

TO INVESTIGATE PREFERENCES IN GENERAL PRACTITIONERS TOWARDS PRESCRIBING GENERIC AND BRANDED MEDICATIONS IN KALYAN-DOMBIVALI REGION**¹Lalitkumar Bhole* and ²Dr. Parag Narkhede**¹Research Scholar, North Maharashtra University, Jalgaon & Faculty IBM Navi Mumbai²Research Guide, KCES's Institute of Management & Research, Jalgaon**ABSTRACT**

In healthcare General practitioners' (GPs) decision on whether to prescribe branded or generic drugs is vital and has a big influence on patient outcomes and healthcare expenses. Patients can save money by using generic pharmaceuticals, which are bioequivalent to branded ones but usually less expensive. Nonetheless, a GP's prescribing practices may be influenced by patient condition, preferences, marketing for pharmaceutical formulations, and views of efficacy. This study attempts to find out how general practitioners in Kalyan Dombivli, a region with a variety of socioeconomic demographics, feel about prescribing generic drugs as opposed to branded ones. Through gaining an understanding of these preferences, the research aims to pinpoint the variables that impact general practitioners' decisions, spanning from patient adherence and clinical efficacy to financial concerns and pharmaceutical incentives. The knowledge acquired will help create plans to streamline prescription procedures, guaranteeing the area's affordability and high standard of patient care.

Keywords: Generics, Healthcare sector, Drug effectiveness, General practitioner Perception, Branded medicines, Prescription habit, Prescriber, Pharmaceutical sales, Product prescription.

1. INTRODUCTION

In the rapidly evolving landscape of pharmaceuticals, the choice between prescribing generic and branded medications is a critical decision for general practitioners. The use of generic medicines, compared to their branded counterparts, has the potential to substantially reduce out-of-pocket expenditure on drugs for patients with chronic diseases.^[1] This paper delves into the preferences of general practitioners in Kalyan Dombivli, a bustling urban area in India, towards these two categories of medications. Generic medicines provide substantial competition to branded drugs worldwide by offering high-quality alternatives at lower prices.^[2] This competition impacts the pharmaceutical industry and healthcare systems in various significant ways:

- 1. Cost Reduction:** Generic drugs are typically sold at significantly lower prices than branded drugs. This is because generic manufacturers do not have to invest in the initial research, development, and marketing costs that the original developers of the branded drugs do. As a result, the introduction of generics often leads to a reduction in the overall cost of medications, making treatments more affordable for patients and healthcare systems.
- 2. Market Share Erosion:** When a branded drug's patent expires, generic manufacturers can produce and sell the drug, often leading to a substantial decrease in the market share of the branded drug.^[8] The increased availability of lower-cost generics typically causes a decline in sales and revenue for the original branded drug.
- 3. Increased Accessibility:** The lower cost of generic drugs enhances accessibility to essential medications for a broader population. This is particularly important in low- and middle-income countries where healthcare budgets are limited, and patients may not afford expensive branded drugs.
- 4. Encouraging Innovation:** The competition from generics can drive innovation within the pharmaceutical industry. Branded drug manufacturers may be incentivized to develop new and improved drugs to maintain their competitive edge and market share. This cycle of innovation can lead to the discovery of better treatments and therapies.
- 5. Regulatory Support:** Many countries have regulatory frameworks that support the approval and use of

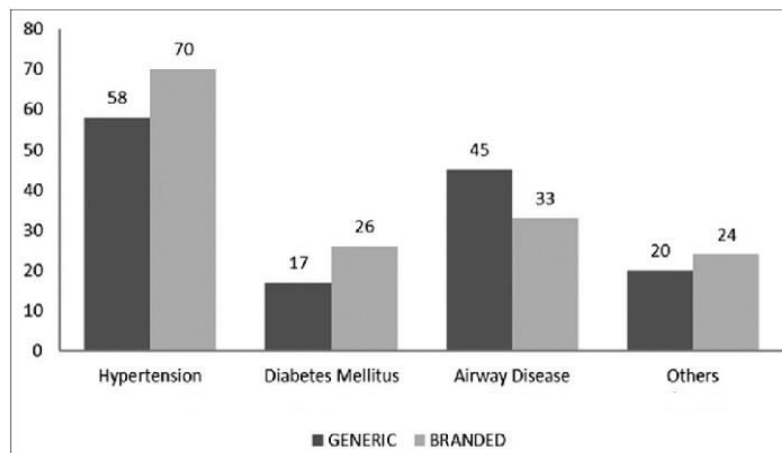
generic drugs. Agencies like the U.S. Food and Drug Administration (FDA) and the European Medicines Agency (EMA) have rigorous standards to ensure that generics are bioequivalent to their branded counterparts, thus assuring patients and healthcare providers of their efficacy and safety.

6. **Health Insurance Impact:** Health insurance companies and government health programs often prefer generic drugs because of their lower cost. This preference can lead to formulary changes that favor generics, further promoting their use over branded drugs and driving competition in the market.
7. **Market Dynamics:** The entry of generic drugs into the market can lead to price competition among manufacturers, driving down prices even further. This competition can benefit consumers and healthcare providers by making a wider range of affordable medication options available.
8. **Global Reach:** Generic drug manufacturers, especially from countries like India and China, have become significant players in the global pharmaceutical market. These manufacturers supply generic drugs to many countries, increasing global competition and availability of affordable medicines.
9. **Pharmaceutical Strategies:** In response to generic competition, branded drug companies may implement strategies such as developing new formulations, obtaining additional patents, or creating combination drugs to extend their market exclusivity. They may also engage in marketing campaigns to highlight the benefits of their branded products over generics.
10. **Healthcare System Sustainability:** By reducing drug costs, generics help in sustaining healthcare systems financially. Lower medication costs mean that healthcare funds can be allocated to other areas such as preventive care, infrastructure, and the development of new treatments.

Generic drugs significantly impact the pharmaceutical market by offering cost-effective alternatives to branded medications, increasing accessibility, driving innovation, and creating a competitive market environment. This competition benefits patients, healthcare providers, and the overall healthcare system by promoting the availability of affordable and effective treatments.^[7]

Generic substitution of brand prescriptions is an accepted practice in many parts of world, and this is often done for economic reasons.^[3,4] With healthcare costs escalating and the push for cost-effective treatments growing stronger, understanding the factors that influence prescription practices becomes essential. Through comprehensive surveys and in-depth interviews, this research also touches the motivations, perceptions, and constraints faced by doctors in this region. It examines the impact of pharmaceutical marketing, patient expectations, and regulatory policies on prescribing behaviors. By shedding light on these dynamics, the pharmaceutical market, ultimately contributing to more informed and balanced prescription practices.

Figure 1: Primary diagnosis of the patients with chronic diseases using either generic or branded drugs



Ref: Generic versus branded medicines: An observational study among patients with chronic diseases attending a public hospital outpatient department - Scientific Figure on ResearchGate. Available from: https://www.researchgate.net/figure/Primary-diagnosis-of-the-patients-with-chronic-diseases-using-either-generic-or-branded_fig1_312393002 [accessed 29 Jul 2024]

India is one of the fastest-growing economies of the world and for sustained economic development proper health of population is of prime importance. At present times, with the rise in population, the number of diseases has also increased and with that the increasing cost of the treatment lends a huge economic burden on the society. Since 1970, access to essential medicines has been a crucial public health agenda for the World Health Organization (WHO) for sustaining an effective primary health care.^[5] With the rapid rise in burden of chronic non-communicable diseases (NCDs) in low- and middle-income countries it is crucial to have an improved access to the medicines at an affordable or bare minimum price for the society. The pharmaceutical industry is a constantly evolving landscape, driven by scientific advancements and a relentless pursuit of improved patient care. The usage of generic drugs and essential medicine were significantly higher among doctors from government hospitals.^[9]

Problem Statement

The prescribing behavior of general practitioners (GPs) significantly influences medication usage patterns and healthcare costs. In many healthcare systems, the choice between generic and branded medications is a critical decision that impacts both economic and clinical outcomes. Generic medications are typically less expensive than their branded counterparts, yet there is often hesitation among GPs to prescribe them due to concerns about efficacy, patient perceptions, and pharmaceutical marketing influences. Understanding the preferences of GPs in Kalyan Dombivali towards prescribing generic versus branded medications is essential for formulating policies that promote cost-effective and rational drug use in pharmaceutical market.

Problem:

Despite the proven efficacy and cost advantages of generic medications, there is variability in their prescription by GPs. Factors influencing these preferences in the context of Kalyan Dombivali remain underexplored. Identifying these factors is crucial for implementing strategies to optimize prescribing practices, reduce healthcare costs, and ensure patient satisfaction and adherence to treatment.

Objective:

This study aims to investigate the preferences of general practitioners in Kalyan Dombivali towards prescribing generic and branded medications. It seeks to identify the underlying factors influencing these preferences and to assess the potential barriers to the adoption of generic medications. The findings will provide insights to guide healthcare policy and educational initiatives to promote the rational use of medications.

Research Objectives

1. To assess the preferences of general practitioners (GPs) in Kalyan Dombivali towards prescribing generic versus branded medications.
2. To identify the factors influencing the prescribing decisions of GPs regarding generic and branded medications.
3. To propose strategies to encourage the use of generic medications without compromising patient safety and clinical outcomes.

Significance: By understanding the preferences and barriers faced by GPs in prescribing generic medications, this study will contribute to the development of targeted interventions aimed at promoting cost-effective prescribing practices. The outcomes will be valuable for healthcare policymakers, pharmaceutical companies, and educational institutions in designing programs that encourage the optimal use of generic medications, ultimately benefiting the healthcare system and patients.

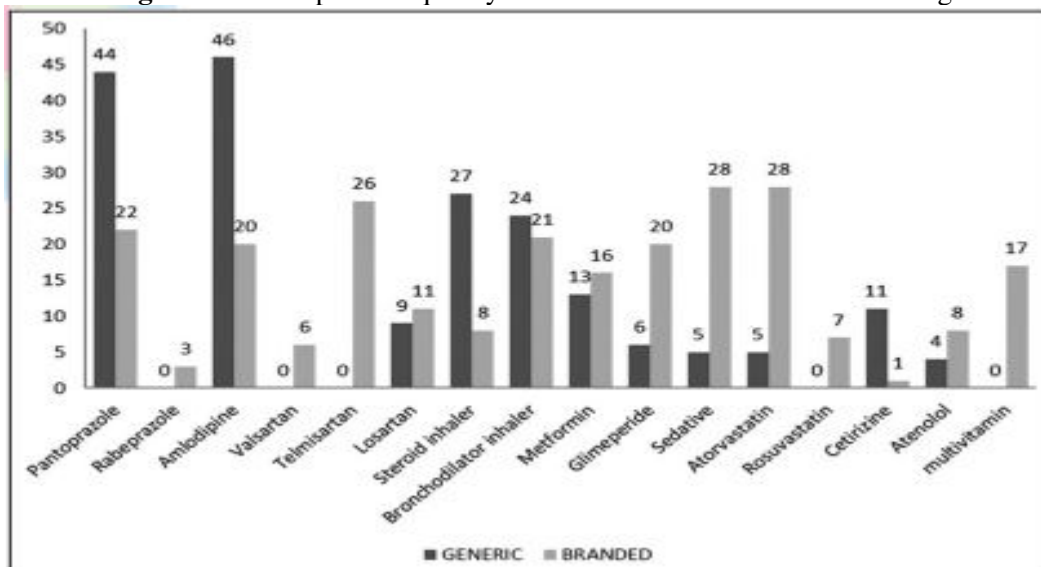
2. LITERATURE REVIEW

The prescription behavior of general practitioners (GPs) plays a pivotal role in the healthcare system, particularly in the context of choosing between generic and branded medications. This literature review examines the existing research on GP prescribing behaviors, focusing on generic versus branded medications, and explores strategies to encourage the use of generic medications.

Preferences of General Practitioners Towards Generic Versus Branded Medications

Several studies have investigated the preferences of GPs when prescribing medications. Research indicates that while many GPs recognize the cost-effectiveness of generic medications, there is a significant variation in their prescribing patterns. For instance, a study by Hassali et al. (2014) found that although GPs generally support the use of generics, concerns about their efficacy and quality often lead to a preference for branded medications. Similarly, another study by Kersnik et al. (2011) highlighted that GPs' familiarity and trust in branded drugs contribute to their reluctance to prescribe generics.

Figure 1: Prescription frequency of selected Branded and Generic drug



Ref: Generic versus branded medicines: An observational study among patients with chronic diseases attending a public hospital outpatient department - Scientific Figure on ResearchGate. Available from: https://www.researchgate.net/figure/Prescription-frequency-of-selected-branded-and-generic-drugs_fig2_312393002 [accessed 29 Jul 2024]

Factors Influencing Prescribing Decisions

The decision-making process for prescribing generic versus branded medications is multifaceted. Factors such as clinical efficacy, safety profiles, patient preferences, and economic considerations play crucial roles. According to a study by Dunne et al. (2013), GPs' prescribing choices are heavily influenced by their perceptions of the therapeutic equivalence between generic and branded medications. Additionally, pharmaceutical marketing and promotional activities significantly impact GPs' prescribing habits, as noted by Spurling et al. (2010).

Perceived Barriers to Prescribing Generic Medications

Despite the proven benefits of generic medications, GPs encounter various barriers that hinder their prescribing. Research by Simoens and De Coster (2006) identified several barriers, including doubts about the bioequivalence of generics, lack of patient acceptance, and insufficient information about generic options. Moreover, regulatory and policy constraints can also impede the widespread adoption of generics. For example, GPs may face restrictions on generic substitution policies or limited availability of certain generic formulations.

Patient Perceptions and Expectations

Patient perceptions and expectations significantly influence GP prescribing behavior. Studies have shown that patients often perceive branded medications as more effective and safer than their generic counterparts. A survey conducted by Colgan et al. (2015) revealed that patients' lack of understanding about generic medications and their apprehensions regarding quality contribute to a preference for branded drugs. Consequently, GPs may feel compelled to prescribe branded medications to meet patient expectations and ensure adherence to treatment.

Strategies to Encourage the Use of Generic Medications

To promote the use of generic medications without compromising clinical outcomes, several strategies can be implemented. Educational interventions targeting both GPs and patients are essential to dispel myths and provide accurate information about the efficacy and safety of generics. According to a review by Patel et al. (2010), continuous medical education and training programs for GPs can enhance their confidence in prescribing generics. Additionally, policy measures such as incentivizing generic prescriptions and implementing robust generic substitution regulations can support the uptake of generic medications. Collaborative efforts between healthcare providers, policymakers, and pharmaceutical companies are crucial to create an environment that fosters the acceptance and utilization of generics.

3. RESEARCH METHODOLOGY

The research design will employ a mixed-methods approach, combining quantitative and qualitative data collection techniques to provide a comprehensive understanding of GPs' preferences and the factors influencing their prescribing decisions.

Population:

The study will target general practitioners working in the Kalyan Dombivali area. A stratified random sampling method will be used to ensure representation from various types of healthcare settings (e.g., public hospitals, private clinics).

Kalyan- Dombivali region (city, and outside villages part) have been considered to keep fair overall view. Since area is having mixed population and distributed in padas. In sampling 50% responses are taken from city vicinity and 50% from village and pada region.

Sampling:

The sample size of 90 will be determined based on the total number of GPs in the area, aiming for a confidence level of 95% and a margin of error of 5%.

Data Collection Methods

- **Quantitative Data:** A structured questionnaire will be developed to gather quantitative data on GPs' preferences, perceived barriers, and factors influencing their prescribing decisions. The questionnaire will include multiple-choice questions and demographic information.
- **Qualitative Data:** In-depth semi-structured interviews will be conducted with a subset of GPs to explore their attitudes, beliefs, and experiences in greater detail. The interviews will help to contextualize the quantitative findings and provide deeper insights into the motivations behind prescribing behaviors.

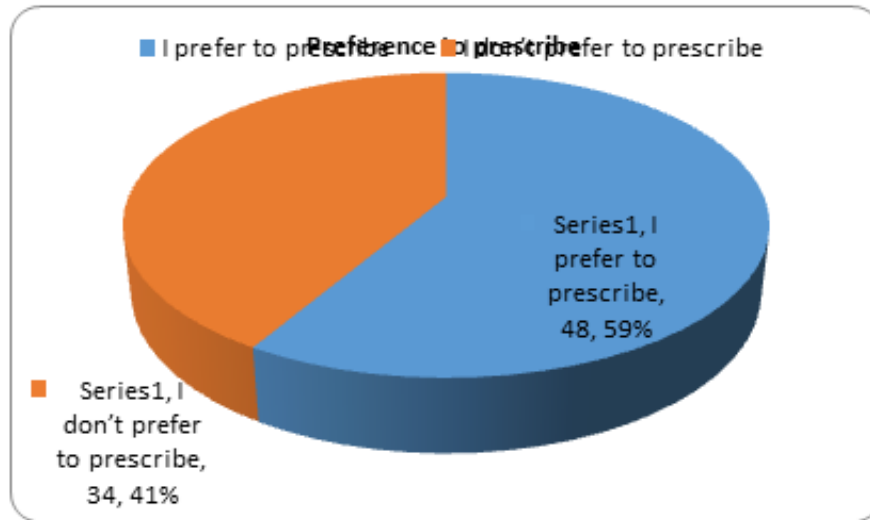
4. DATA ANALYSIS

Descriptive statistics pie charts will be used to summarize the data of 82 questionnaire which are completely filled.

FINDINGS

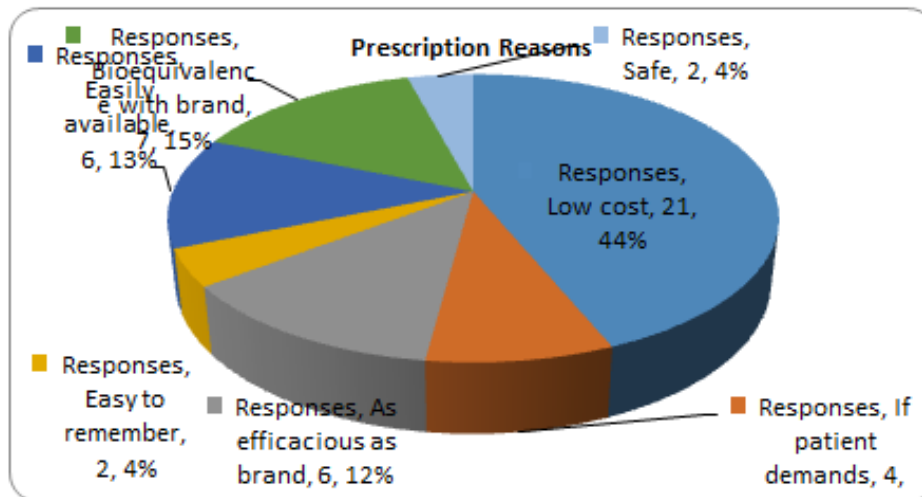
Analysis of the questionnaire gives following findings. Below question with pie charts and tabulation form describes the observations

1) Do you Prefer to Prescribe Generic Medicine to Your Patients?



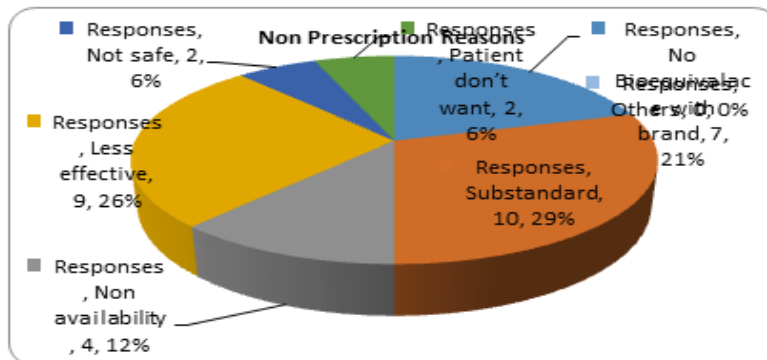
I prefer to prescribe	I don't prefer to prescribe
48	34

2) If you are Prescriber, Mention the Reasons for Prescription (n=48) ?



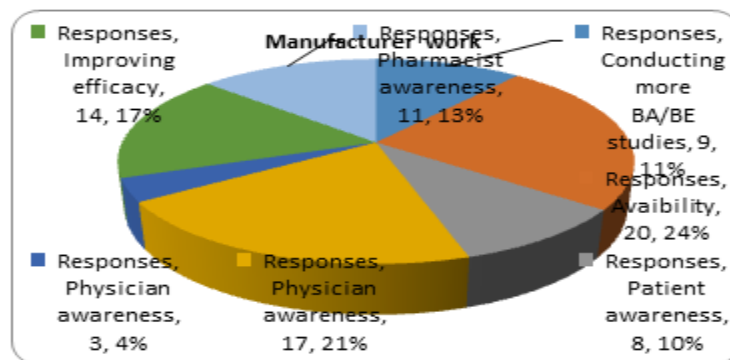
Reason	Responses
Low cost	21
If patient demands	4
As efficacious as brand	6
Easy to remember	2
Easily available	6
Bioequivalence with brand	7
Safe	2

3) If you don't Prescriber, Mention the Reasons for that (n=34) ?



Reason	Responses
No Bioequivalence with brand	7
Substandard	10
Non availability	4
Less effective	9
Not safe	2
Patient don't want	2
Others	0

4) According to you by what way generic companies can proceed with their products to make better and patient friendly environment in our country? (n=82)



Manufacturer Work	Responses
Conducting more BA/BE studies	9
Avaibility	20
Patient awareness	8
Physician awareness	17
Physician awareness	3
Improving efficacy	14
Pharmacist awareness	11

5. CONCLUSION

Generic medicines play a critical role in healthcare system of Kalyan Dombivali region with majority of prescribers addressing several key issues and contributing to the overall well-being of the population. Here affordability, wider distribution for patient's accessibility with more emphasis on quality concerns by

manufacturers with providing more references for bio-availability and bio-equivalence studies fosters competition in the pharmaceutical environment. Efficacy is the important concern, which is raised by considerable number of prescribers, addressing this issues can lead to further reductions in drug prices in market and stand up to give perfect competition to branded drugs, it will also boost domestic pharmaceutical Industry and may reduce dependency on imports.

Overall, generic medicines are indispensable in improving the affordability, availability, accessibility, and overall quality of healthcare in Kalyan Dombivali region. Based on the observations, it is vital to engage primary care physicians and chemists since they tend to be the strongest link in lobbying for generics for better affordability. Efforts should be undertaken to engage the community and popularise generics. By emphasizing the practice and sensitizing the doctors from the start of their medical education, primary care physicians' prescription of generics can be improved.

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