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EVALUATING PHYSICIAN'S AND PATIENT'S PERCEPTION AND CONCERN REGARDING GENERIC MEDICINES IN A TERTIARY CARE TEACHING HOSPITAL

Dr. Leela Hugar,[1] Dr Oshi Malik,[2*] Dr. Gurudatta Moharir[3]

[1]MBBS, MD, Associate Professor, Department of Pharmacology, BLDE(DU)'s Shri B. M. Patil Medical College Hospital & Research Centre, Vijayapur, Karnataka

[2*]MBBS, Post Graduate Student in MD Psychiatry, Jawaharlal Nehru Medical College, Wardha, Maharashtra

[3]Ph.D, Associate Professor, Department of Pharmacology, JMF's ACPM Medical College, Dhule, Maharashtra

Corresponding Author

Dr Oshi Malik

Email Id: oshimalik30@gmail.com

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ABSTRACT

Background: Generic medicines are cost-effective alternatives to branded counterparts, offering significant savings to patients and the healthcare system. However, their utilization is heavily influenced by the perceptions of key stakeholders: physicians (prescribers) and patients (consumers). This study aimed to evaluate the knowledge, attitude, and concerns of physicians and patients regarding generic medicines in a tertiary care teaching hospital.

Methodology: This was a cross-sectional, observational study conducted in the Department of Pharmacology at BLDEU's Shri B.M. Patil Medical College Hospital and Research Centre, Vijayapura, over two months. A target sample size of 400 subjects (Medical Officers, Residents, Specialists, and Patients) was planned using a structured questionnaire for physicians and a vernacular interview for patients.

Results: The response rate was 92.5% (n=370). Physicians (n=120) generally acknowledged generics' cost-effectiveness (85%) and bioequivalence (78%). However, a significant minority (45%) expressed concerns about the quality and manufacturing standards of generic products, and 55% were reluctant to prescribe them for life-threatening conditions. Patients (n=250) largely agreed that generics were cheaper (75%), but a majority (60%) believed generics had lower efficacy and quality compared to branded medicines. Only 30% of patients reported asking their doctor for a generic alternative. Both groups identified the lack of public awareness and physician preference for branded drugs as major barriers.

Conclusion: Despite a baseline understanding of generic medicine's financial benefits, both physicians and patients in the tertiary care setting harbor significant concerns regarding quality, efficacy, and safety. Targeted educational interventions for both prescribers (emphasizing bioequivalence data) and consumers (addressing quality mistrust) are crucial to increase the rational utilization of generic medicines.

Keywords: Bioequivalence, Branded Medicines, Life-Threatening Conditions, Physicians

INTRODUCTION

The rising cost of healthcare, particularly the expenditure on pharmaceuticals, presents a considerable challenge globally, especially in developing nations like India, where out-of-pocket spending on medicines is substantial[1]. The World Health

Organization (WHO) defines a generic medicine as "a pharmaceutical product that is usually intended to be interchangeable with an innovator product, is manufactured without a license from the innovator company and is marketed after the expiry date of the patent or other exclusive rights" [2].Generic medicines contain the identical active pharmaceutical ingredient (API) in the same dosage form and strength as the innovator product. Regulatory bodies require generic manufacturers to demonstrate bioequivalence—meaning the generic product is absorbed into the bloodstream at the same rate and extent as the original—to ensure equivalent therapeutic effect [3]. By circumventing the need for extensive, time-consuming, and expensive pre-clinical and clinical trials, generic medicines are significantly cheaper, potentially reducing overall healthcare costs and improving patient adherence to therapy [4].

Despite their established equivalence and economic benefits, the acceptance and utilization of generic medicines remain variable. This is largely influenced by the perceptions of healthcare providers and consumers, alongside prevailing policy issues [5]. A doctor's view about generic drugs has a significant ramification on their usage, particularly in developing countries where patients tend to buy precisely what is prescribed [6]. Physicians may favour branded medicines on various accounts, including familiarity with a trusted brand, aggressive marketing by pharmaceutical companies, or a lack of familiarity with the rigorous regulations that prove bioequivalence[7,8]. This perception bias introduces challenges when studying the safety and effectiveness of generic drugs in the real world. Consumers, often relying heavily on a doctor's recommendation, frequently equate the lower price of generic drugs with lower quality, efficacy, or safety [9]. This inherent mistrust can lead to non-adherence, the nocebo effect (where a patient reports side effects simply due to negative expectation), and a continued preference for more expensive branded options.

This study was designed to systematically evaluate the current perceptions and concerns of both physicians and patients at a tertiary care teaching hospital concerning the quality, safety, and use of generic medicines.

Objectives:

1. To study the knowledge and attitude of physicians regarding generic medicines.
2. To study the knowledge and perception of consumers (patients) about generic medicines.
3. To identify the major barriers to the wider acceptance and prescription of generic medicines from both perspectives.

MATERIALS AND METHODS

This was a cross-sectional, observational study. It was conducted in the Department of Pharmacology, BLDEU's Shri B.M. Patil Medical College Hospital and Research Centre, Vijayapura, Karnataka, India, a tertiary care teaching hospital that caters to a large, diverse patient population from both urban and rural areas.The study was conducted over a period of two months from May to July 2024. Institutional Ethical Clearance was obtained from the Institutional Ethics Committee (IEC) of BLDEU's Shri B.M. Patil Medical College Hospital and Research Centre before the commencement of the study. Verbal consent was taken from all study participants (physicians and patients) after explaining the study's purpose, confidentiality, and voluntary nature.

Assuming a prevalence of generic medicine acceptance/knowledge of 50%, a 95% confidence level, and a margin of error 5%, Adjusting for a 5% drop-out rate, the recruitment target was set at 400 subjects.

A convenience sampling approach was used to recruit Physician Group, including medical Officers, residents, and specialists across various clinical departments. Patient Group including patients visiting the Outpatient Departments (OPD) and In Patient Department (IPD) who were prescribed or were currently taking chronic medication were considered for the study.

A structured, self-administered questionnaire was distributed to the Medical Officers, Residents, and Specialists. The questionnaire contained sections assessing 1.Knowledge: Definition, bioequivalence, and regulatory process of generics, 2.Attitude: Trust in efficacy, safety, and quality standards, 3.Practice/Concern: Frequency of generic prescription, willingness to switch, and barriers to use. An interview using a structured questionnaire was conducted by the investigator in the patient's vernacular language (e.g., Kannada, Marathi) to ensure accurate comprehension. The interview focused on 1.Knowledge: Awareness of the difference between generic and branded drugs, 2.Perception: Beliefs about quality, efficacy, and side effects, 3.Practice/Concern: Cost-saving experience, willingness to use generics, and source of information.

Statistical Analysis

The collected data will be entered into Microsoft Excel. Statistical analysis was performed using descriptive Statistics. Frequencies and percentages were used to describe the demographic characteristics and the distribution of responses for knowledge, attitude, and perception questions for both groups.

RESULTS

A total of 400 subjects were approached, and 370 participants completed the study, yielding a response rate of 92.5%. The sample comprised 120 Physicians (Medical Officers/Residents/Specialists) and 250 Patients.

A majority (78%) correctly believed generics are therapeutically equivalent. However, a significant minority (45%) still expressed strong concern about the quality and manufacturing standards. A high percentage (55%) of physicians admitted to reluctance in prescribing generics for critical care, indicating a lack of complete trust in high-stakes clinical scenarios. The primary barriers to generic prescription cited were lack of reliable quality assurance data (40%) and patient non-adherence due to brand mistrust (35%).[Table 1 & Figure 1]

While most patients were aware of the cost advantage (75%), a striking majority (60%) held a negative perception of generic quality. The level of proactiveness in demanding generics was low; 70% reported never having asked for a generic alternative. Trust in the physician remained paramount, as 85% stated they would switch to a generic if their doctor directly suggested it. The primary reasons for not using generics were the belief that the drug was inferior (50%) and the preference of their doctor for branded options (30%).[Table 2 & Figure 2]

DISCUSSION

The findings of this study highlight a pervasive dichotomy in the perception and utilisation of generic medicines within the Indian tertiary care setting: an academic acknowledgement of their benefits versus a deeply entrenched practical mistrust concerning quality.

The results of present study align closely with established trends in India and globally[10]. ***Physician Concerns:*** Studies in India and other developing nations consistently show that while most physicians acknowledge the principle of bioequivalence and the cost benefits of generics, they harbor deep-seated concerns about inconsistent quality control and manufacturing practices among generic companies [11,12]. The reluctance to prescribe generics for critical conditions (55% in this study) is a common finding, demonstrating that the lack of rigorous, independently verifiable post-marketing surveillance for generic drugs translates into prescriber hesitation[13]. Furthermore, studies indicate that medical representatives for branded drugs often exacerbate this mistrust, influencing prescribing behaviour [8].

Patient Mistrust: The patient data mirrors result from similar studies in North and South India, where a high percentage of patients (e.g., 61% in one study) believed generics had lower quality than branded medicines despite knowing they were cheaper[9,14]. This is often summarized by the 'more you pay, the better the quality' heuristic. The finding that 70% of patients never proactively asked for a generic highlights a high degree of passive reliance on the physician's prescription and a potential fear of questioning the doctor's choice[6]. However, the high willingness (85%) to switch if recommended by the doctor emphasizes the pivotal role of the prescriber as the most trusted source of drug information.

Policy Implications: Both physician and patient data indirectly reflect the challenges faced by government initiatives like the *Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana* (PMBJAP)[15]. A policy mandating generic prescription can only be fully effective when the quality assurance mechanisms are robust enough to convince the prescribers, and when the public is adequately educated to overcome the perception of inferiority.

A significant barrier to the wider acceptance of generic drugs is a pervasive trust deficit in quality, stemming from physicians' lack of faith in quality assurance and bioequivalence data, and patients' perception of generics as being inferior to their branded counterparts. Compounding this is a substantial information gap: patients frequently lack detailed, trusted information about generics, while physicians often do not have access to reliable post-marketing surveillance data. This is further cemented by physician preference, characterized by strong prescribing habits that favor familiar branded products.

To address these multifaceted issues, several recommendations are essential. Firstly, targeted education for physicians is critical. This should involve mandatory Continuing Medical Education (CME) programs that focus on the scientific evidence of bioequivalence, explain the regulatory approval process, and highlight the economic burden associated with branded drug prescriptions. Secondly, public awareness campaigns are needed. Large-scale government campaigns, delivered in vernacular languages, should be implemented to simplify the concept of bioequivalence and provide an official guarantee regarding the quality of generic drugs available through public health channels. Finally, strengthening regulatory oversight is paramount. This requires increased investment in public-sector testing laboratories and the transparent dissemination of post-marketing surveillance data. This move is crucial for building confidence in the generic drug system among both healthcare providers and the general public.[12]

CONCLUSION

This study confirms that the major barrier to generic medicine utilization in this tertiary care setting is the prevailing perception of inferior quality and manufacturing inconsistency among both physicians and patients, despite an understanding of their significant cost-saving benefits. Overcoming the quality and trust deficit through transparency in regulatory processes and sustained, evidence-based education is the essential next step to increasing the rational use of generic medicines and achieving the goal of affordable healthcare.

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Perception/Knowledge Statement	Agree (%)	Disagree (%)	Not Sure (%)
Generics are as effective as branded drugs.	94(78%)	14(12%)	12(10%)
Generics are less expensive than branded drugs.	102(85%)	6(5%)	12(10%)
Generic manufacturers must prove bioequivalence.	84(70%)	18(15%)	18(15%)
I am concerned about the manufacturing quality of generics.	54(45%)	42(35%)	24(20%)
I prescribe generics only if the patient asks for them.	78(65%)	30(25%)	12(10%)
Reluctance to prescribe generics in life-threatening conditions.	66(55%)	36(30%)	18(15%)

Table-1. Physician Perception and Concerns (n=120)

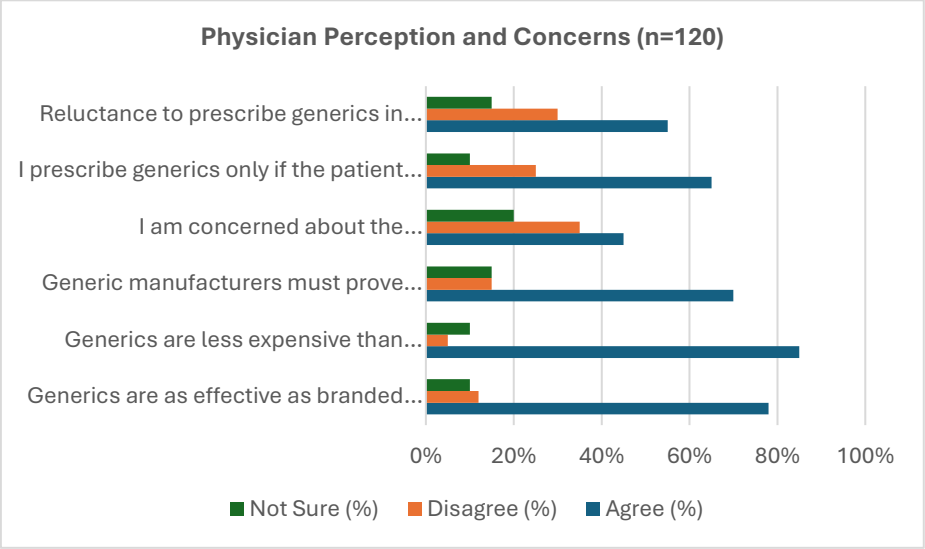


Figure 1: Physician Perception and Concerns (n=120)

Perception/Knowledge Statement (Patient Response)	Agree (%)	Disagree (%)	Not Sure (%)
Generics are cheaper than branded drugs.	187(75%)	25(10%)	38(15%)
Generics have lower quality than branded drugs.	151(60%)	49(20%)	50(20%)
I have never asked my doctor for a generic drug.	174(70%)	76(30%)	00
I would switch to a generic if the doctor suggested it.	213(85%)	12(5%)	25(10%)
I have experienced an inferior effect with a generic drug.	87(35%)	137(55%)	25(10%)

Table 2: Patient Perception and Concerns (n=250)

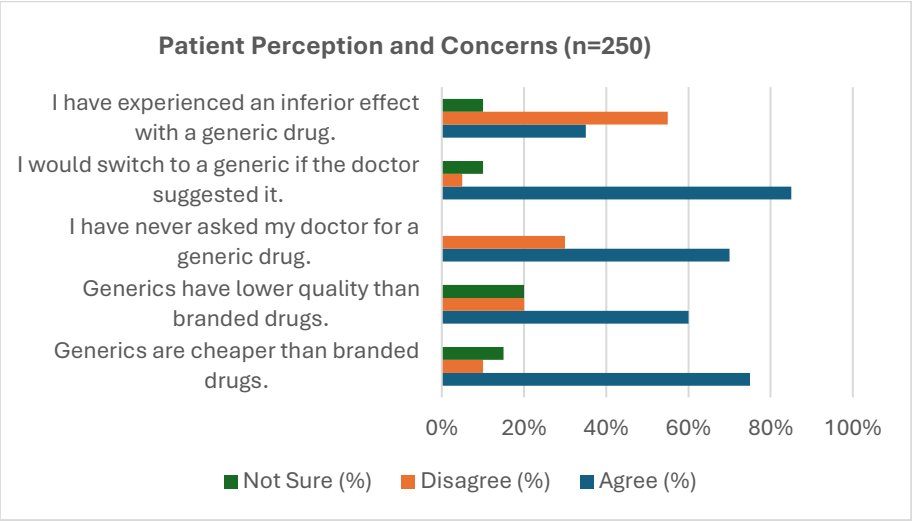


Figure 2: Patient Perception and Concerns (n=250)