

PRADHAN MANTRI JANAUSHADHI SCHEME AND CONSUMER BUYING BEHAVIOUR TOWARDS NON-PATENTED MEDICINES IN JAIPUR, CITY OF RAJASTHAN

Dr. Rishi Dev^a, Dr. Kiran Kumari^b

^a Assistant Professor (Visiting Faculty), Maharashtra National Law University, Mumbai
(Maharashtra, India)

^b Assistant professor, Mody University of Science & Technology, Lakshmanagarh, Dist. Sikar
(Rajasthan., India)

ABSTRACT

This research paper is about knowing the consumer buying behaviour towards Non-patented medicines in Jaipur, City of Rajasthan. This study is based on questionnaire, distributed in Jaipur City of Rajasthan to get the knowledge and perception of consumers about generic drug consumption i.e. quality, efficacy, safety and availability etc. In year 2021, 89% of the Physicians prescriptions in the United States filled with the non-patented medicines. The belief held by customers regarding the efficacy of generic medications is a gray area. Nevertheless, the fact that non-patented and branded medications share the same chemical composition. Regional and socioeconomic awareness of this issue is aided by the market availability of high-quality generic medications. Individuals from diverse communities would benefit from the government's effort to reduce out-of-pocket costs associated with expensive medications by establishing Pradhan Mantri Janaushadhi Kendras (PMJAK) around the nation to promote generic medications. The goal is to guarantee that customers, who frequently overlook the potentially harmful effects on their health due to the high price of branded medications, have access to an adequate healthcare system. With 20% of the world's supply by volume and over 50% of the demand for different vaccinations, India is the world's top provider of non-patented medicines. It supplies 25% of all medicine in the United Kingdom and 40% of the demand for generics in the United States. A new policy on generic medications has been implemented by the Indian government. On June 1, 2019, the 56th meeting of the Drugs Consultative Committee was held in Delhi. As per recent amendment in Drug and cosmetic Act 1945, Private and Government medical practitioners will now write prescription by generic name to the patients. Government aim is

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to reduce out-of-pocket expenditure on medicines. There is still a widespread belief among physicians that generic medications are of worse quality than branded ones. Due to lower profit margins, pharmacists choose not to stock generic versions of medications in their retail stores. It was mandated by the Indian government that all pharmacies carry non-patented medicines under the inexpensive drive initiative. Thus, the goal of the current study is to ascertain Indian consumers' perceptions and levels of knowledge regarding the use of non-patented medicines.

Keywords: Non-patented medicines, Generic substitution & Branded drugs.

1. INTRODUCTION

The healthcare sector is the largest in terms of employment and revenue generation, and it is expanding at a rapid rate. The Indian pharmaceutical market grew at an annual rate of 17.7% in August 2021, compared to 13.7% in July 2020. The Indian pharmaceutical industry received U.S. dollar 18.12 billion in foreign direct investments (FDI) between April 2000 and June 2021. Up to US\$130 million in foreign direct investment (FDI) entered the Indian pharmaceutical industry in the fiscal year 2021.

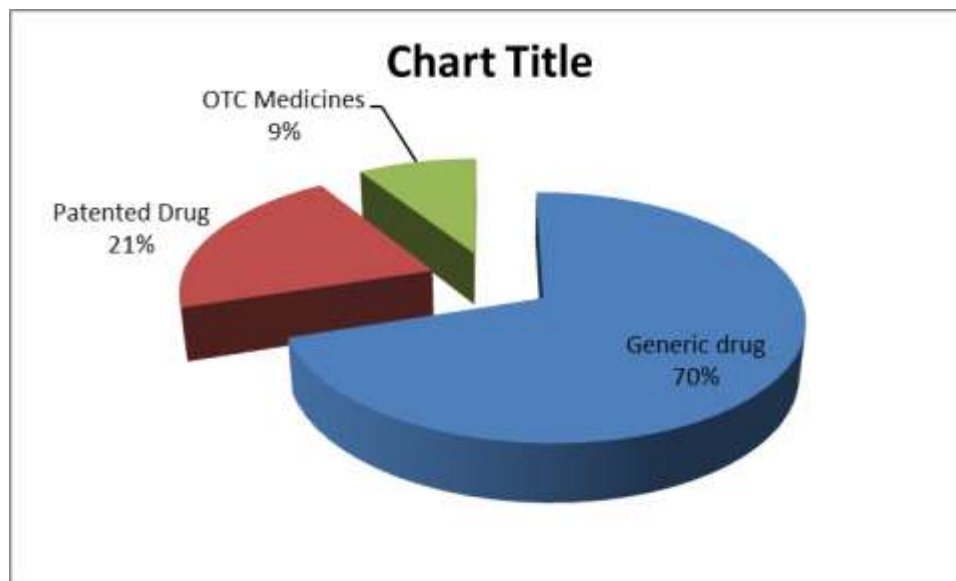


Figure 1: Indian Pharmaceutical Revenue share in 2015 (in %) (Sanyukta, 2021)

Source: Business Monitor International, FCCI Indian Pharma Summit 2014-15, Tech. Sci. Research [1]

India Ratings & Research projects that during the Financial Year 2022, the Indian pharmaceutical market will generate revenue that will rise by more than 12% annually. Forty percent of the demand for generic medications in the United States comes from the Indian pharmaceutical business. India ranks thirteenth in terms of value and third in terms of volume among all countries that produce pharmaceuticals. The domestic pharmaceutical sector is comprised of 10,500 manufacturing facilities and 3,000 pharmaceutical businesses. The pharmaceutical business is flourishing in India. The domestic pharmaceutical market in India is anticipated to develop, reaching US\$ 42 billion by 2021, US\$ 65 billion by 2024, and US\$ 120–130 billion by 2030. In terms of revenue, 70% of the Indian pharmaceutical sector is made up of branded generic medications. Similar to this, other patented medications hold a 21% market share, while over-the-counter (OTC) medications make up 9% of the USD 20 billion in total sales of the Indian pharmaceutical industry. According to Frost & Sullivan, LSI Financial Services, prudent use of pharmaceuticals has a key impact in lowering mortality and morbidity rates while also improving quality of life. Many countries are struggling with increase in health-care costs.

The rising cost of branded medications and the ability to afford them has become a global concern for both consumers and governments. A mandatory generic drug substitution strategy aids in resolving the issue of medical affordability and availability. According to the World Health Organization, roughly 30% of the world's population lacks access to vital medicines. The main reason for limited access to critical medicines is raising pharmaceutical company costs and a lack of strong policy measures by government initiatives in Low Countries states.

India ranks 12th globally in terms of medical goods exports. India is a major exporter of pharmaceuticals to more than 200 countries worldwide, with the US being the main destination. The nation is the world's leading supplier of non-patented medicines, contributing up 20% of total global exports in terms of volume. India exported \$3.76 billion worth of medications and pharmaceuticals in April and May of 2021. Between April 2000 and March 2021, the Indian pharmaceutical and medical business received FDI worth US\$ 17.99 billion. The Indian government has implemented several measures aimed at reducing expenses, particularly in healthcare. It has remained a goal to get non-patented medicines onto the market as soon as possible, which will probably benefit Indian pharmaceutical companies. Rise in Generics medicines:

Non-patented medicines played a vital role in decreasing the health care expenditure for a long time. Various studies have shown that saving about 10-90% are often achieved through generic drug substitution of innovator brands.

Essential medicine procurement prices in India are often less than the mean International Reference Pricing (IRP), but their availability in the public sector has always been a challenge. Most impoverished people cannot afford the expensive prices of several commonly used medications at private pharmacies. Furthermore, there was a significant twenty-eight times differential in the purchase and retail costs of generic medications. In 2012, in response to this, the government modified the National Pharmaceutical Pricing Policy. The formula it offered used a market-based pricing approach that considered the prices of all manufacturers having a national market share of more than 1% to determine the ceiling prices under the National List of Essential Medicines (NLEM).

The Drug Price Control Authority issued an order in 2013 that set a price ceiling for 348 medications and over 600 formulations as a follow-up to the national pharmaceutical pricing strategy. The Indian pharmaceutical industry's multitudinous brands and producers make it difficult to understand genuine market dynamics and structural difficulties. India became a centre for the manufacturing of generic medications as a result of the complex market and intense competition amongst firms.

Indian Pharmaceutical Industry:

India became a centre for the manufacturing of generic medications as a result of the complex market and intense competition amongst firms. Indian Patents Office and The Supreme Court of India used some flexibility of TRIPS Agreement (Trade Related Aspects of Intellectual Property Rights). The compulsory licencing policy for the medicine Sorafenib, which is used to treat liver illness and renal cancer, and the rejection of a patent application for the drug Imatinib, which is used to treat leukaemia, were both landmark decisions made by the Indian government in the pharmaceutical sector.

In the Indian context, brands can be categorized as least-priced generics (LPG), innovator brands (IB), and most-selling generics (MSG). Innovation brands (IB) will be the priciest items, with least-priced generics (LPG) and most-selling generics (MSG) coming in second and third,

respectively. A brand-new kind of generic medication called unbranded generics (UB) is currently available. Most of these pharmaceutical products are either subsidized by non-governmental organizations (NGO) or manufactured by non-profit organizations. Although the price point of these various medicine categories varies as par their efficacies. Even if the effectiveness of pharmaceuticals varies little between different kinds, doctors nonetheless prefer to prescribe products manufactured by reputable companies. Their faith is frequently misplaced, as the majority of these well-known corporations sell pharmaceuticals made by lesser-known companies. Multiple researches across the world have confirmed this, and there is not much difference in efficacy between the above categories of drugs Physicians tend to prescribe drugs manufactured by highly-reputed companies. Their trust is breached as most of these leading companies' market drugs manufactured by less-known manufacturers.

2. REVIEW OF LITERATURE

2.1 Effect of perceived quality on Non-patented medicines:

(Singal & Nanda, 2010) in their research paper "Assessment of cost and quality of some branded versus branded-non-patented medicines of a similar manufacturer in India", the researcher did the study about non-patented medicines, which helps consumers in cost savings in healthcare expenditure. Non-patented medicines prescriptions are considerably lower in cost than the patented drugs. Although the non-patented medicines are bioequivalent to patented drugs, yet it is believed by few consumers that non-patented medicines are poor in quality and having less therapeutic efficacy to the innovators drugs. This investigation shows that both the branded and branded-non-patented medicines are indistinguishably same in quality and remedial adequacy in this way Non-patented medicines satisfy every one of the criteria endorsed by the statutory norms and principles.

2.2 Evaluation of patient perception towards generics drug substitution:

2.2.1 (Hakonsen & Toverud, 2012) have developed a study on patient perspectives on generics substitution, this writing survey recommends that in spite of the fact that generics substitution is all around acknowledged by the larger part of patients, but few patients' encounters negative report towards non-patented medicines. The point of this writing survey is to outlines the consequences of concentrates on the patient's viewpoints of generics substitution. So the requirement of further

research on the behaviour of consumers and knowledge towards these medicines use was done. Purchaser's acknowledgment of generics prescriptions substitution is affected by age, perceptions of disease, income, education level and who educated them about the change. Moreover, poor consciousness of non-patented medicines substitution is related with perplexity which decreases the patients' capacity to accept their medicine as endorsed. The analysis recommends continuing education on non-patented medicines to consumers and an increased physician's & pharmacist's involvement.

2.2.2 (Das et al., 2017) in some places of the world, non-patented medication prescriptions is widely accepted. However, for a variety of reasons, including inaccessibility, efficacy, and product quality concerns, it has failed to gain traction in India. Within the grounds of government hospitals, the West Bengal government opened exclusive generic drug pharmacies in 2012 under the name FPMS, or "fair price medicine shop." The state's recommendations on the prescription of non-patented medicines are encouraging, and a large-scale, comprehensive implementation of this policy is also necessary. The view of patients with respect to quality, efficacy and safety needs of non-patented medicines were comparable to that of patented drugs. Consequently, generic drug accessibility ought to be guaranteed in "fair price medicine shop" by the policy-makers. Endeavors ought to likewise be made to receive a similar model in different conditions of the nation to empower more extensive advantages on generic drug prescription. In this examination researcher found that above ninety percent of the patients believed that the non-patented medicines were similar to branded drugs on quality, efficacy and safety parameters.

3. RESEARCH METHODOLOGY

3.1 Objective

A pilot survey was conducted to explore the consumer's awareness towards non-patented medicines in Jaipur city of Rajasthan. This paper also aimed to investigate the various influencing factors contributing to an individual's choice decision about non-patented medicine in pharmaceutical market.

4. METHODOLOGY

4.1 Data Collection: Jaipur city, state of Rajasthan, served as the site of data collecting for this investigation. Five hundred people answered a questionnaire intended to gather both qualitative and quantitative survey data. The information was gathered via questionnaire surveys. The questionnaire's questions were well-represented and targeted at the goals of the study.

4.2. Sampling Plan: 390 consumers sample was selected in Jaipur city based on sample size calculation. It is estimated that 50% people usually buy non-patented medicines every day. The following formula was used to collect the sample size:

$$n = t^2 \times p(1-p) / m^2$$

n = required sample size

t = confidence level at 95% (standard value of 1.96)

p = estimated percentage of non-patented medicines buyers (50/100 = 0.5)

m = relative precision at 5% (standard value of 0.05)

$$n = (1.96)^2 \times 0.5 \times (1-0.5) / (0.05)^2 = 384$$

4.1 Research Design: Descriptive research is included in the study to identify and assess the different advertising methods used by the pharmaceutical business to sway consumer preferences about the choice of generic medications at pharmacies or retail stores. The age-classified population that was included in the study to conduct descriptive research is discussed in this publication. The target audience is made up of literate individuals who will be asked about their thoughts on branded and generic medications in Jaipur. The research design utilized was descriptive.

4.2 Data Source: Convenience sampling was used. Sample size comprises of 390 respondents from Jaipur city. Secondary data comprises of paper published in renowned journals, articles and internet source.

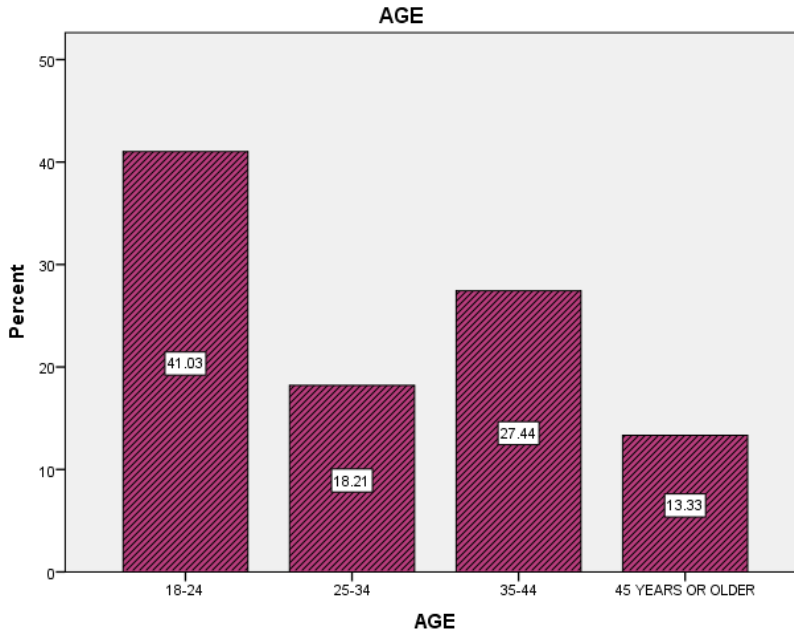
4.3 Material and Method: A questionnaire based survey was conducted among the literate people to know about their opinion towards the non-patented medicines in Jaipur city. Statistical software (SPSS, version 20) tool was used for data analysis.

4.4 Limitations of the study: This study's limitation is that, because the survey was only carried out in Jaipur, the findings cannot be applied to the entire state of Rajasthan.

4. DATA ANALYSIS AND INTERPRETATION

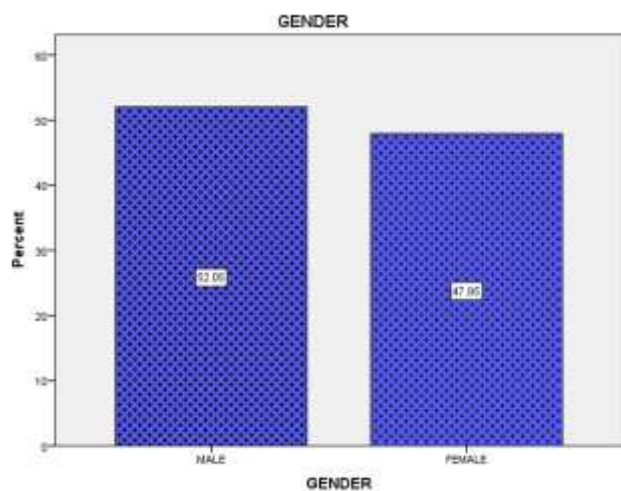
1. Demographic profile of the patients

Age profile of the patients



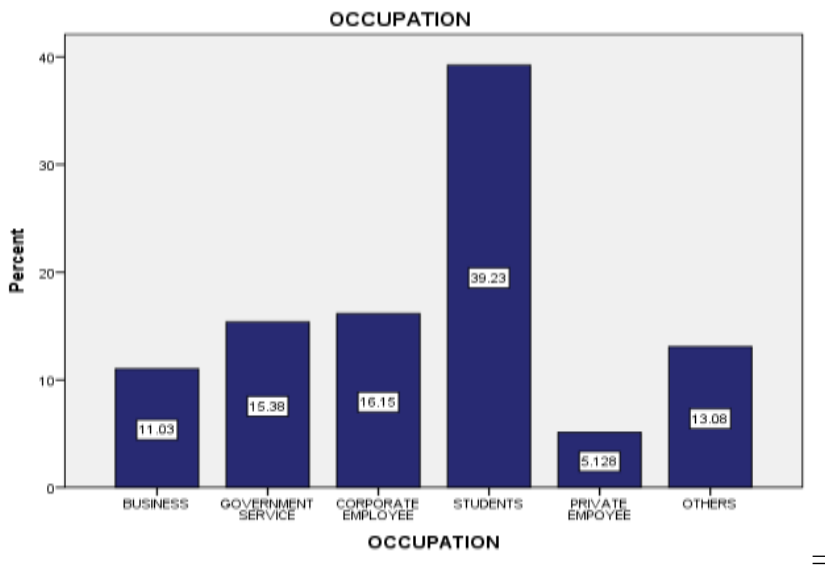
Inference: Across all the selected cities, 41.03 % patients were from the age range of 18-24 years, 27.44 % of patients were of the age range of 35-44 years and 18.21 % patients were of the age range of 25-34 years.

2. Gender of the patients



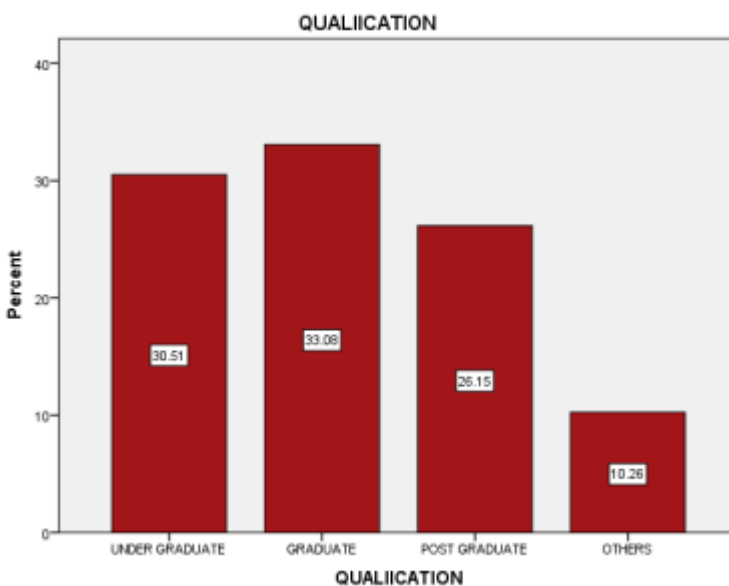
Inference: In all the selected cities, 52.05 % male patients and 47.95 % female patients were surveyed.

3. Occupation of the patients



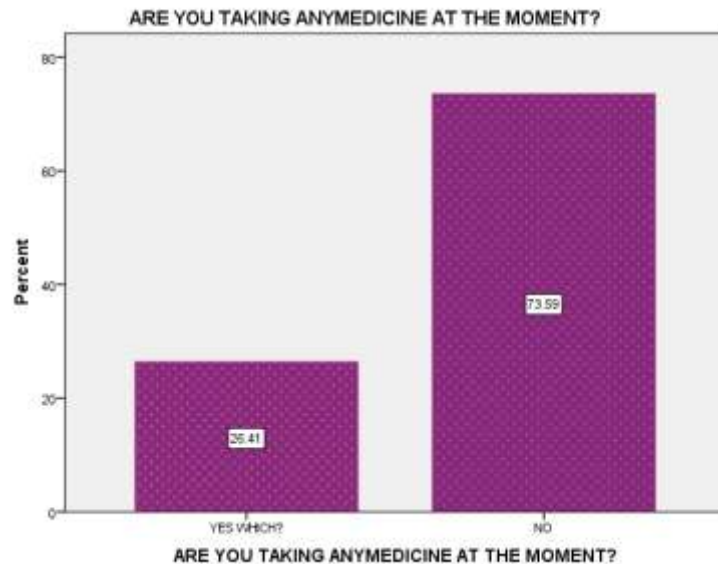
Across all the selected cities, 39.23 % of the patients that surveyed were students, 16.15 % patients were corporate employee , 15.38% patients were government service holder,13.08% patients were in others occupation category, 11.03% patients were in business and 5.128 % patients were in private firm.

4. Qualification of the patients



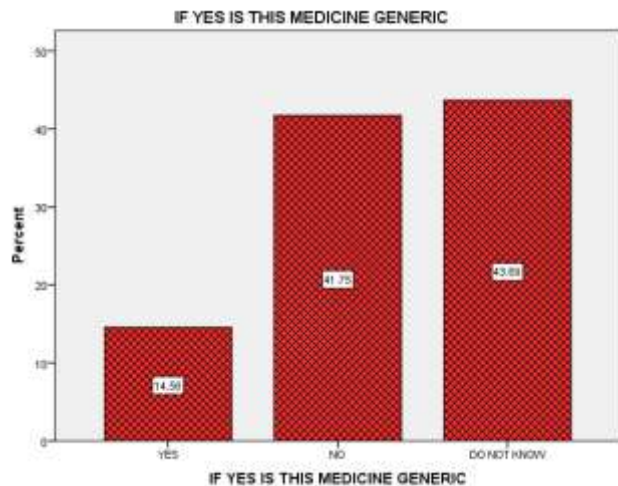
Inference: Across all the selected cities, 33.08% patients were graduates, 30.51% were under graduates, 26.15% patients were post-graduate and 10.26% patients were in others category.

5. Are you taking any medicine at the moment?



Inference: In our study we found that out of 390 consumers only 26.41% of consumers were taking medicines and 73.59% of population said that they are not consuming any kind of medicines.

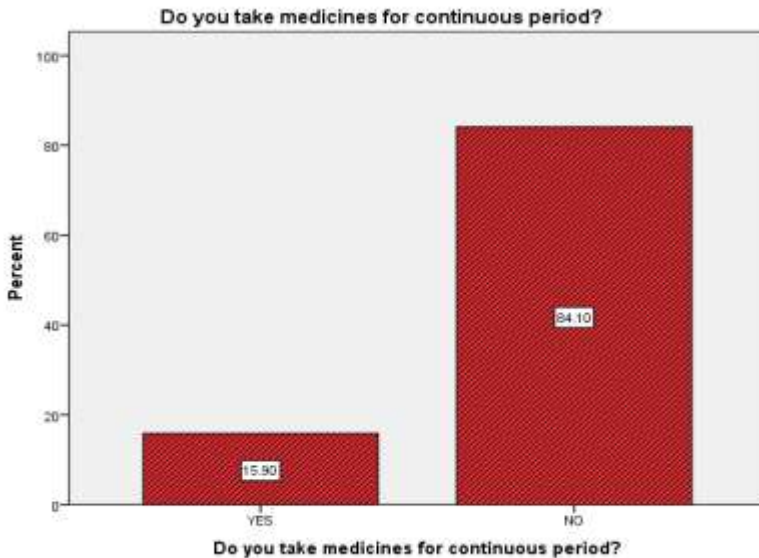
If yes is this medicine generic?



Inference: Figure represents that the knowledge about Non-patented medicines to substitute their Brand Medicine. A great percentage of the consumers (43.69%) do not know that there is a

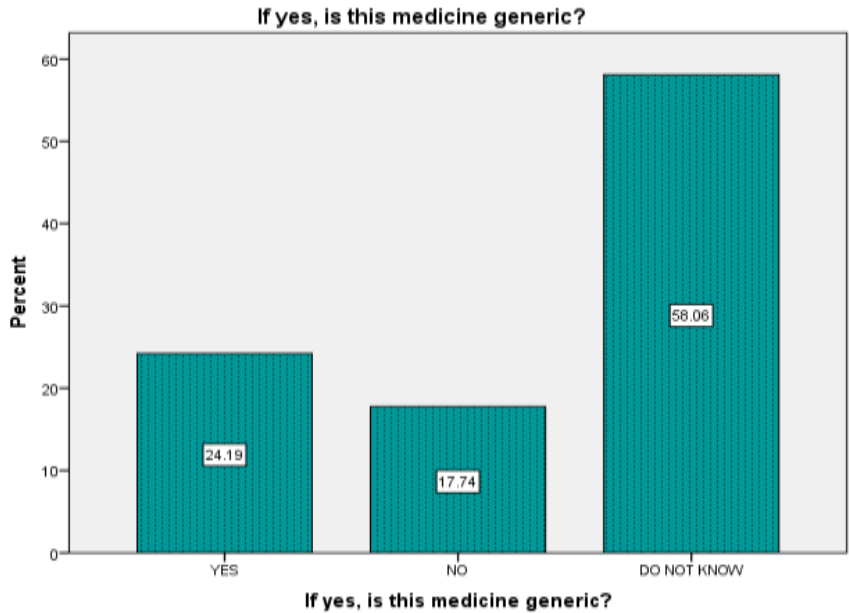
Generic substitution for their medication, although they still follow a Brand Medicine treatment. Although 41.75% consumers said that there is no Generic substitution for their treatment, which can be a justification to keep using Brand Medicines. It is also possible to observe that only 14.56% of consumers know about the existence of Non-patented medicines to follow a treatment with that.

6. Do you take medicines for continuous period?



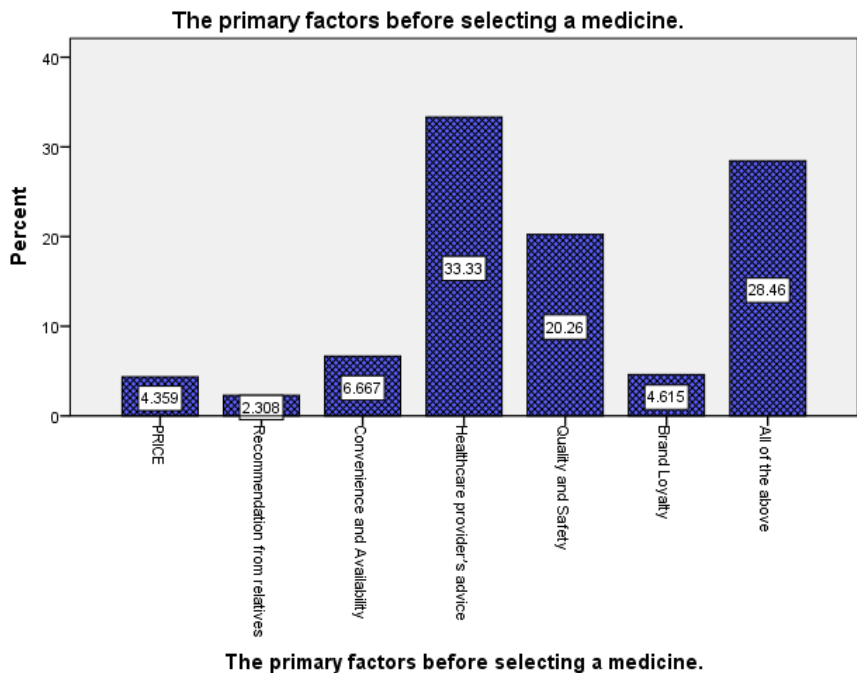
Inference: Figure represents that the great percentage of the consumers (84.10%) do not consume medicines for continuous period. Only 15.90 % of population said yes that they take medicine for continuous period

If yes, is this medicine generic?



Inference: Among all patients, 24.19% of them knew about the difference between generic and branded medicines. More than 50 percent of populations were not aware about the medicine type.

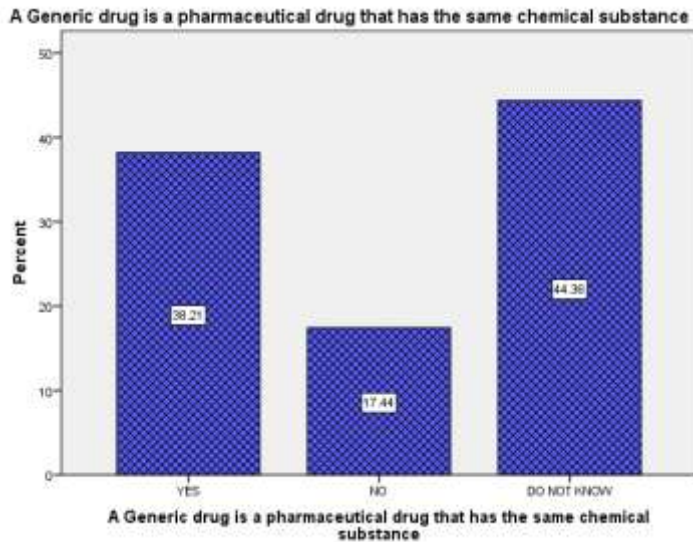
7. The primary factors before selecting a medicine.



Inference: Regarding primary factors before selecting a medicine, nearly more than one-fourth of participants responded that the primary factor for buying non-patented medicines were healthcare

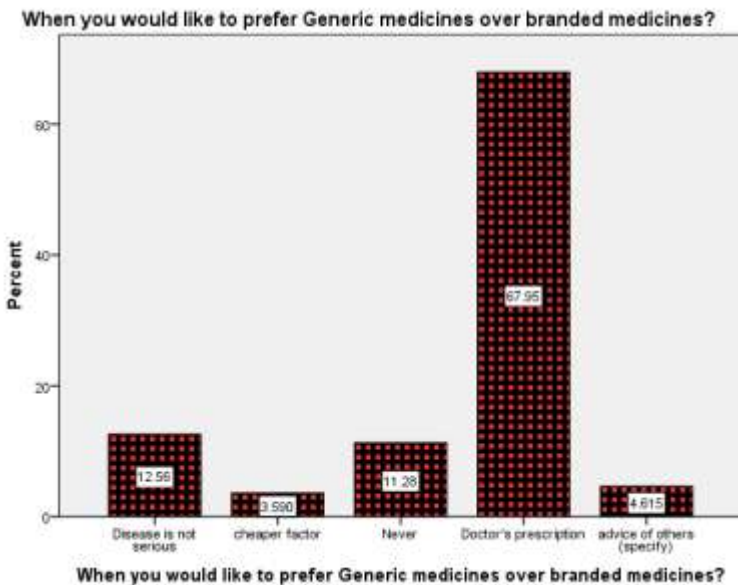
providers advice and more than one-fourth of participants responded for all of the choices like price, brand loyalty, quality, safty,availability and recommendations from family or relatives.

8. A Non-Patented medicines is a pharmaceutical product that has similar chemical substance.



Inference: From the results obtained above more than one-fourth of participants i.e. 38.21 % of populations were aware about the fact that the non-patented medicines have similar chemical substance. Only 17.44 % respondents said “No” about the fact that the non-patented medicines have similar chemical substance. They feel that non-patented medicines differs in price, quality, safety and etc

9. When you would like to prefer Non-patented medicines over branded medicines?



Inference: From the results obtained above, More than 60% of consumers agreed to purchase non-patented medicines as prescribed by doctors.

10. Whenever it is possible, I would like to buy Generic prescription drug products.

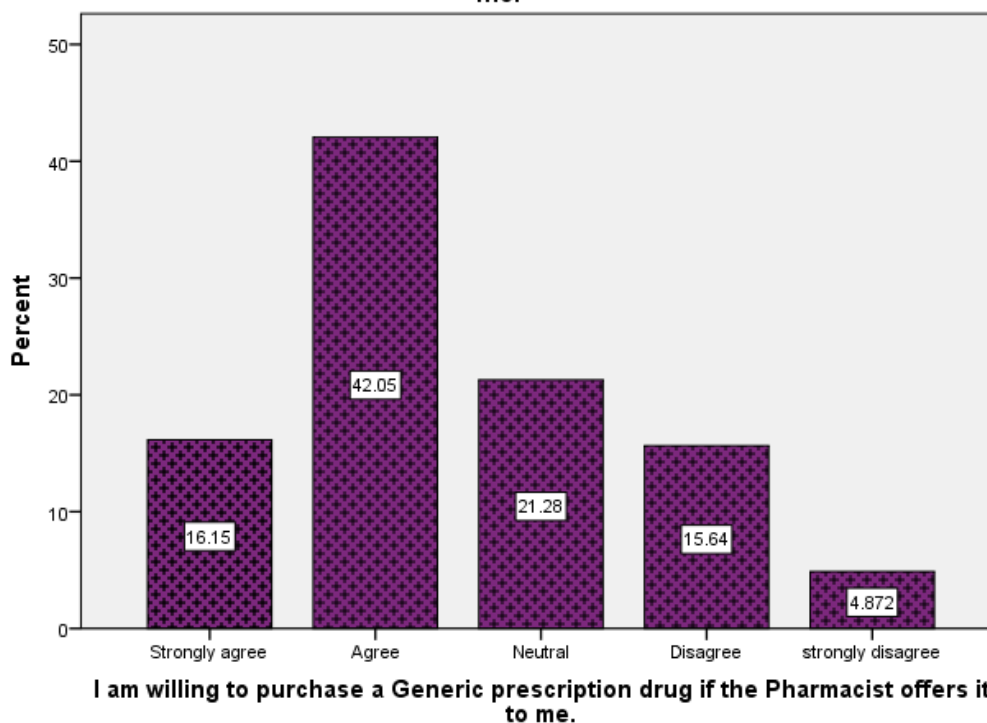


Inference: From the results obtained, measures a respondent’s willingness to purchase generic prescription drugs, 36.41% of consumers agree that whenever it is possible, I would like to buy

Generic prescription drug products. 34.10% of consumers were neutrally influence by that specific situation, while only 5.897.0% and 9.744% of participants were disagree and strongly disagree respectively. Only 13.85% of consumers showed strongly agreeableness towards purchasing non-patented medicines.

11. I would like to purchase a Generic name prescribed medicine if the Pharmacist offers it to me

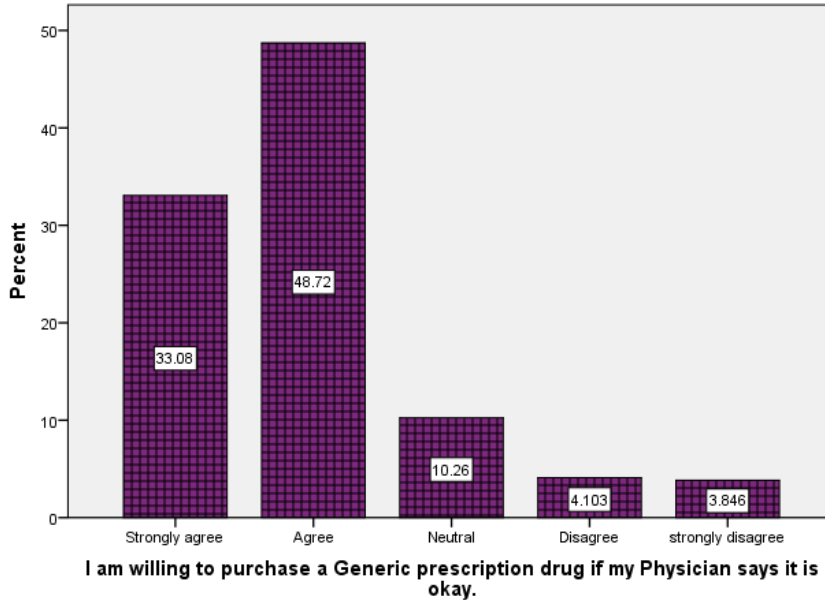
I am willing to purchase a Generic prescription drug if the Pharmacist offers it to me.



Inference: The result of this study (42.05 %) shows that Patients also, sometimes, do ask for a generic version of the prescribed medicine because non-patented medicines are relatively cheaper. Sometimes they do ask for the substitute medicines having same efficacy and relatively more cost effective, in case the prescribed one is not available with the local pharmacist. The majority (42.05%) of the consumers responded that chemist prefers branded medicine for selling.

12. I would like to purchase a Generic name prescribed medicine if my Physician says it is okay.

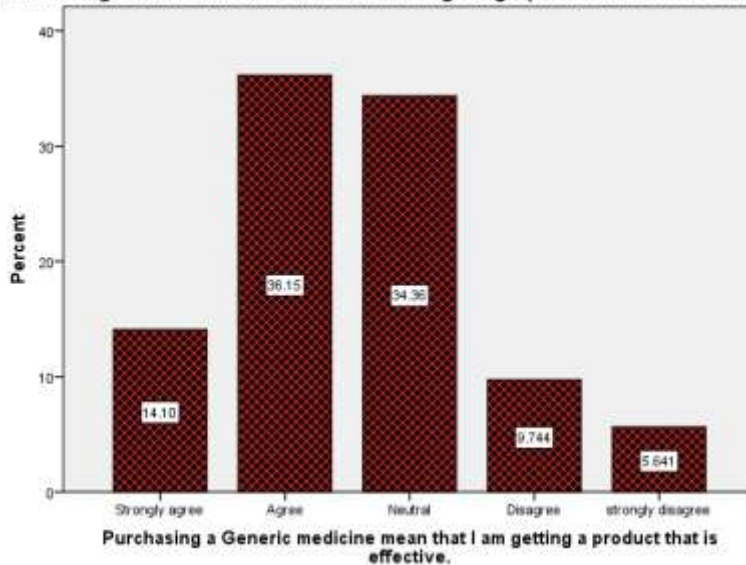
I am willing to purchase a Generic prescription drug if my Physician says it is okay.



Inference: Figures represent the consumer purchasing behaviour by the physicians advice for a Non-patented medicines, 81.8% respondents confirm that they will buy non-patented medicines if physician says okay to non-patented medicines, while 7.9% consumer say that they will not buy non-patented medicines if physician says no to non-patented medicines. They normally stick to the medicines prescribed by the doctor.

13. Purchasing a Non-patented medicines mean that I am getting an effective product.

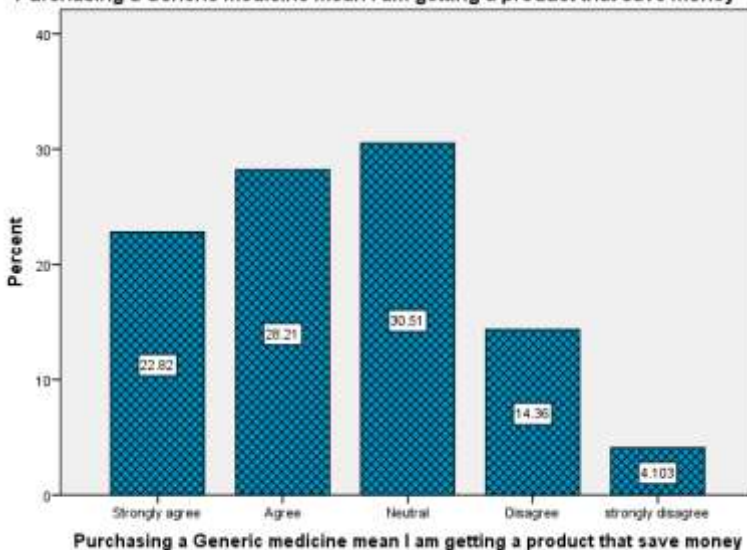
Purchasing a Generic medicine mean that I am getting a product that is effective.



Inference: More than 50 percent overall are strongly agree and agree upon that purchasing a Non-patented medicines mean that I am getting an effective product.

14. Buying Non-patented medicines mean I will save money

Purchasing a Generic medicine mean I am getting a product that save money



Inference: From an economic perspective, more than half (51%) of consumers either agree or strongly agree that non-patented medicines used for high risk conditions saved money, were a good buy, and were a good value for rupee.

15. Purchasing a Non-patented medicines mean I am getting a safe product.



Inference: From the results obtained, measures a consumers' willingness to purchase safe medicine, participants felt either agree or strongly agree that non-patented medicines used for high risk conditions were effective, safe more than half (55.1%) of consumers either agree or strongly agree that Purchasing a Non-patented medicines mean I am getting a safe product..31.54% of consumers were neutrally influence by that specific situation, while only 13.59% and 6.667% of participants were disagree and strongly disagree respectively.

16. Purchasing a Non-patented medicines mean I am buying a good quality product.



Inference: From the results obtained, measures a consumers' willingness to purchase quality non-patented medicines, indicated that from a quality-related perspective, more than half (53.6%) of consumers either agree or strongly agree that purchasing of the non-patented medicines means I am buying a good quality product. 31.54% of consumers were neutrally influence by that specific situation, while only 7.692% and 7.179% of participants were disagree and strongly disagree respectively.

5. FINDINGS

43.69% of consumers do not realize that their prescription medication has a generic equivalent. The advice of medical professionals, quality, and safety are the main considerations while choosing a medication. The fact that a generic medication is a pharmaceutical product with the same chemical makeup as a branded one is unknown to 44.36 percent of customers. Just 31.28 percent of customers are aware that the active components in generic medications are comparable to those in patented ones. However, 22.05 percent of patients are unaware of this. When their healthcare providers approve of generic medications, 67.95 percent of customers would choose them over branded ones. According to the statistics, which gauge respondents' propensity to buy generic prescription pharmaceuticals, 36.41% of consumers concur that they would like to buy generic prescription drug goods whenever it is feasible. Merely 34.10 percent

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of customers expressed neutral influence towards that particular issue, whilst a mere 5.897.0% and 9.744% of participants expressed significant disagreement, respectively. Merely 13.85% of respondents expressed high agreement with buying generic medications. Because generic medications are often less expensive than brand-name ones, the study's finding (42.05%) indicates that patients occasionally do request a generic version of the medication that was prescribed. In the event that the prescription medication is not readily available from the neighbourhood pharmacist, people occasionally seek for alternatives that are equally effective and comparatively more affordable. The following statistics show how consumers behave when buying generic medications based on medical advice: 81.8% of respondents say they will purchase generic medications if their doctor approves of them, and 7.9% say they won't purchase generic medications if their doctor says no. Typically, they take the medications as directed by the physician. More than 50 percent overall are strongly agree and agree upon that purchasing a non-patented medicines mean that I am buying a product that is effective. From an economic perspective, more than half (51%) of consumers either agree or strongly agree that non-patented medicines used for high risk conditions saved money, were a good buy, and were a good value for rupee. consumers' willingness to purchase safe medicine, participants felt either agree or strongly agree that non-patented medicines used for high risk conditions were effective, safe more than half (55.1%) of consumers either agree or strongly agree that Purchasing a Non-patented medicines mean I am getting a safe product. 31.54% of consumers were neutrally influence by that specific situation, while only 13.59% and 6.667 % of participants were disagree and strongly disagree respectively. consumers' willingness to purchase quality non-patented medicines, indicated that from a quality-related perspective that more than half (53.6%) of consumers either agree or strongly agree that purchasing of the non-patented medicines means I am buying a good quality product. Only 31.54% of consumers were neutrally influence by that specific situation, while only 7.692 % and 7.179 % of participants were disagree and strongly disagree respectively.

6. CONCLUSION

Large numbers of patient have shown a high degree of trust in doctors. This knowledge and awareness can further be increased by pharmacist, physicians, pharmaceutical companies and government with the development and implementation of policies promoting

generic use. Regulating medicine cost can also ensure the success of the generic policy in India. Government should systematically develop strategies towards building trust in health services and must provide information on quality of non-patented medicines through various educational programmes. Educational programs such as seminars and campaigns by state government and pharmaceutical companies can help in clearing the myths about non-patented medicines among consumers. Generic substitution policy requires physicians to take affirmative steps before prescribing brand name drugs.

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