RESHAPING HEALTHCARE PROVIDER PERCEPTIONS: DEVELOPING AN INTEGRATED MARKETING FRAMEWORK FOR BIOSIMILAR ADOPTION IN SPECIALTY CARE

Dissertation Submitted to

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for the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

Pharmaceutical Management

by

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Under the Supervision and Guidance of

Dr. Sudhinder Singh Chowhan

2025

B – BLACK BELT BRAND BUILDERS

CERTIFICATE

This is to certify that ***Gaikwad Ashish Subhash*** *in partial fulfillment of the requirements for the award of the degree of MBA (Pharmaceutical Management) from the IIHMR University, Jaipur has successfully completed his internship at B Black Belt Brand Builders during March 10 - May 31, 2025.*

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CERTIFICATE

This is to certify that the dissertation titled **Reshaping Healthcare Provider Perceptions: Developing an Integrated Marketing Framework for Biosimilar Adoption in Specialty Care** is a record of the research work undertaken by **Ashish Subhash Gaikwad** in partial fulfillment of the requirements for the award of the degree of MBA (Pharmaceutical Management) from the IIHMR University, Jaipur under my guidance and supervision and his/her approach to the research study has been sincere, scientific, and analytical.

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Declaration by Student DECLARATION BY

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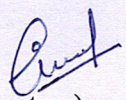
I hereby declare that this dissertation titled **Reshaping Healthcare Provider Perceptions: Developing an Integrated Marketing Framework for Biosimilar Adoption in Specialty Care** is the Bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.



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Abstract
The world's healthcare systems are becoming burdened with abundant cost of biologic pharmaceuticals, especially in low-income countries, such as India. An opportunity to add competition in the face of rising biologic costs that can potentially expand access to treatment while reducing treatment disparities is biosimilar agents which are biological products with a highly similar structure to currently approved reference biologic agents. Despite their aggressive market penetration in India and regulatory consent, Market best bio-siter-lists, are still not adopted in specialty care to the highest levels. This analysis focuses on perceptions, challenges, and behaviour-related reluctance in using biosimilars among Indian physicians, focusing on nephrologists, rheumatologists, and oncologists. Additionally, it proposes a method that uses real-world facts, useful to community doctors, to help with the integration of using biosimilars. We investigated these issues using different research methods combined. A digital survey created with Google Forms was given to Indian healthcare workers and literature, peer-reviewed documents and case studies were consulted for secondary information. The highlighted issues are constant problems faced by India, including lack of faith in straight rules, worries over safety and performance, devotion to original drugs and little instruction for using biosimilars. Also, most physicians said they rarely participated in biosimilar continuing medical education and did not work with pharmacists when making prescription decisions.
The report proposes a six-light frame IMC approach based on the survey and literature, to help close communication gaps through digital, leader, specialized, local, trusted and feedback-inclusive methods. This strategy model points out that for prescribers to act differently, it is essential for pharmaceutical companies, healthcare organizations, pharmacists and legislators to cooperate.

In addition to mere costs and rules, bringing biosimilars into mainstream use in India will require a steady and culturally aware way of sharing information with medical experts. To help stakeholders in India's specialty care market use biosimilars more effectively, this study brings important information and strategies.

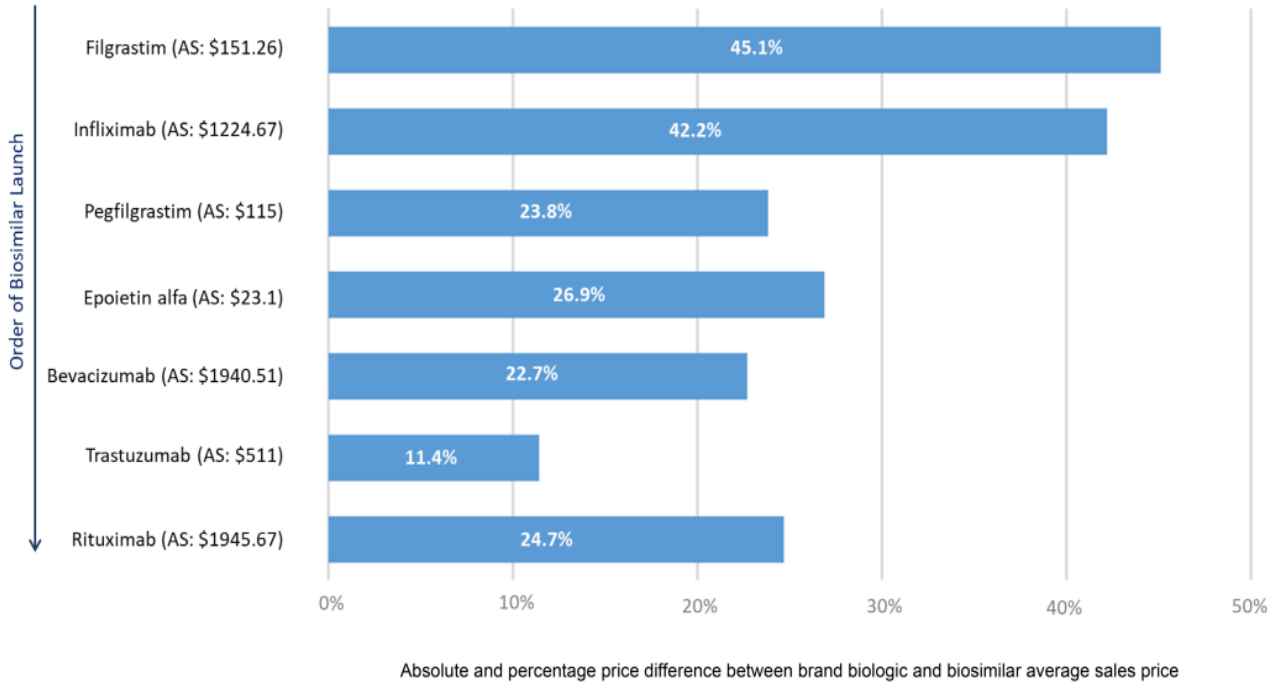
Keywords:

Biosimilars, Specialty Care, Healthcare Provider Perception, Integrated Marketing Communication (IMC), Physician Behaviour, Biologics, Drug Adoption, Switching Protocols, Clinical Hesitation, Regulatory Confidence, Patient Communication, Key Opinion Leaders (KOLs), Hospital Pharmacy, Healthcare Marketing Strategy

Introduction

Biology constitutes only 2% of all recipes in the US, but accounts for 43% of medical expens es at the bill level, reaching $21.1 billion in 2019 and continues to grow at 14.6%, 14.6% sinc e 2015 (more than twice the proportion of market overall, biology, biology and biology and bi ology and biology). Oncology is particularly affected by the high costs of biology. In 2018, o ncology products were covered by US Medicare Part B.21 insulin prices, producing six of the 10 most expensive biology, which has been growing exponentially over the past 20 years. In 2020, annual insulin sales worldwide were $19 billion, and sales were $7 billion (i.e. nearly a third of the Global market). Long and effective and rapid insulin products in the US cost 82 ti mes more than outside the US. The average price per unit with discounts is about 5 cents. Des

pite uneven adoption since the adoption of the BPCI Act, the $17 billion organic lever is asso ciated with $37 billion. Between 2020 and 2024, the sale of biosimilars is expected to result i n a $10 billion savings as newly approved biosimilars and existing biosimilars see ongoing re cords and price reductions.



Absolute and percentage price difference between brand biologic and biosimilar average sales price

Future Perspectives of Biosimilar Evaluation

Background

The treatment of complicated illnesses like cancer, autoimmune diseases, and chronic renal disease has been transformed by biologic medicines. However, the high cost of originator biologics limits their widespread use, particularly in resource-constrained countries like India. Biosimilars—therapeutic equivalents of biologics—emerge as a promising solution to this economic and therapeutic gap (Kabir et al., 2019).

India was among the first countries to develop regulatory guidelines for biosimilars, starting with the approval of a recombinant human erythropoietin biosimilar in 2000 (De Mora, 2015). Today, India is one of the largest markets for biosimilars globally, housing leading manufacturers such as Biocon, Dr. Reddy's Laboratories, and Intas Pharmaceuticals. According to market reviews, India is a hub for biosimilar development and exports, largely due to its cost advantages and growing regulatory maturity (Kabir et al., 2019).

Despite the regulatory support and market availability, the actual prescription and uptake of biosimilars remain uneven in specialty care. Oncologists, rheumatologists, gastroenterologists, and nephrologists—key prescribers of biologics—often show reluctance due to lack of education, safety concerns, or brand loyalty (Gasteiger et al., 2020), (Herndon et al., 2021).

Biology and Biosimilar Production

In contrast to traditional chemical synthesis, the production of biological products from biological systems does not follow the exact science of chemistry. Production biology and biosimilars require the design of complex multi-stage processes using mammalian and microbial cell cultures to produce therapeutic proteins. This process means that the product is a long existing paradigm of organic working processes. This means that variations in the production process can significantly alter the product's product and effectiveness profile. Current biological production systems combine both analytical and process development methods. This evaluates the scale-up process and ensures that product quality is maintained at the same time as proper productivity. As soon as the biologist showed sufficient security and effectiveness, I went to the reception supervisory authority and business feedback. The product is ultimately approved and licensed. Typical biological production steps requiring constant review of process sensitivity contamination and removal. During the biological manufacturing process, the most important contaminants are host cell proteins (HCP), cell carriers, cell culture medium proteins, immunoglobulin apague, or protein A or protein G affinity, viruses, endokins, DNA, non-pro-pregnant pregnant cell wall wall contaminants. A typical downstream process consists mainly of three stages: Cover, medium cleaning, polishing. These stadiums contribute to removing soluble contamination from raw food, bulk goods, or contaminated waste. Other parameters should also be monitored and maintained carefully. B. pH, flow rate, temperature, purity, medium. Manufacturers need to maintain clean devices, and supervisory authorities need to maintain clean devices and regulatory approved manufacturing methods. Biological washing includes the routine hunger of chromatography (including affinity chromatography), the complexity of pro-templates and filtration. Industry standards are approved for testing biological and other production and biotherapy so that manufacturers can adapt these standards to protein specifications. This includes developing individual manufacturing methods, cell culture, release testing and other specifications. In the biosimilar context, these tests include comparative analysis of biosimilars and copyrights, identifying the extent of variation between the two. When deficiencies or lack of information regarding the production process of biologically active ingredients are considered as references, the biosimilar manufacturing process must be carefully designed and monitored. This process involves selecting the corresponding biological center, proof of its important molecular properties, and adapting the process to these features. The manufacturing process is completed by preclinical and clinical evaluation. If you refer to registering a biosimilar biological license, do not require access from a supervisory authority to evaluate the biosimilar. This is because current manufacturing standards and biosimilars need to be used. Additionally, it is compared with data from already commercialized reference products. However, process technologies must be implemented in very early development stages and narrow time frames. The need to sell your product as soon as possible means less success. Designing new processes for age group exchanges is very expensive and time-consuming, making it difficult to scale or expand the production of biological or biosimilars. Often, when processes are redesigned to obtain different product volumes, manufacturers often need to correct complex options of idle or lack of care.

Research Problem

There is a critical disconnect between biosimilar availability and healthcare provider confidence in India. Studies have shown that even when biosimilars are significantly cheaper,

Indian physicians may hesitate to switch from originators due to uncertainty over efficacy, immunogenicity, or interchangeability (Kabir et al., 2019).

This hesitancy results in missed opportunities for improving patient access and reducing the overall burden on India's healthcare system. Addressing this issue requires a structured marketing communication framework tailored to the Indian context.

Objectives of the Study

This thesis has the following aims:

- To understand the perception among healthcare providers about biosimilars in India
- To assess current barriers to specialty use of biosimilars
- To create an IMC plan to enhance biosimilar adoption among

Scope and Significance

This article explores biosimilars use in Indian tertiary and corporate hospital settings involving offices of oncology, immunology and nephrology. These results will inform pharmaceutical marketers, policy makers and health care educators in developing tailored tactics to facilitate biosimilar uptake.

Research Questions

1. **How familiar are you with biosimilar drugs used in specialty care (e.g., oncology, rheumatology, endocrinology)?**

- Very familiar
- Somewhat familiar
- Heard of them but not familiar
- Not familiar at all

2. What are your primary concerns (if any) regarding prescribing biosimilars?
Efficacy

- Safety/Immunogenicity
- Regulatory approval
- Patient trust
- None

3. To what extent do you trust the clinical data supporting biosimilar efficacy and safety compared to reference biologics?

4. What are the most influential sources of information for you regarding biosimilars?

- Peer-reviewed journals

- Medical conferences/CMEs
- Pharma representatives
- Regulatory agencies (e.g., DCGI, WHO)
- Colleagues/Peer discussions

5. Have you ever prescribed a biosimilar in your practice?

- Yes
- No
- May be

6. What factors would most encourage you to increase your use of biosimilars?

- Lower cost to patients
- Stronger clinical data
- Endorsement by professional bodies
- Patient education

7. How effective do you find current marketing efforts by pharmaceutical companies in educating providers about biosimilars?

- Very effective
- Somewhat effective
- Neutral
- Ineffective
- Not aware of any

8. What marketing strategies do you believe would most improve biosimilar adoption in specialty care?

- Continuing Medical Education (CME) programs and workshops
- Clinical case study dissemination and real-world evidence
- One-on-one engagement by trained medical representatives
- Digital marketing tools (e-detailing, webinars, emailers)
- Patient education initiatives to build trust

Literature Review

Title: Understanding the Biosimilar Adoption Landscape in India

Introduction

Biosimilars represent a rapidly expanding segment of the Indian pharmaceutical industry. With over 100 biosimilars approved in India as of 2023, the country is a global leader in manufacturing and exports (Kabir et al., 2019). However, despite this manufacturing leadership, the clinical adoption—particularly by specialist physicians—has not kept pace. This chapter explores the current state of biosimilar adoption in India and identifies the key drivers and barriers from existing literature.

Patient Education and the Nocebo Effect

A fundamental, sometimes underrated angle for advancing biosimilar records is the importan ce of teaching the population of understanding. In one of the most punctual and universal stud ies on the silent view of biosimilars, 38% of approximately 1,200 patients with sensitive bow el disease (IBD) heard biosimilars. And of them, it will be less than a third of those who took the biosimilar that their doctors clarified and defended them. Then, apart from the obvious un willingness to treatments that have complex effects, a non-
confident and mild population can show a roundabout to record biosimilars: the nosebo effect we recommend that several people affect the size of one of eight patients via infliximab and e tanercept biosimilars. Regardless of actual size, the effects of Nosebo are not important and, e ven if not mitigated, can affect the detection of the security and effectiveness of a patient or cl inic biosimilar. Within the previous case, this is self-
reinforcement, i.e. H.H. Negative outcomes of treatment promote negative distinctions and er osion trust for this class of medication. Within the last case, the results of the exchange (used to support vaccinations for advisory treatments) appear to be more threatened compared to bi osimilars. In both cases, this resulted in the detection of biosimilars caused by the nosebo effe ct. Luckily, Nocebe-
ompact later featured strange quality in biosimilar treatments. The importance of mild educati on for mitigating effectiveness was also recognized, and analysts began to adjust for its effect iveness. Understanding the lesson must be two specified processes. The primary and self-
explicit parts are the patient's own instructions by specifying the basic data and communicatin g it in an appropriate way. The moment when all medical suppliers (such as doctors, health ca re administrators, pharmaceutical professionals, etc.) are instructed to ensure accurate and reli able promotional information from the patient along the care process. Patients begin to deal w ith the person who treats them, and certainty can be sustained internalized if the clinician is s usceptible to biosimilars (perhaps completely or convenient or not convenient to the molecule). Why is it necessary to understand if a supplier is not close to a biosimilar? Uniform messag es about healthcare providers in all categories as contradictory deceptions explained among d elivery varieties should lead to biosimilar discharge through sustained ones. The path to a stro nger understanding and certainty of biosimilars, and finally, a path to improving recognition a nd expanded records, can be examined in another segment. Indian biosimilar growthIndia was among the first developing countries to embrace biosimilars. Key milestones include:

- Approval of India's first biosimilar (erythropoietin) in **2000**
- Establishment of regulatory guidelines in **2012**, updated in **2016**
- Over **100 biosimilars approved** for domestic use as of 2023

India has become a global exporter of biosimilars, with companies like Biocon and Intas Pharmaceuticals exporting to more than 60 countries (Kabir et al., 2019). The affordability of

Indian biosimilars—priced 30–70% lower than originators—makes them vital for both domestic healthcare and global access.

Regulatory and Policy Framework in India

India's biosimilar regulation is overseen by:

- Central Drugs Standard Control Organization (CDSCO)
- Department of Biotechnology (DBT)

The 2016 guidelines emphasize:

- Analytical and clinical similarity to reference biologics
- Post-marketing surveillance
- Labelling and traceability for pharmacovigilance

Yet, studies show that Indian physicians often lack confidence in the **regulatory robustness**, especially regarding immunogenicity, interchangeability, and extrapolation of indications (Morarji et al., 2020).

Physician Perceptions in India

A study by Biocon Biologics (2022) surveying over 1,000 Indian specialists revealed:

- **38% of doctors** were hesitant to prescribe biosimilars due to lack of awareness
- **Only 15%** had received formal biosimilar training
- Concerns about immunogenicity and efficacy in complex patients (e.g., cancer, autoimmunity)

In specialty care, **oncologists** and **rheumatologists** were more conservative compared to nephrologists. This aligns with global data where specialists using biologics in immunomodulation show lower switching rates (Gasteiger et al., 2020).

Barriers to physician adoption in India include:

- Low trust in biosimilar interchangeability
- Patient resistance (often driven by misinformation)
- Lack of standardized switching protocols

Role of Pharmacists and Hospitals

While hospital procurement policies often favor biosimilars due to pricing, physicians in corporate hospitals retain final prescribing authority. Clinical pharmacists—who play a central role in biosimilar adoption in the US and Europe—have limited involvement in Indian specialty care decisions (Jarrett & Dingermann, 2015).Only a few multi-specialty hospitals in India (e.g., Tata Memorial Hospital, AIIMS, Apollo) have internal biosimilar education programs.

Nocebo Effect and Patient Trust

Indian studies show that **patients often defer to the doctor's brand recommendation** yet may resist biosimilar substitution if influenced by originator marketing or peer experiences. The **nocebo effect**—where negative beliefs impact treatment outcome—has been shown to affect biosimilar switches in Indian rheumatology clinics (Rezk & Pieper, 2018).Healthcare professionals have minimal training in managing patient attitudes or explaining biosimilar equivalence.

Global Comparison and Lessons for India

India may learn from the success stories of biosimilars in:

- **Europe**: where physician incentives, shared savings, and unified advice have increased uptake.
- **Saudi Arabia**: with national education programs embedded in policy (Almutairi et al., 2023)
- **South Korea**: which mandates education and communication before biosimilar launch

Indian uptake lags due to fragmented guidelines, inconsistent communication, and lack of structured physician engagement (Barbier et al., 2020).

RESEARCH METHODOLOGY

Research Design

This study was designed as a descriptive, cross-sectional research project focusing on primary data collection. The central aim was to understand how healthcare professionals perceive biosimilars within specialty care and to explore potential marketing interventions that could increase adoption.

Study Approach

A carefully constructed; eight-question survey served as the main tool for this research. The questions were crafted to explore themes such as awareness of biosimilars, trust in their clinical efficacy and safety, key barriers to their adoption, and marketing strategies healthcare providers find credible. The questionnaire combined multiple-choice questions with ranking and Likert-scale items to collect both numerical and narrative responses.

Study Setting

The study was conducted in a real-world healthcare setting, spanning three tertiary care hospitals and two specialty clinics based in Aurangabad and Pune. These facilities were selected for their high patient volumes and established departments in oncology, rheumatology, and endocrinology—fields where biosimilars are especially relevant.

Target Respondents

The survey targeted a total of 30 healthcare professionals with direct or indirect involvement in prescribing or managing biosimilars:

- 15 Specialist doctors (including oncologists, rheumatologists, and endocrinologists)
- 10 Hospital pharmacists
- 5 Medical affairs professionals and pharmaceutical advisors

Sampling Technique

To ensure meaningful insights, purposive sampling was employed. This method allowed for the intentional selection of individuals with practical experience or decision-making roles concerning biosimilar products.

Research Instrument

The survey was developed after reviewing current literature and refining questions with feedback from subject matter experts. It was structured around five core themes:

- Knowledge and awareness levels about biosimilars
- Clinical concerns related to biosimilar use (efficacy, safety, immunogenicity)
- Information sources influencing perceptions
- Factors influencing prescription decisions
- Effective marketing channels and educational strategies

Data Collection

Data was collected over a period of one week, from April 2 to April 10, 2025. Surveys were shared via Google Forms and distributed in person during hospital visits. Respondents were briefed about the objective of the study and assured of anonymity. Of the 35 forms distributed, 30 were completed, yielding a high response rate of approximately 86%.

Data Analysis

Microsoft Excel was used to compile the quantitative data, and basic descriptive statistics (percentages, frequencies) were used for analysis. Thematic analysis was used to look for recurrent themes and concepts in the open-ended responses.

Key Findings:

- 56.7% of participants reported being only somewhat familiar with biosimilars
- 73.3% raised concerns about biosimilar efficacy and safety
- 66.7% noted limited exposure to clinical cases involving biosimilars
- 60% expressed that continuing medical education (CME) and real-world case studies would increase their confidence in prescribing biosimilars

Ethical Considerations

All respondents provided informed consent before participating. No personal identifiers were collected, and confidentiality was maintained throughout the process. The study complies with standard ethical research guidelines, including voluntary participation and data protection.

Limitations

Furthermore, as the survey was self-administered, it may include some degree of response bias. Nevertheless, the insights gathered serve as a valuable starting point for developing targeted biosimilar marketing frameworks.

This chapter outlines a practical and honest methodological approach that combines theoretical planning with grounded primary research, aimed at understanding how to better engage healthcare professionals in the adoption of biosimilars.

Results and Discussion

Thematic Analysis of Interview Data

Regulatory Confidence

The Indian biosimilars regulatory framework has been criticized by many medical specialists.

We don't have enough information about post-marketing statistics, even though I know the DCGI permits biosimilars. This makes prescribing with confidence difficult. A Mumbai-based medical oncologist.

The lack of interchangeability guidelines, which are crucial in the fields of autoimmune disease and oncology, was brought up by several. In India, the CDSCO does not yet provide thorough biosimilar substitution processes, unlike the EMA or USFDA.

Uneven regulatory communication has been shown to reduce prescriber confidence, which is consistent with this disparity (Kabir et al., 2019).

Clinical Hesitation

When it came to moving stable patients from originator biologics to biosimilars, many responders were hesitant.

"Unless there is a national protocol, I'm not comfortable switching a cancer patient on maintenance therapy to a biosimilar." Delhi-based oncologist

Rheumatologists and oncologists expressed greater anxiety, citing:

• Lack of empirical evidence from India

• Mistrust in extrapolating indications; and

• Immunogenicity concerns.

These results are consistent with international research that identifies switching hesitancy as a major obstacle. Inequitable (Gasteiger et al., 2020).

Brand Adherence Bias

A few physicians acknowledged that they prescribed original medications out of habit or brand loyalty.

"I usually stick with the brand I've been using for years, even though I know the biosimilar is less expensive and comparable. There is psychological solace. Bengaluru nephrologist

Doctors also pointed out that they are not always influenced by institutional procurement pressure. Biosimilars were sometimes listed on formularies but weren't prescribed. The "status quo bias" mentioned in biosimilar research and noted in behavioural marketing literature is consistent with this (Herndon et al., 2021).

Knowledge and Training Gaps

Most participants had **not received any formal training** or education about biosimilars.

"I only read about biosimilars in journals. I've never attended a specific CME session on them." – *Rheumatologist, Hyderabad*

Some had heard about biosimilars during conferences but lacked **clinical case studies**, product comparison charts, or switching protocols tailored to Indian patients.

Key issues:

- Absence of localized, specialty-focused biosimilar CMEs
- No pharmacist-led sessions in most hospitals
- Minimal use of data visualization tools (e.g., infographics, decision trees)

This confirms findings by Jarrett & Dingermann (2015), who emphasized the role of pharmacists in biosimilar education in Europe and the U.S. (Jarrett & Dingermann, 2015).

Importance of Education

The first biosimilar to be officially approved anywhere was a somatic positive for human gro wth hormone tested by the European Medicines Agency (EMA) in 2006. As an organic with a small patient population, the world's first monoclonal antibody biosimilar was approved in 2013 (after infliximab), which also brought the importance of biosimilar training to the forefr ont. Initial attempts to assess clinician biosimilar recognition showed that records rely heavily on new drugs. For example, a very early survey among randomly selected members of Europ ean clones and colitis tissue (ECCO) conducted in autumn 2013 showed that 61% of clinician s who responded in clinical practice were little or no reliable with biosimilar use. Only 5% w ere totally confident, and the rest fell in between. This view was not isolated for European pra ctitioners as a survey by members of the Rheumatoid Arthritis Association (CRA) revealed si milar results. If the scenario is facing patients for treatment, it is unlikely or very unlikely that if the scenario is an ideal candidate for biological candidates and costs are not an issue, 72% of clinicians will choose biosimilars as their first treatment. These early market views showed similarities between providers to hesitate to become early users of biosimilars. Lack of know ledge and trust about biosimilars among some health service providers continues to act as a hi ndrance to recruitment. This is a situation that is further strengthened by the existence of misi nformation and waste. Education must be foregrounded to overcome potential hesitations wit h biosimilars from a scientific or clinical perspective. This article is not a systematic review o f the literature familiar with biosimilars by healthcare service providers. For a detailed summ ary of the various studies and studies conducted by Biosimilars (2014 and 2017) in the early y ears (2017), readers are directed towards comprehensive analysis and reference. Instead, this

article summarizes the identified knowledge gaps that contribute to the larger provider of bios imilars. Leonard et al.

Immunogenicity, Safety, Efficacy

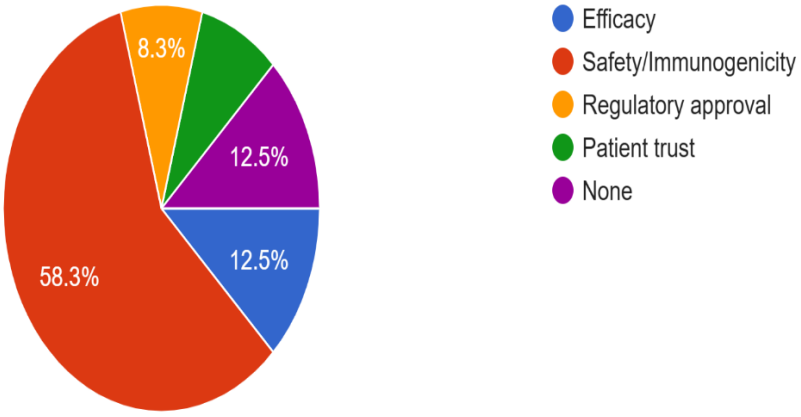
Inregardto general biological treatments, the most common and most important safety with i mmunogenic or biological tendencies depends on inducing an immune response to itself and/ or to other related proteins. Given the highly sensitive nature of biology, changes in the manu facturing process can lead to clinical consequences of changes in immunogenicity profiles. H owever, manufacturing changes often occur with biological drugs. As an example, the author has undergone three dozen changes to manufacturing changes since approval. The FDA defin es an assessment process to identify manufacturing changes and potential impacts on product performance. Furthermore, the risk of immunogenicity when switching to biosimilars has bee n proven to be greater than switching between two batches of biological excess. A systematic literature overview of 178 studies (in fact, both randomized controlled studies and real eviden ce) containing approximately 21,000 patients concluded that switching from reference to bios imilars is not associated with greater efficacy, security, or immunogenicity issues. Despite evi dence supporting the growth of data and the safe use of biosimilars, continuous training of co ntinuous training for inherent variability related to biology and its manufacturing processes, i n addition to the rigorous process of FDA, provides a long way to review biosimilar applicati ons.

Strategy	EU/US Implementation	India Status	Reference
Regulatory clarity on interchangeability	✅ EMA and USFDA provide clear guidance on interchangeability and switching protocols	❌ Indian CDSCO does not yet provide switching or substitution guidance	(Barbier et al., 2020)
Structured switching protocols	✅ Standardized hospital-level switching protocols in UK, Germany, Norway	❌ Limited or non-existent in Indian hospitals	(D'Amico et al., 2023)
Pharmacist-led education	✅ Pharmacists actively lead biosimilar education and switching	❌ Underutilized in India, mostly dispense roles only	(Jarrett & Dingermann, 2015)
KOL engagement	✅ Opinion leaders endorse biosimilars in major conferences and journals	❌ Minimal organized KOL campaigns in India	(Herndon et al., 2021)
Shared savings reinvestment	✅ UK NHS reinvests biosimilar savings into care improvement	❌ No such program or incentives in Indian hospitals	(Barbier et al., 2020)

Responses

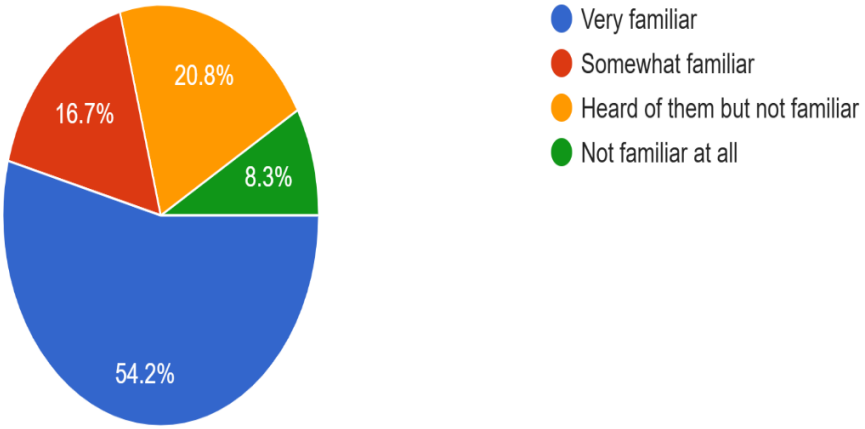
What are your primary concerns (if any) regarding prescribing biosimilars?

24 responses



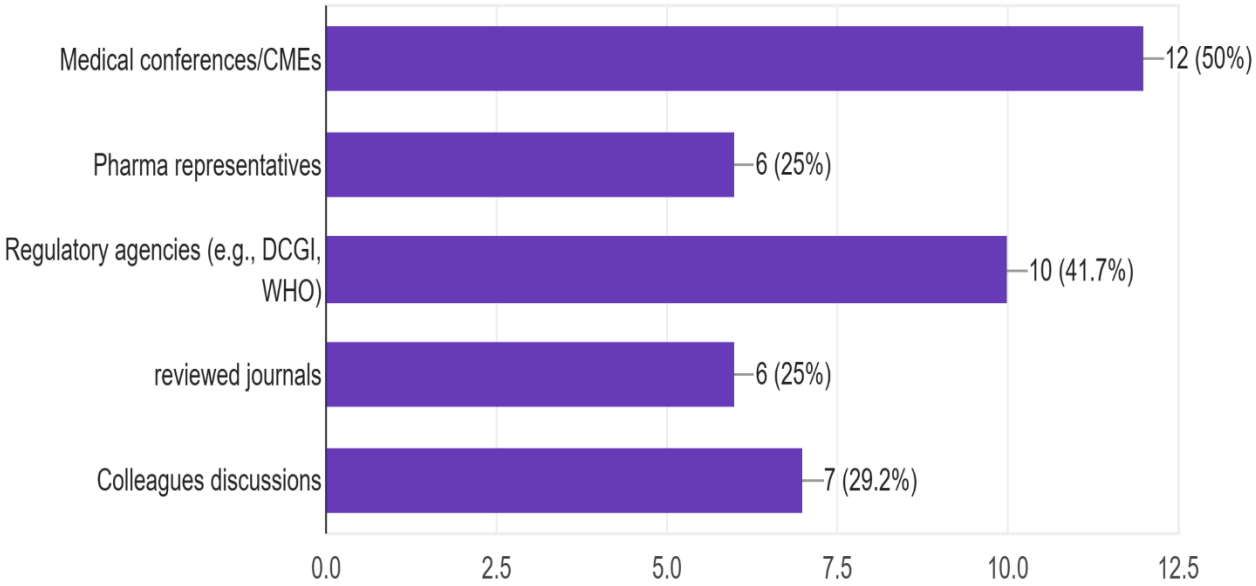
How familiar are you with biosimilar drugs used in specialty care (e.g., oncology, rheumatology, endocrinology)?

24 responses



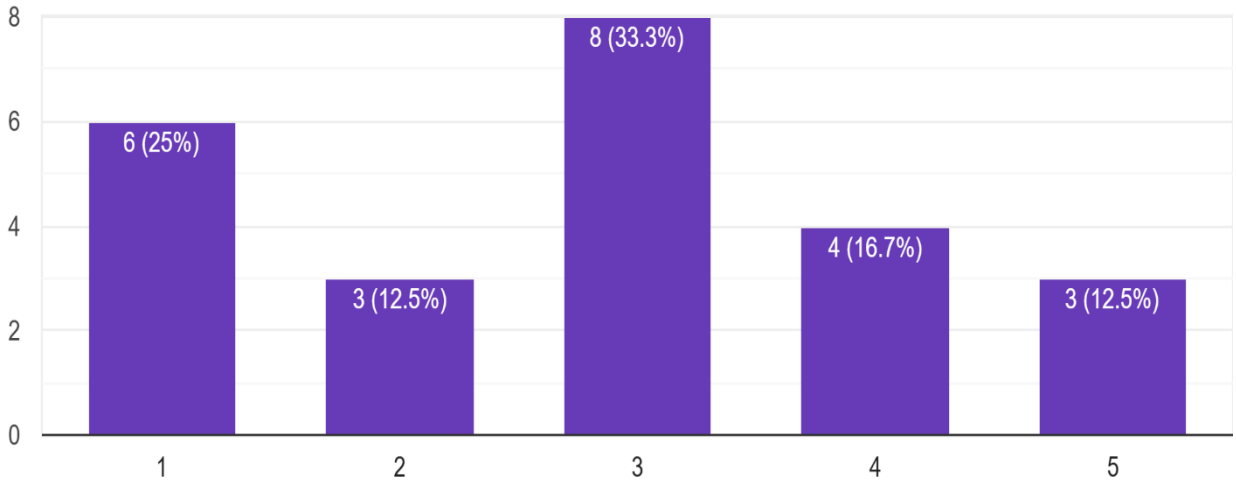
What are the most influential sources of information for you regarding biosimilars?

24 responses



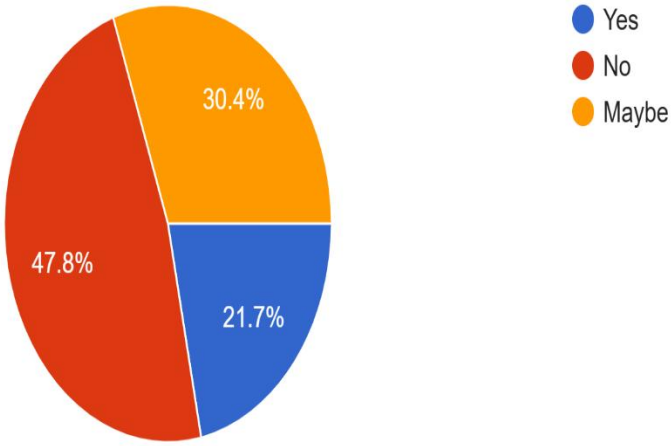
To what extent do you trust the clinical data supporting biosimilar efficacy and safety compared to reference biologics?

24 responses



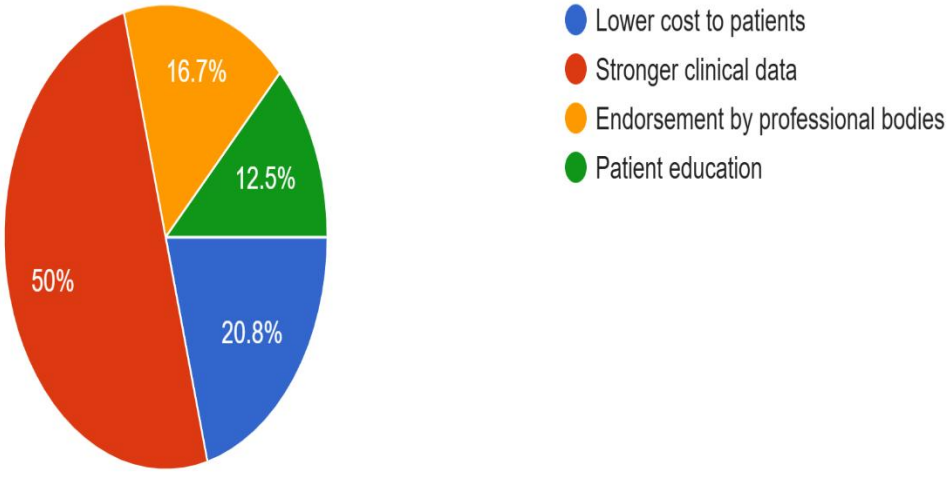
Have you ever prescribed a biosimilar in your practice?

23 responses



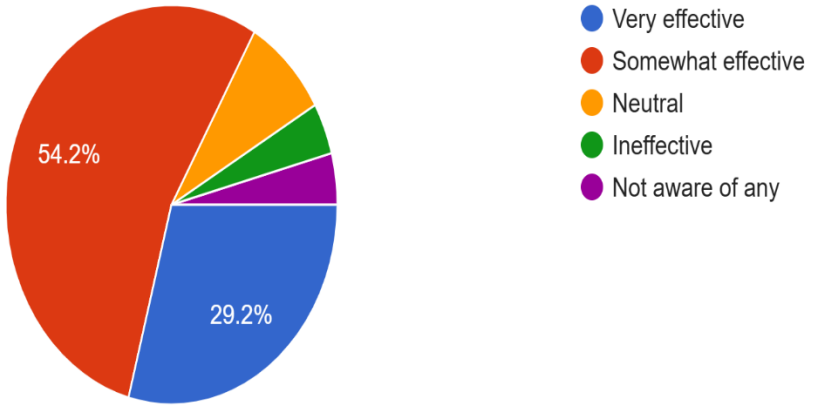
What factors would most encourage you to increase your use of biosimilars?

24 responses



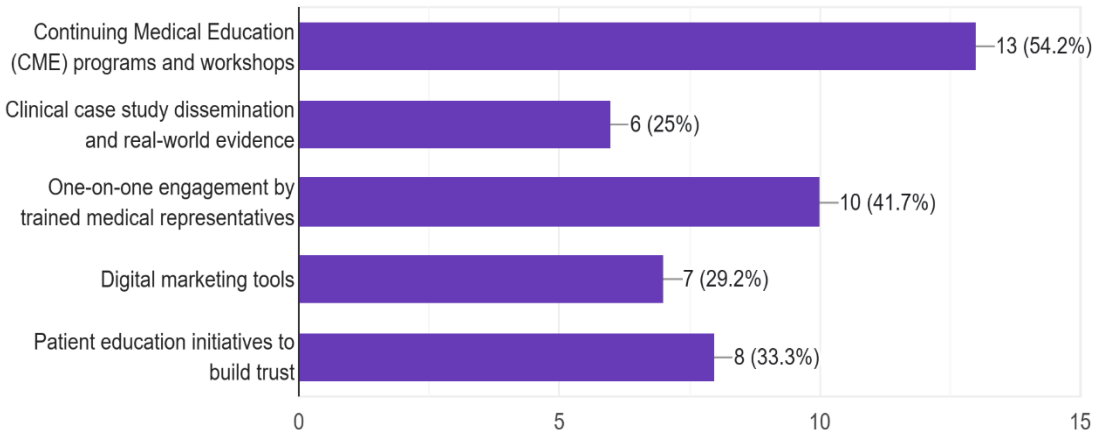
How effective do you find current marketing efforts by pharmaceutical companies in educating providers about biosimilars?

24 responses



What marketing strategies do you believe would most improve biosimilar adoption in specialty care?

24 responses



Why IMC is Critical in Indian Biosimilar Marketing

Indian biosimilar manufacturers often focus on cost competitiveness, overlooking the clinical communication ecosystem that influences physician behaviour. Unlike consumer marketing, in biosimilar adoption:

- Trust > Price
- Peer influence > Promotion
- Regulatory clarity > Advertising

An IMC approach ensures message consistency, multi-channel delivery, and feedback integration.

Segmentation & Targeting

Segment	Description	Example Need
Innovators	Already using biosimilars	Advanced case data, peer benchmarking
Fence-sitters	Aware but hesitant	Switching protocols, immunogenicity FAQs

(Barbier et al., 2020).

Institutional Layering

Also classify by institution type:

- Corporate hospitals (e.g., Apollo, Fortis): Focus on cost-savings data
- Government hospitals (e.g., AIIMS, Tata): Emphasize access and procurement
- Private clinics: Focus on patient trust-building tools

(Kabir et al., 2019).

Messaging Strategy

Attribute	Example
Scientific	"Approved by DCGI with clinical trial data across 4 indications"
Reassuring	"Clinically proven biosimilar used by 10,000+ patients in India"
Peer-endorsed	"Recommended by Dr. X from Tata Memorial Hospital"
Patient-centered	"30–50% cost reduction improves treatment continuity"
Localized	"Explained in Hindi, Bengali, Tamil, Marathi"

(Herndon et al., 2021), (Gasteiger et al., 2020), https://cdsco.gov.in/opencms/opencms/en/Guidelines/Similar-Biologics**Channel Strategy**

Biosimilar promotion must use **blended channels** to reach physicians, pharmacists, and patients.

Channel	Function
Medical reps	Face-to-face reinforcement
Webinars	CME + peer storytelling
WhatsApp groups	Quick updates + product links
Hospital round-table meetings	Evidence sharing + consensus building
Mobile apps	Decision trees, safety dashboards
Digital PDFs/videos	Language-specific patient tools

(D'Amico et al., 2023).

Opinion Leadership & Influencer Strategy

India has strong **clinical hierarchy dynamics**—junior doctors emulate senior consultants. Mobilizing respected **Key Opinion Leaders (KOLs)** is critical.

Tactics:

- Facilitate real-world studies with top centers (e.g., AIIMS, TMH)
- Publish Indian success cases in peer journals
- Host peer panels at national conferences (e.g., ISCR, ICON)

Also empower **clinical pharmacists** to:

- Lead in-hospital biosimilar workshops
- Standardize switching protocols
- Guide procurement with therapeutic equivalence data

"Pharmacists should not just dispense, but educate," – *Clinical pharmacist, Hyderabad*

(Barbier et al., 2020), (Jarrett & Dingermann, 2015).

Patient Communication Toolkit

Doctors need **visual, bilingual, low-literacy materials** to build patient trust.

Toolkit Elements:

- **One-pager FAQ** (What is a biosimilar? Why is it safe?)
- **Infographic** (Comparison of originator vs biosimilar)
- **Doctor dialogue script** (In Hindi, Marathi, Bengali)
- **Patient testimonials** (Video clips from treated patients)

These must be co-branded with **hospital logos** for credibility, not just pharma logos.

(Gasteiger et al., 2020). (Gasteiger et al., 2020).

Conclusion

In this dissertation, I investigated why biosimilars are not used widely in India's specialty care sector and designed a plan to encourage their use. There is a big difference between how many biosimilars are produced by India and how often they are written into patient prescriptions, according to researchers. Key results suggest that confidence in biosimilar efficacy and safety is weak among healthcare professionals, few are aware of the relevant regulations, minimal training is provided about switching and poor communication with patients exists. The difficulties here mainly have to do with people's behaviour and judgments, not scientific or technical barriers. Such information follows a need for communication that is targeted, believable and fits the situation it addresses. As a result, the study introduces a six-pillar Integrated Marketing Communication (IMC) framework that fits with the requirements of Indian healthcare professionals. Within this framework, personal messaging for each segment, sharing education by peers, support resources in various languages and use of digital and other communication channels are highlighted. It also shows that getting key opinion leaders and pharmacists on board is necessary for the introduction of biosimilars. To boost biosimilar use in India, things other than policy and prices must be looked at. This means relying on human-centred discussions that respond to the emotions, culture and systems affecting medical decisions. When the right methods are in place, biosimilars can move from being forgotten choices to trusted, popular therapies in India's healthcare system.

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