



Bridging the Gap: Knowledge, Attitude, and Practice of Generic Medicines among Healthcare Professionals

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Abstract

The increasing cost of healthcare, especially in the case of prescription medications, has led to a growing demand for more affordable alternatives such as generic medications. Despite the fact that generic medications have been shown to be bioequivalent, safe, and cost-effective, their acceptance among healthcare professionals has been variable. This study evaluated the knowledge, attitude, and practice (KAP) of generic medications among doctors practicing within 5 km of Government Doon Medical College and Associated Doon Hospital, Dehradun.

A cross-sectional study was carried out for six months (May to October) among 274 registered medical practitioners using a pretested questionnaire. The data was analysed using SPSS version 22.

The results revealed moderate levels of awareness and positive attitudes toward generic medications. While most doctors were aware of the Jan Aushadhi stores and the availability of cheaper alternatives for medications, doubts about equivalent efficacy and substitution by

pharmacists continued. Although most doctors prescribed generic medications to themselves or their family members, only a few regularly prescribed them to their patients.

The study reveals a discrepancy between awareness and practice. Better education, greater transparency, and improved cooperation between doctors and pharmacists may help improve confidence and increase the use of generic medications, which will ultimately help make healthcare more affordable.

Keywords: Generic medications, Knowledge-Attitude-Practice, Prescribing practices, Jan Aushadhi, Cost-effective healthcare

Introduction

The rising cost of healthcare is a significant global challenge, with medication expenses being a major contributor. Prescription drugs constitute a substantial portion of medical expenditures, leading to financial burdens on both patients and healthcare systems.¹ The World Health Organization (WHO) estimates that out-of-pocket healthcare expenses, including medication costs,

account for a significant proportion of total healthcare spending in low- and middle-income countries. One promising strategy to address this challenge is the increased use of generic medicines, which offer a cost-effective alternative to brand-name drugs while maintaining comparable efficacy, safety, and quality.²

Generic medicines contain the same active ingredients as their branded counterparts and must meet rigorous regulatory standards for bioequivalence. They typically cost 50% to 90% less than branded drugs, making them a viable solution for enhancing medication accessibility.³ Governments and healthcare policymakers worldwide have promoted the substitution of branded drugs with generics to reduce healthcare costs and improve public access to essential medicines. However, despite the economic benefits and regulatory assurances, adoption of generic medicines remains inconsistent among healthcare professionals due to a mix of knowledge gaps, misconceptions, and patient concerns.⁴

Healthcare professionals, particularly doctors and pharmacists, play a critical role in the acceptance and utilization of generic medicines. Their prescribing behaviours and dispensing practices directly impact patient access to cost-effective treatments.⁵ Understanding their knowledge, attitudes, and practices (KAP) regarding generic medicines is crucial to identifying barriers and formulating strategies for better integration of generics into routine medical practice.⁶

This article explores the KAP of generic medicines among doctors, analysing existing challenges, misconceptions, and opportunities to enhance their use in healthcare settings. The findings provide insights into potential interventions, such as improving medical education, strengthening regulatory frameworks, and increasing patient awareness programs, to bridge the gap between knowledge and practice.

Materials and Methods

Study area and period

The study was done in Dehradun, Uttarakhand. The Study population included doctors practicing in a 5 km area around Government Doon Medical College & Associated Doon Hospital. The study was conducted for 6 months from May 2024 – October 2024.

Study design

A descriptive cross-sectional study was carried out among Registered medical practitioners (RMPs)/Doctors working in a 5 km area around Government Doon Medical College & Associated Doon Hospital.

Study participants and sampling procedure

The study participants were doctors practicing in government/private setup in Dehradun, in a 5 km radius around Government Doon Hospital. Since there are limited number of clinics in the designated area, all volunteered doctors were included in this study, who further shared the questionnaire with more doctors in the same area, which resulted in snowball sampling. RMPs unwilling to participate were excluded from the study. Participation in the study was merely based on willingness of the participants without any incentive.

Data collection tools and techniques

A questionnaire was adopted from previously conducted researches with some modifications to suit the local context, following which it was validated. It has four sections: the first part contained socio-demographic information and the professional characteristics of study participants. The second part contained questions to test knowledge using a 2-point response format consisting of “Yes,” and “No”. The third section entailed statements to explore attitude toward generic medicines using the 3-point Likert scale where 1 represents agreement and 3 represent strong disagreement. In the fourth section, questions related to the faith and practice of generic

medicines substitution was examined as yes and no with scores ranging from 0 to 1. The questionnaire was a self-administered type. And all doctors practicing in the designated area during the data collection period took part in the study. The questionnaire was administered physically using Google forms to some doctors who further shared to other RMPs in the defined area and responses were collected.

Data processing and analysis

The data were analysed using Statistical Package for Social Sciences version 22 (SPSS22). Frequencies and percentages of responses were produced for each answer in the questionnaire.

Ethical approval process

The study protocol was reviewed and approved by Institutional ethics committee Government Doon Medical College (GDMC/IEC/2024/64).

Table 1: Sociodemographic Characteristics of Doctors (n = 274)

Variables	Category	n (%)
Age	<30 years	104 (38%)
	30–50 years	118 (43.1%)
	>50 years	54 (19.7%)
Gender	Male	156 (56.9%)
	Female	118 (43.1%)
Work Experience	0–4 years	106 (38.7%)
	5–10 years	98 (35.8%)
	>10 years	70 (25.5%)

We found that while a majority of respondents had a favourable perception of generic medicines, knowledge gaps persist in certain areas. For instance, 62.77% of respondents expressed faith in generic medicines, indicating a positive overall attitude. Awareness regarding Jan Aushadhi stores near workplaces was reported by 76.6% of respondents, reflecting moderate familiarity with this government initiative for affordable medicines.

Results

A total of 274 responses were collected from the doctors within 5km radius of Doon medical college and hospital. The sociodemographic data reveals a diverse range of participants, with greater number of doctors being male and in their fourth decade. Most respondents (118) were between 30 and 50, with a significant portion (104) under 30 years old, and fewer (54) over 50. In terms of gender, the majority were male (156), with 118 female participants, highlighting a potential gender imbalance in the sample. The variation in age and work experience suggests that the respondents bring a mix of perspectives, likely influencing their familiarity with and attitudes toward generic medicines. (Table 1)

Regarding brand awareness, 54.01% of respondents had information on brands available in hospital pharmacies, but 71.5% knew about cheaper alternatives to the drugs they prescribe, highlighting a gap in cost-related knowledge. Furthermore, 69.3% of respondents were aware that pharmaceutical companies like CIPLA and Abbott manufacture both branded and generic versions of the same drugs, suggesting a lack of awareness about industry practices.

Encouragingly, 67.2% of respondents recognized that generic medicines are available in injectable formulations, demonstrating some awareness of their diverse availability. However, these findings indicate that while pharmacists and prescribers are generally receptive

to generic medicines, further education is needed to bridge knowledge gaps, particularly regarding cost-effective prescribing practices and industry trends. (Table 2)

Table 2: Knowledge Summary of doctors on generic medicines in Dehradun

Variable	Yes (%)	Count	No (%)	Count
Know about Jan Aushadhi store near workplace	76.6%	210	23.4%	64
Aware of brands in hospital pharmacy	54.01%	148	45.99%	126
Know cheaper alternatives to prescribed drugs	71.5%	196	28.5%	78
Know pharma companies make both branded and generics	69.3%	190	30.7%	84
Aware generics are available in injectable formulations	67.2%	184	32.8%	90

Table 3: Attitude summary of doctors on generic medicines in Dehradun

Variable	Agree (%)	Count	Disagree (%)	Count
Think generics are as effective as branded	45.26%	124	54.74%	150
Prescribe generics to family/themselves	52.55%	144	47.45%	130
Fear pharmacists will change prescription	59.85%	164	40.15%	110
Open to change prescribing habits toward generics	63.50%	174	36.50%	100

Table 4: Practice summary of doctors on generic medicines in Dehradun

Variable	Always (%)	Sometimes (%)	Often (%)	Usually (%)	Disagree (%)	Never (%)
Recommend Jan Aushadhi medicines	1.46% (4)	51.82% (142)	0% (0)	24.09% (66)	0.73% (2)	21.90% (60)
Prescribe generic medicines	0.73% (2)	54.01% (148)	24.09% (66)	0% (0)	1.46% (4)	19.71% (54)
Prescribe generics to family/self	52.55% (144)	0%	0%	0%	47.45% (130)	0%
Open to change toward prescribing generics	63.50% (174)	0%	0%	0%	36.50% (100)	0%

Discussion & Conclusion

The findings of this knowledge, attitude, and practice (KAP) study highlight important insights into doctors' perspectives on generic medicines and their prescribing behaviours. While there is a growing acceptance of generic drugs, concerns regarding their quality, cost-effectiveness, and substitution by pharmacists continue to influence prescribing patterns.

A significant proportion of doctors recognize the potential of generic medicines in improving affordability; however, their prescribing habits remain inconsistent. Despite 52.55% of respondents stating that they prescribe generic medicines for themselves and their families, only a small fraction (0.73%) actively prescribe generics for their patients in all cases. This suggests that while doctors may trust generics on a personal level, external factors such as patient expectations, pharmaceutical

marketing, and institutional guidelines may influence their prescribing decisions.

Cost consideration in prescribing practices is crucial for enhancing healthcare accessibility. However, awareness of cost-effective alternatives remains variable, with only 2.19% of respondents fully aware of drug pricing. Additionally, 71.53% acknowledged knowledge of cheaper alternatives, yet a significant proportion remains uninformed about available lower-cost options. Increasing awareness through targeted educational programs on drug pricing, government schemes like Jan Aushadhi, and cost-effective prescribing guidelines could help bridge this gap.

The primary concern among doctors remains the quality and efficacy of generic medicines, with 54.74% disagreeing that generics are as effective as branded drugs. This scepticism highlights the need for quality assurance measures and confidence-building initiatives to reinforce trust in generic drugs. Regulatory bodies must ensure stringent quality control for generics, while policymakers should focus on educating doctors about bioequivalence standards and efficacy data of generic medicines. Workshops, clinical exposure, and real-world evidence showcasing the therapeutic equivalence of generics could be instrumental in shifting perceptions.

Another major issue identified in this study is the fear that pharmacists may substitute the prescribed generic medicine with a brand of their choice if doctors write prescriptions using generic names. This concern was reported by 59.85% of respondents, indicating a lack of confidence in pharmacy-based substitution practices. Addressing this issue requires a collaborative approach between doctors, pharmacists, and regulatory authorities. Clear guidelines on generic substitution policies, coupled with transparency in pharmacy practices, could help alleviate such concerns. Strengthening doctor-pharmacist

communication and ensuring that only high-quality generics are dispensed can improve trust in the prescribing and dispensing process.

A crucial issue that needs attention is that many generic drugs come with different brand names, leading to confusion. If regulatory agencies enforce generic-name prescriptions, all generic drugs should display their generic name without ambiguity, regardless of the manufacturer. Standardization in labelling will prevent confusion among prescribers, pharmacists, and patients, ensuring transparency in drug selection. Additionally, the availability of standardized generic medicines should be ensured in every hospital and medical store to make generic drug prescribing a viable option.

Furthermore, public awareness needs to be increased so that patients themselves can demand cost-effective medicines from pharmacists. Educating patients about their right to request generics and providing information about their equivalence to branded medicines can play a crucial role in increasing their acceptance and utilization.

Another concern is the availability of truly generic medicines in Jan Aushadhi stores. It has been observed that these stores, rather than providing pure generics, are dispensing generic drugs manufactured by major pharmaceutical companies like Cipla at a 70% discount. While this still makes medicines more affordable, it raises concerns about whether true generic alternatives are being promoted effectively. Regulatory bodies should ensure that Jan Aushadhi stores prioritize the distribution of unbranded generics alongside discounted branded generics, maintaining the original intent of the program.

Encouragingly, 63.50% of respondents expressed openness to changing their prescribing habits towards generics after completing the survey. This indicates a potential shift in attitudes, provided that appropriate training and interventions are implemented. Initiatives

such as prescribing guidelines, quality assurance frameworks, and awareness programs on the cost-effectiveness of generics can play a crucial role in promoting rational prescribing practices.

In conclusion, while doctors acknowledge the role of generic medicines in making healthcare more affordable, quality concerns, labelling inconsistencies, and prescribing autonomy remain key barriers to their widespread acceptance. Addressing these concerns through stringent regulatory mechanisms, enhanced awareness, standardized labelling, improved drug availability, and better collaboration between healthcare stakeholders can pave the way for increased generic medicine utilization, ultimately benefiting both patients and the healthcare system.

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