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ORIGINAL RESEARCH

Prescribers' Views on Generic Medicines: Knowledge, Attitudes, and Practices in Government Hospitals and Institutes in Chhattisgarh, Central India

Dr. Maya Ramteke [1], Dr. Ajay Halwai[2], Dr. Sachin Srivastava [3], Dr. Usha Joshi[4], Dr. Ajitesh Mishra[5]

[1]Assistant Professor, Department of Pharmacology, Pt. J.N.M. Medical College, Raipur, India
[2]Associate Professor, Department of Pharmacology, Pt. J. N.M. Medical College, Raipur, India
[3]2nd year PG Resident, Department of Pharmacology, Pt. J. N.M. Medical College, Raipur, India
[4]Professor and Head, Department of Pharmacology, Pt. J.N.M. Medical College, Raipur, India
[5]Demonstrator, Department of Pharmacology, Pt. J.N.M. Medical College, Raipur, India

Correspondence author
Sachin Srivastava
2nd year PG Resident, Department of Pharmacology, Pt. J. N.M. Medical College, Raipur, India
Email: ankitsdr@gmail.com

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ABSTRACT

Objective: This study provides the knowledge, attitudes, and practices of doctors regarding generic medicines across government hospitals and institutions in Chhattisgarh, Central India.

Methods: A cross-sectional survey was conducted from February to April 2024 using a 26-question electronic questionnaire administered to doctors in government hospitals and institutes in Chhattisgarh. Data from 67 participants was analyzed using descriptive statistics.

Results: Most respondents (72%) frequently prescribe generic medicines. However, 72% expressed concerns that switching from brand-name to generic drugs might affect therapeutic outcomes. Medical representatives influence 60% of doctors' prescribing habits. A majority (84%) were comfortable with pharmacists substituting branded medications with generics. Additionally, 64% noted that patients' socioeconomic status impacts their prescribing practices, and 76% had personal experience with generic medicines.

Conclusion: The study demonstrates a general acceptance of generic medicines among doctors in Chhattisgarh, although concerns about efficacy and safety persist. Increased awareness, supportive policies, and pharmacist involvement are essential for promoting rational use and improving patient outcomes.

Keywords: generic medicines, physician attitudes, prescribing behavior, socioeconomic factors, pharmacist involvement.

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INTRODUCTION

Generic medicines have been a cornerstone of pharmaceutical care for decades, offering cost-effective alternatives to branded drugs for the treatment of various acute and chronic conditions [1]. To gain approval, a generic medicine must demonstrate bioequivalence to its branded counterpart, meaning it must be identical in dosage form, strength, route of administration, and intended use, while also ensuring comparable safety and efficacy [2]. This regulatory requirement ensures that generic medicines provide the same therapeutic benefits as branded products at a significantly reduced cost, which is crucial for managing healthcare budgets and increasing access to essential medications [3].

Despite these advantages, generic medicines often face skepticism from both patients and healthcare providers. A significant body of research highlights that many patients perceive generic drugs as less effective or of lower quality compared to their branded counterparts [4-5]. This perception can negatively affect patient adherence and ultimately impact health outcomes, as adherence to medication regimens is crucial for the effective management of chronic diseases [6]. Studies have demonstrated that patients' concerns about the efficacy and safety of generic drugs can lead to poorer adherence and increased healthcare costs [7].

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Physicians prescribing behavior is pivotal in the adoption of generic medicines. Influenced by various factors, including their knowledge and attitudes towards generics, as well as external pressures from pharmaceutical companies, physicians play a crucial role in determining whether patients receive branded or generic medications [8] Pharmaceutical companies often employ a range of strategies, including educational incentives and direct promotions, to influence physicians' prescribing patterns [9]. Such practices can create a bias towards branded drugs, despite the availability of cost-effective generic alternatives [10].

Patient preferences also significantly impact prescribing practices. Patients' requests for specific branded drugs, influenced by previous experiences or marketing, can pressure physicians to prescribe branded medications to maintain patient satisfaction [11]. These dynamics highlight the need for effective communication and education strategies to align patient preferences with evidence-based prescribing practices.

The advent of electronic prescribing (e-prescribing) systems represents a significant advancement in reducing prescription errors and improving the efficiency of the prescribing process [12]. By enabling the secure electronic transmission of prescriptions, e-prescribing systems help overcome issues related to illegible handwriting and ensure accurate medication dispensing [13]. Evidence suggests that e-prescribing can reduce medication errors and enhance patient safety, making it a valuable tool in modern healthcare settings [14].

Despite these advancements, barriers to the widespread adoption of generic medicines persist. Addressing misconceptions about their efficacy and safety, minimizing the influence of pharmaceutical marketing, and improving patient and provider education are essential steps in promoting the rational use of generic medicines [15]. Policymakers and healthcare providers must work together to enhance the acceptance and utilization of generic drugs, ultimately leading to better patient outcomes and reduced healthcare costs [16]

MATERIALS AND METHODS

This cross-sectional study was conducted by me using an electronic questionnaire distributed to doctors practicing in government hospitals, institutes, and the private sector in Chhattisgarh, Central India, from February to April 2024. The survey, designed using Google Forms, comprised 26 questions targeting demographics, knowledge, attitudes, and practices related to generic medicines. The inclusion criteria were doctors who completed the questionnaire, while incomplete responses were excluded. The questionnaire included both closed and open-ended questions to capture quantitative and qualitative data. Descriptive statistics were utilized to analyze the data from 67 respondents, including age, gender, employment sector, and prescribing behaviors. The study also explored factors influencing prescription decisions, such as the impact of medical representatives, patient socioeconomic status, and comfort with pharmacists substituting branded drugs with generics. Data analysis was performed using statistical software to generate frequencies and percentages, providing a comprehensive overview of doctors' perspectives on generic medicines. The study aimed to identify gaps in knowledge and areas for potential intervention to promote the rational use of generics. Ethical approval was obtained from the Institutional Ethical Board, ensuring the confidentiality and anonymity of participants's responses.

RESULTS

Demographic Characteristics: The study population ranged in age from 19 to 45 years. Most respondents were employed in government positions, with a slightly higher number of males.

Table: 1

Characteristic	Description
Age Range	19 to 45 years
Employment	Majority in government jobs, fewer in private setups
Gender Distribution	Balanced representation, slightly more males

Prescribing Behavior and Influences: A majority (72%) of respondents prescribe generic medicines regularly. However, 72% are concerned that switching from branded to generic drugs might alter therapy outcomes. Medical representatives influenced 60% of doctors' prescribing habits, and 84% were comfortable with pharmacists substituting branded drugs with generics.

Table: 2

Characteristic	Percentage
Prescribe generic medicines.	72%
Believe switching to generic may change therapy outcomes.	72%
Influenced by medical representatives	60%
Comfortable with pharmacists changing branded drugs	84%

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Factors Influencing Prescription Behavior: A significant number of respondents (76%) prescribed generic medicines, and 68% expressed concerns about therapy outcomes when switching from branded to generic drugs. Medical representatives influenced 54% of prescribing behaviors.

Table: 3

Characteristic	Percentage
Prescribe generic medicines.	76%
Concern about therapy outcome when switching	68%
Influence of medical representatives	54%
Influence of socioeconomic conditions	64%

Socioeconomic Factors and Personal Experience: Patients' socioeconomic status influenced prescription habits for 64% of respondents, and 76% had used generic medicines.

Preferences and Practices: About 52% of respondents were comfortable with pharmacists substituting branded drugs. The ease of remembering brand names affected prescription behavior for 62% of participants. Socioeconomic conditions influenced prescription practices for 78% of respondents.

Table: 4

Characteristic	Percentage
Comfortable with pharmacists changing branded drugs	52%
Ease of memorizing brand names	62%
Influence of socioeconomic conditions	78%

Awareness and Understanding of Generic Drugs: Most doctors (69.44%) recognized that generic medicines are interchangeable with branded drugs, and 72.22% understood that generics can only be marketed post-patent expiry. A large proportion (75.86%) knew that generics have the same composition, dose, and indications as branded drugs, though only 64% were aware that preclinical and clinical studies are not repeated for generics.

Table: 5

Characteristic	Percentage
Awareness of interchangeability with branded drugs	69.44%
Knowledge of the patent expiry rule	72.22%
Recognition of composition, dose, and indications	75.86%
Awareness of not repeating preclinical studies	64%

Perception of Generic Drugs: Most respondents (94%) agreed that generics are crucial for reducing healthcare costs, and 96% believed generics are as effective as branded drugs. However, 46% disagreed that generics are as safe as branded drugs.

Availability and Policy Considerations: A significant proportion (86%) of respondents reported using generic medicines. Opinions were divided on the necessity of training programs to increase awareness of generics, with 50% agreeing. Similarly, 60% supported establishing generic medicine stores in government hospitals.

Table: 6

Statement	Agree	Disagree	Neutral	No Response
Generics are interchangeable with branded drugs.	50	10	6	1
Generics can only be marketed after patent expiration.	52	10	4	1
The composition, dose, and indications of generic drugs match those of branded drugs.	52	12	3	0
Preclinical and clinical studies should be repeated for generics.	20	30	9	0
Generics are important for reducing overall health expenditures.	51	7	8	0
Generic manufacturers need to conduct bioequivalence studies.	48	10	9	0
Physicians should prescribe generics as per the Indian Medical Council Act.	56	4	7	0
Awareness of the Jan-Aushadhi scheme for generic drug	44	12	10	1

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stores.				
Generics are equally efficacious as branded drugs.	45	13	8	0

DISCUSSION

The study reveals that while a majority of doctors in Chhattisgarh regularly prescribe generic medicines, concerns about their efficacy and safety remain prevalent. This finding is consistent with global trends where physicians often acknowledge the cost benefits of generics but still express reservations about their therapeutic equivalence [17] These concerns may stem from persistent beliefs that generics are of lower quality compared to branded drugs [18]. The significant influence of medical representatives on prescribing practices, with 60% of doctors reporting such influence, highlights an important issue. Research from Nigeria underscores that pharmaceutical promotions can notably affect doctors' prescribing decisions, potentially leading to biased choices [19]. This emphasizes the need for stricter regulations and transparency in pharmaceutical marketing to prevent undue influence. Socioeconomic factors also significantly impact prescribing behavior. The study found that 64% of doctors consider patients' socioeconomic conditions when prescribing. This is supported by research in Bangladesh, which indicates that socioeconomic disparities affect drug access and prescribing practices [20]. Addressing these disparities is crucial for ensuring equitable healthcare and improving access to essential medications.

A noteworthy finding is the high level of comfort among doctors (84%), with pharmacists substituting branded drugs with generics. This reflects a strong trust in the equivalency of generic medications. This aligns with studies from Brazil, which show that pharmacists play a key role in promoting the use of generics and ensuring their appropriate use [21]. Nevertheless, enhancing doctors' knowledge about the regulatory and clinical aspects of generic drugs through continuous education could further improve their confidence in prescribing generics. [22] This is in line with the broader acceptance seen in other regions, where pharmacist involvement is pivotal in promoting the rational use of generics. While the acceptance of generic medicines in Chhattisgarh is positive, addressing efficacy concerns, reducing the influence of pharmaceutical marketing, and improving education about generics are essential steps to further enhance their utilization and patient outcomes.

CONCLUSION

This study provides valuable insights into doctors' knowledge, attitudes, and practices regarding generic medicines in Chhattisgarh. While generic drugs are widely accepted and prescribed, ongoing concerns about their efficacy and safety, as well as the influence of pharmaceutical marketing, need addressing. Enhancing access to affordable medicines and improving awareness among doctors are critical for promoting the rational use of generics. Pharmacists play a key role in this process, and their involvement can support the effective use of generics and contribute to improved patient outcomes.

Limitations of Study

This study, while providing important insights, has several limitations that should be noted. Firstly, the sample size of 67 doctors, though informative, may not fully represent the diverse prescribing practices across all government hospitals and institutes in Chhattisgarh. This limited sample size may affect the generalizability of the findings. Secondly, the cross-sectional nature of the study captures data at a single point in time, which may not account for changes in attitudes or practices over an extended period. Additionally, the reliance on self-reported data, while providing valuable direct insights, may introduce response bias. Despite these limitations, the study lays the groundwork for future research by highlighting key areas of concern and identifying gaps in knowledge about generic medicines. Future studies could address these limitations by expanding the sample size, incorporating longitudinal data, and exploring external factors such as policy changes and regional variations in drug availability.

Conflict of Interest

The authors declare no conflict of interest.

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