views based on their worries about the hazards associated and their opinions surrounding the usage of generic prescription goods had been disregarded in the discussion over whether to utilize branded or generic medications. A fundamental criterion for facilitating the uptake of generic medications is the patient's readiness to receive one. Except for a handful, like Brazil and Malaysia, only a few studies have been conducted in developing nations to examine consumers' perceptions of branded versus generic medications. Additionally, there is little research on how Indian patients feel

about branded and generic medications. Experience, values, and belief systems shape perception, resulting in an optimistic or pessimistic viewpoint.

### **Literature Review**

Colgan et al. (2015) revealed that generic drugs are chemically identical to innovator- or model-number drugs in terms of dosage, form, safety, strength, method of administration, dependability, performance, attributes, and intended purpose. Other manufacturing firms often submit requests to the drug government regulators for permission to market the cheaper copies of the original pharmaceuticals after the patent period for the original product expires. Pharmaceutical brands or non-propriety names are used for marketing generic medications. Branded generic medications are a different expression that is widely used in healthcare companies. It is so named because the medication molecule is marketed under a moniker that combines the maker's name with a non-propriety name. Branded medications typically cost more than generic ones (Sharrad & Hassali, 2011, Alam et al., 2017, 2019). The drug firms employed the same active components while producing generic medications, which have been demonstrated to have the same pharmacological and side effects as their brand-name counterparts. Additionally, generic medications function similarly and for the same length as branded medications and have the same purity, strength, purity, and stability (since they are bioequivalent to innovative compounds). Price protection allows for the development of new medications (Thomas & vitry., 2009).

Babar et al. (2011) studied that Because of financial strain on pharmaceutical expenditures in the manner of out-of-pocket expenses, the usage of generic medications is fast rising worldwide (OOP). Since generic medications are often less expensive than the originator brands, they can reduce healthcare costs. Generic medications cost less than branded ones. Physicians, however, are skeptical about the effectiveness and dependability of generic medications. According to reports from nations in central and eastern Europe, the United States, and the former Soviet Union, marketing strategies used by makers of imported branded pharmaceuticals also help spread the myth that generic drugs are of worse quality (Sansgiry, 2006).

Dhale & Singh. (2020) revealed that Medicines are essential to human development because, when used wisely, they can lower mortality and morbidity rates and enhance the quality of life. The most critical factor limiting access to medications is drug cost. Many nations are dealing with rising healthcare costs. The rising price of medications and their affordability for individuals and governments have become a worldwide issue. Generic medications offer a more affordable option to branded drugs in an era of quickly expanding healthcare expenses. Thus, the use of generic medications, which leads to significant reductions in medical expenditure, addresses availability and cost issues (PANIGRAHY & Chaudhari, 2022). Consequently, many industrialised and developing nations throughout the world have enacted a generic substitution strategy that strives to promote the use of less expensive generic medications (Kohli&Buller. 2013).

Roy & Rana. (2015) found that Generic replacement is not widely used in India, which may be attributed to several causes, such as the lack of generic formulations, the practitioners' mistrust of generic medications due to their perceived poorer quality, and drug fraud. The

Indian government initiated the Jan Aushadhi campaign in April 2008 by being forced to open treasury pharmacies in several states to solve the problem that has a substantial financial impact on the underprivileged people. These pharmacies offer high-quality generic medications at prices that are lower than those of their branded counterparts, making them easily accessible to the average person (Tripathi & Bhattacharya, 2018).

Rathi & Biyani. (2021) revealed that the doctor's prescription has a considerable impact on the usage of generic pharmaceuticals, particularly in developing countries where patients or families would go to great extent to get exactly what is recommended. For several reasons, physicians may choose branded drugs. Many doctors might think that generic medications are less potent and risk-free than their brand-name equivalents. Additionally, generic medications have historically been criticised for being subpar, mostly because of lax adherence to good manufacturing practice norms. Many clinicians might not be aware of the stringent requirements set out by the regulatory authority for demonstrating bioequivalence prior to the approval of a generic drug. Therefore, spotting potential obstacles to expanding generic drug utilisation may be made easier by knowing doctors' perspectives and having a basic grasp of generic medications (Chibueze et al., 2018).

Alam et al., (2017) revealed that Health professionals have little control over the tender-based public health pharmaceutical purchase procedure. As a result, doctors are required to recommend and distribute the pharmaceuticals that are readily available, and patients alternate between brand-name and generic medications, and vice versa, mostly dependent on availability. Contrarily, private sector healthcare practitioners are completely free to recommend and administer either name-brand medications or generic alternatives depending on patient or physician choice or stock levels. In the private industry, medications needed for mild and chronic illnesses can be purchased without a prescription; nevertheless, a number of medications, including psychotropics, corticosteroids, narcotics, antibiotics, and others, need a prescription. The function of the pharmacist has evolved in the health care systems of industrialised countries from that of a just dispenser to that of a career, counsellor, and decision-maker. The last and primary point of contact for patients is the pharmacist. Additionally, as a practising pharmacist, you are required to participate in the multi-disciplinary team and provide patients with advice about doses, anticipated side effects and detrimental impact, and drug-drug interactions.

Picholiya. Et al. (2015) examined that the usage of generic medications can significantly lower prices, and the savings might be put towards other things like buying new, more potent medications. One-third of overall population in the poor countries lacks access to medications. Sometimes brand-name medications' high prices prevent accessibility. Promoting the consumption of generic medications by healthcare professionals is one of the options. Health authorities in several nations throughout the world firmly advocate the use of generic substitutes. Global financial strain on pharma budgets has progressively led to an increase in the usage of generic medications. Both in industrialised and developing nations, incorrect use of pharmaceutical items in healthcare institutions is a prevalent issue. The acceptance and marketing of generic medications by medical professionals has come under scrutiny in recent years, and the use of cheaper prescription and substitute remains debatable.

It has been demonstrated that due to their insufficient understanding and misconceptions, pharmacists, in addition to doctors, hold unfavourable opinions towards prescribing and dispensing generic medications.

Patel. Et al. (2020) revealed that in terms of the quantity of medications exported, the Indian pharmaceutical sector is ranked third. India sends a sizable number of pharmaceuticals to various parts of the world, earning it the nickname "medicine of the world" by other countries. Nearly 80% of all expenditures go towards healthcare. Approximately 86% of that one out expense is attributable to the medications alone. The pharmaceutical industry often produces two different sorts of products from the same ingredient. A branded medicine is one that has the support of physicians, business owners, and pharmacists in addition to having extensive advertising. Generic medication is another option, although it is not sold or pushed. The formation of identical molecules in both medications is an intriguing phenomenon. Consequently, although the two medications' formulas are comparable, the branded one costs far more.

Joshi & Gandhi. (2020) found that the price of prescription drugs has significantly climbed over the past ten years, and drugstore chains are searching for ways to reduce costs by switching to a generic fill rate. Even in India, generic medications have been taken into consideration as a means of enhancing the underprivileged population's access to medications. A generic medication is one that is produced and sold without a patent. Although the generic drug's formulation may be patentable, the active component is not. Generic medications are just as effective as branded medications and have no lower quality than any branded medications. They are identical to all branded medications in every way, including dosage, adverse effects, active components, etc. Before being approved for sale, generic medications must pass all rigorous quality-control checks.

Ghanwant. (2020) revealed that In the United States, managing escalating health care expenditures is a crucial issue that has an impact on governmental organisations, medical professionals, and consumers. The area of health care spending that is fastest expanding is an economic factor on prescription medications. Research anticipated that prescription medication expenditures will account for roughly 14.7% of overall health care expenditure by 2011. Managed care companies promote the adoption of less costly generic medications as a part of their measures to limit rises in the price of prescription medications. The strong pharmaceutical marketing of name-brand medicines, the lack of advertising by generic manufacturers, the prescription habits of doctors, the lack of awareness and counselling by pharmacists, and public anxiety about taking generic pharmaceuticals are some of the hurdles to the use of generic drugs. In order to comprehend and enhance the purchasing behaviour of generic drugs, it may be helpful to understand customers' perspectives about generic medicine use and substitute.

### **Objective**

1. To know the factors that determines the "Perception towards generic and branded medicines."
2. To know the impact of "perception towards generic and branded medicines" on the acceptability of generic medications.

### **Methodology**

The study had considered 213 respondents to know the factors that determines the Perception towards generic and branded medicines and its impact on the acceptability of generic medications. The data of this empirical study was collected through “random sampling method.” The data was analysed by Explanatory Factor Analysis and Multiple Regression Analysis to get the results.

### **Findings**

Table below is sharing general details of the respondents. Among 213 respondents 71.4% are male and rest 28.6% are female. 25.4% in them are below 25 years of age, 40.3% are between 25-35 years of age and rest 34.3% are above 35 years of age. 34.3% of the respondents are graduates and below, 31.0% are postgraduates and above, 24.9% are having professional degree and rest 9.9% of the respondents are having some other educational qualification. 29.1% of the respondents are salaried, 24.9% are in business sector, 18.8% are self-employed, 17.4% are students and rest 9.9% are in another occupational sector.

#### **General Details**

<b>Variables</b>	<b>Respondents</b>	<b>Percentage</b>
<b>Gender</b>		
Male	152	71.4
Female	61	28.6
<b>Total</b>	<b>213</b>	<b>100</b>
<b>Age (years)</b>		
Below 25	54	25.4
25-35	86	40.3
Above 35	73	34.3
<b>Total</b>	<b>213</b>	<b>100</b>
<b>Educational Qualification</b>		
Graduates and below	73	34.3
Post Graduates and above	66	31.0
Professional degree	53	24.9
Others	21	9.9
<b>Total</b>	<b>213</b>	<b>100</b>
<b>Occupation</b>		
Salaried	62	29.1
Business	53	24.9
Self employed	40	18.8
Student	37	17.4
Others	21	9.9
<b>Total</b>	<b>213</b>	<b>100</b>

### “Factor Analysis”

#### “KMO and Bartlett's Test”

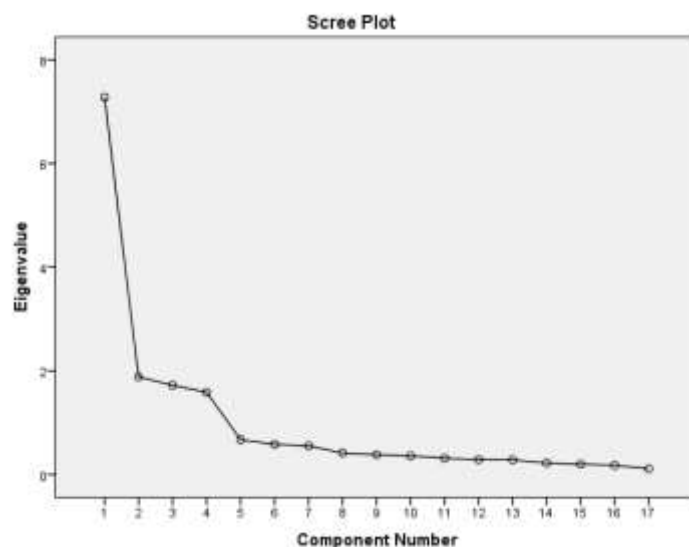
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.872
Bartlett's Test of Sphericity	Approx. Chi-Square	2378.940
	df	136
	Sig.	.000

In table above “KMO and Bartlett's Test” above, KMO value found is .872.

#### “Total Variance Explained”

“Component”	“Initial Eigenvalues”			“Rotation Sums of Squared Loadings”		
	“Total”	“% Of Variance”	Cumulative %	“Total”	“% Of Variance”	Cumulative %
1	7.280	42.821	42.821	3.460	<b>20.351</b>	20.351
2	1.882	11.070	53.891	3.152	<b>18.543</b>	38.894
3	1.720	10.118	64.009	2.930	<b>17.238</b>	56.132
4	1.585	9.324	73.333	2.924	<b>17.202</b>	<b>73.333</b>
5	.670	3.943	77.276			
6	.581	3.416	80.692			
7	.551	3.243	83.935			
8	.413	2.429	86.364			
9	.379	2.232	88.596			
10	.357	2.100	90.695			
11	.314	1.845	92.541			
12	.286	1.682	94.223			
13	.280	1.644	95.867			
14	.219	1.290	97.157			
15	.199	1.168	98.325			
16	.175	1.032	99.357			
17	.109	.643	100.000			

All the 4 factors explain total 73% of the variance. The variance explained by first factor is 20.351% followed by the second Factor with 18.543%, third Factor having 17.238% and fourth factor explains 17.202% of variance.



S. No.	Statements	Factor Loading	Factor Reliability
	<b>Doctor's prescription</b>		<b>.894</b>
1.	Some doctors think generic medications are less potent	.873	
2.	Generic medicines are risk-free than their brand-name equivalents	.846	
3.	Generic alternatives depend on patient or physician choice	.797	
4.	Practitioners' mistrust of generic medications due to their perceived poorer quality and drug fraud	.700	
5.	Doctors are not in habit of prescribing generic medicines	.673	
	<b>Regulations and Initiatives</b>		<b>.885</b>
6.	Generic medicines must pass a registration procedure	.857	
7.	Essential to ensure efficacy, safety, and quality and meet all necessary standards	.825	
8.	Bioequivalence is a crucial need for the licensing of generic medicines	.788	
9.	Health system needs to initiate and carry out various strategies, initiatives, and policies to promote generic drugs	.784	
	<b>Cost of generic medicines</b>		<b>.875</b>
10.	Generic medications are often less expensive than the originator brands	.820	
11.	generic medicines reduce healthcare costs	.792	
12.	Generic medications cost less than branded ones	.774	
13.	Generic medications offer a more affordable option to branded drugs	.763	
	<b>Marketing and Awareness</b>		<b>.854</b>



14.	Lack of advertising by generic manufacturers	.843	
15.	Lack of awareness and counselling by pharmacists	.826	
16.	People are anxious about taking generic pharmaceuticals	.753	
17.	Generic drugs are produced and sold without a patent	.714	

### **Development of the factors**

First factor is Doctor's prescription which includes the variables Some doctors think generic medications are less potent, Generic medicines are risk-free than their brand-name equivalents, Generic alternatives depend on patient or physician choice, Practitioners' mistrust of generic medications due to their perceived poorer quality and drug fraud and Doctors are not in habit of prescribing generic medicines. Second factor is Regulations and Initiatives and its associated variables are Generic medicines must pass a registration procedure, Essential to ensure efficacy, safety, and quality and meet all necessary standards, Bioequivalence is a crucial need for the licensing of generic medicines and Health system needs to initiate and carry out various strategies, initiatives, and policies to promote generic drugs. Third factor is named as Cost of generic medicines which includes the variables like Generic medications are often less expensive than the originator brands, generic medicines reduce healthcare costs, Generic medications cost less than branded ones and Generic medications offer a more affordable option to branded drugs. Fourth factor is Marketing and Awareness, and its associated variables are Lack of advertising by generic manufacturers, Lack of awareness and counselling by pharmacists, People are anxious about taking generic pharmaceuticals and Generic drugs are produced and sold without a patent.

Total reliability of 17 items that includes the variables related to “perception towards generic and branded medicines” is 0.915.

### **Multiple Regression Analysis**

#### **“Model Summary”**

“Model”	“R”	“R Square”	“Adjusted R Square”	“Std. Error of the Estimate”
1	.759 <sup>a</sup>	.576	.568	.57675
IDV: Doctor's prescription, Regulations and Initiatives, Cost of generic medicines and Marketing and Awareness				

In Multiple Regression analysis, the value of Adjusted R square is 0.576 with 57% of the variation.

#### **“ANOVA<sup>a</sup>”**

“Model”		“Sum of Squares”	“df”	“Mean Square”	“F”	“Sig.”
1	“Regression”	94.117	4	23.529	70.736	.000 <sup>b</sup>

	Residual	69.188	208	.333		
	Total	163.305	212			
DV: Impact of “perception towards generic and branded medicines” on the acceptability of generic medications						
b. Predictors: (Constant), Doctor's prescription, Regulations and Initiatives, Cost of generic medicines and Marketing and Awareness						

Dependent variable is influenced by more than 1 independent variable with significant value less than 0.05.

**“Coefficients<sup>a</sup>”**

“Model”	“Unstandardized Coefficient”		“Standardized Coefficients”	“t”	“Sig.”
	“B”	“Std. Error”	“Beta”		
(Constant)	3.756	.040		95.042	.000
Doctor's prescription	.620	.040	.706	15.641	.000
Regulations and Initiatives	.080	.040	.091	2.020	.045
Cost of generic medicines	.196	.040	.224	4.958	.000
Marketing and Awareness	.123	.040	.140	3.107	.002
DV: Impact of “perception towards generic and branded medicines” on the acceptability of generic medications					

Doctor's prescription, Cost of generic medicines, Marketing and Awareness and Regulations and Initiatives all the factors are showing significant impact of “perception towards generic and branded medicines” on the acceptability of generic medications. Highest impact is shown by Doctor's prescription with beta value 0.706 followed by Cost of generic medicines (0.224), Marketing and Awareness (0.140) and Regulations and Initiatives with beta value 0.91.

### Conclusion

The cost of prescription drugs is a major issue worldwide. Only a small minority of individuals choose to have health insurance, and over 70% of people pay for healthcare costs out of their own pockets. Generic medications are gaining popularity practically everywhere in the globe, whether in wealthy or poor nations, as healthcare expenses rise. Branded and generic medications might be very different from one another. A low-priced, subpar generic medication is traded between almost 200 nations worldwide. Equal access to and availability of high-quality medications for their own population is a problem for many nations. The government of various nations is setting up stores that are only allowed to sell generic medications. When compared to competing brand names on the market, they provide high-quality generic medications at affordable pricing. According to the study's findings,

affordability, awareness and knowledge, efficacy, safety and quality, and availability of the medications are the elements that most strongly influence “patients' perceptions of generic and branded medicines” in the pharmaceutical industry.

It is found through the study that Doctor's prescription, Regulations and Initiatives, Cost of generic medicines and Marketing and Awareness are the factors that determines the “Perception towards generic and branded medicines.” The study concludes that there is significant impact of “perception towards generic and branded medicines” on the acceptability of generic medications.

## References

1. Al Hussaini, M., Alsaffar, N., & Abdulraheem, A. (2018). Exploring community pharmacists' knowledge, perception and experiences towards branded and generic medicines in Kuwait: Highlighting the role of pharmacist. *Bulletin of Faculty of Pharmacy, Cairo University*, 56(1), 109–114.
2. Alam, M. M., Mittal, A., & Chawla, D. (2017). Evaluating patients' perception towards generic and branded medicines: A segmentation approach. *Journal of Generic Medicines: The Business Journal for the Generic Medicines Sector*, 13(4), 184–192.
3. Alam, M., Mittal, A., & Chawla, D. (2017). Evaluating patients' perception towards generic and branded medicines: A segmentation approach. *Journal Of Generic Medicines*, 13(4), 184-192. doi: 10.1177/1741134317737925
4. Alam, M., Mittal, A., & Chawla, D. (2019). Patients' Perception Towards Branded and Generic Medicines in an Emerging Economy: A Scale Development and Validation Study. *Global Business Review*, 20(5), 1292-1310. doi: 10.1177/0972150919846812
5. Babar, Z.-U.-D., Grover, P., Stewart, J., Hogg, M., Short, L., Seo, H. G., & Rew, A. (2011). Evaluating pharmacists' views, knowledge, and perception regarding generic medicines in New Zealand. *Research in Social and Administrative Pharmacy*, 7(3), 294–305.
6. Bulsara, C., McKenzie, A., Sanfilippo, F., Holman, C. D. A., & Emery, J. E. (2010). 'not The full monty': A qualitative study of seniors' perceptions of generic medicines in Western Australia. *Australian Journal of Primary Health*, 16(3).
7. Chibueze, A., Abdulmuminu, I., Nnanyelugo Ogechukwu, I., & Amos Azubuike, E. (2018). Perception toward generic drug products: A cross-sectional study among undergraduate pharmacy students of the University of Nigeria. *Journal of Generic Medicines: The Business Journal for the Generic Medicines Sector*, 14(3), 109–116.
8. Colgan, S., Faasse, K., Martin, L. R., Stephens, M. H., Grey, A., & Petrie, K. J. (2015). Perceptions of generic medication in the general population, doctors and pharmacists: A systematic review. *BMJ Open*, 5(12).
9. Dhale & Singh. (2020). Perception of Medical Professionals and Pharmacists towards Generic and Branded Drugs. 14(4).

10. El-Dahiyat, F. A., & Kayyali, R. (2013). Community pharmacists' perceptions towards generic medicines and their opinions on future generic substitution policy implementation: A descriptive study from Jordan. *Journal of Generic Medicines: The Business Journal for the Generic Medicines Sector*, 10(2), 97–104.
11. Ghanwat, A., Atakale, M. A., Shinde, A., Yedge, V. & Nerkar, A. (2020). Generic Drugs Vs Branded Drugs View of Public. *Current Trends in Pharmacy and Pharmaceutical Chemistry*, 2(2), 33-38.
12. Joshi, R. and Gandhi, A. (2020). Consumer Perception of Generic Drugs in Comparison to Branded Drugs: A qualitative Study, *Psychology And Education* (2021) 58(4): 2388-2398.
13. Kohli, E., & Buller, A. (2013). Factors Influencing Consumer Purchasing Patterns of Generic Versus Brand Name Over-the-Counter Drugs. *Southern Medical Journal*, 106(2):155-160.
14. PANIGRAHY, S. N. E. H. A., & Chaudhari, S. (2022). Knowledge and perceptions of generic drugs: A Cross Sectional Study. *Journal of Drug Delivery and Therapeutics*, 12(2-S), 53–57.
15. Patel, K.; Yasobant, S.; Charan, J.; Chaudhari, M.; Gaidhane, A.; and Saxena, D. (2020). Acceptability and Perceptions of Generic Drugs among Patients, Pharmacists, and Physicians. *Journal of Pharmaceutical Research International*, 32(33): 40- 47.
16. Pichholiya, M.; Basu, A.; Yadav, A.K. , Kothari, N. and Tahashildar, J. (2015). An observational comparative study of cost between branded medicines and generic medicines. *International Journal of Basic & Clinical Pharmacology*, 4(2), 269-272.
17. Rathi, H., & Biyani, M. (2021). KNOWLEDGE, ATTITUDE, AND PERCEPTION OF INDIAN POPULATION ABOUT GENERIC VERSUS BRANDED MEDICINES: A WEB-BASED STUDY. 14(2).
18. Sangsiry, S. (2006). Consumer perceptions regarding generic drug substitution: *Journal of Pharmaceutical Marketing & Management*, 17(1), 77–91.
19. Sharif, S. I., Aldayeh, S., Alsomali, H., & Hayat, F. (2020). Assessment of the knowledge and perception of generic medications among pharmacy and medical students in the University of Sharjah, United Arab Emirates. *Journal of Generic Medicines: The Business Journal for the Generic Medicines Sector*, 16(3), 120–128.
20. Sharrad, A. K., & Hassali, M. A. (2011). Consumer perception on generic medicines in Basrah, Iraq: Preliminary findings from a qualitative study. *Research in Social and Administrative Pharmacy*, 7(1), 108–112.
21. Thomas, R., & Vitry, A. (2019). Consumers' perception of generic medicines in community pharmacies in Malaysia. 2(2).
22. Tripathi, S., & Bhattacharya, S. (2018). Patient perception about generic vs. branded medicines prescribed in a tertiary care hospital in northern India -A descriptive study. *Indian Journal of Pharmacy Practice*, 11(2), 91–95.

