

A CROSS-SECTIONAL SURVEY ON PHARMACEUTICAL MARKETING STRATEGIES AND THEIR INFLUENCE ON PRESCRIBING BEHAVIOR AND CONSUMER PERCEPTION

Mayuri Bapu Chavan^{1*}, Rupesh Thite¹, Ritij Ayare¹, Apoorva Ranade¹, Meera Deshmukh¹,
Pranati Tilak¹

¹TMV's Lokmanya Tilak Institute of Pharmaceutical Sciences, Pune, Maharashtra, India

Corresponding author:

Name: Mayuri Bapu Chavan

Address: TMV's Lokmanya Tilak Institute of Pharmaceutical Sciences, Pune

Received: Feb 10, 2026

Accepted: Mar 01, 2026

Published: Mar 04, 2026

ABSTRACT

Background: Pharmaceutical marketing is crucial in shaping prescribing behavior and consumer perceptions. The shift to digital platforms has transformed traditional marketing into integrated digital engagement models, necessitating an understanding of stakeholder perceptions for ethical and effective promotion.

Objective: The present study aimed to evaluate the marketing strategies adopted for pharmaceutical products and to assess their influence on prescription behavior, product utilization, and consumer perception, with particular emphasis on digital transformation and preventive healthcare orientation.

Methodology: In the Pune area of Maharashtra, India, an observational cross-sectional survey was carried out. After a thorough assessment of the literature, a structured questionnaire was created and sent electronically using Google Forms. A total of 109 valid replies were gathered from customers who were at least 21 years old, professionals in the pharmaceutical sector, and healthcare experts. Descriptive statistical techniques were used to assess the data.

Results: The majority of respondents (82.6%) were aged 18–24 years, and 58.9% were healthcare professionals. Online sources (64.2%) and medical professionals (63.3%) were the primary channels for learning about new pharmaceutical products. Nearly half of the respondents (50.5%) preferred a combination of traditional and digital marketing strategies, while 45.9% favoured digital marketing alone. A substantial proportion (86%) acknowledged that marketing influenced their product utilization decisions. Furthermore, 48.6% supported a balanced approach between educational and promotional strategies, and over 96% emphasized prioritizing preventive healthcare awareness.

Conclusion: The findings indicate a strong shift toward digital and integrated pharmaceutical marketing strategies. Stakeholders expect marketing practices to be ethically responsible, educationally focused, and aligned with preventive healthcare objectives.

Keywords: *Digital Marketing, Traditional Marketing, Promotional strategies, Prescribing Behavior, Consumer Perception*

Introduction

The pharmaceutical industry is essential to public health by providing, making accessible, and driving innovation in medicines. Nevertheless, aside from drug discovery and development, promotion also plays a key role in the distribution, adoption, and use of pharmaceutical products[1]. Pharmaceutical marketing practices include an array of promotional strategies such as medical representative visits, digital advertising, sponsored educational programs, and free samples, which have the highest penetration among physicians; whereas traditional forms of media, such as TV or radio, are being overtaken by online media, including social media, which is just being explored for its acceptability by doctors[2]. Over time, when we look at the pharmaceutical selling and marketing scenario, lots of transformation has taken place due to digitalization, increased internet penetration, changing customer consciousness, and a stricter regulatory environment[3]. Traditional marketing strategies, including print media, television advertising, and in-person detailing, are being increasingly supplemented or replaced by digital marketing tactics, influencer endorsements, and online health information-seeking[4]. This shift is an indication of the changing information-seeking behaviour from both healthcare professionals and consumers[5]. While effective marketing may enhance awareness of and access to the drug, it also raises ethical questions in relation to transparency, rational use of drugs, and the balance between commercial interests and public health needs[6]. The rising importance of preventive health and promotion, patient education, and evidence-based communication is generating the need for responsible marketing in the pharmaceutical industry[7].

In India, a highly diversified and rapidly changing health care delivery scenario warrants that the perception of pharmaceutical marketing among prescribers and consumers is clearly understood[8]. Understanding preferred information sources, the perceived effectiveness of marketing tactics, and the ethical standards of key stakeholders may help organizations to adopt a more balanced, open, and ethical approach to promoting themselves[9].

Therefore, the present study was conducted as an observational cross-sectional survey to evaluate the marketing strategies used for pharmaceutical products and to assess their influence on prescribing behavior, product utilization, consumer perception, and expectations regarding ethical and preventive healthcare-oriented promotion. The study aims to provide empirical evidence on how pharmaceutical marketing is perceived in the current digital era and to identify the direction in which future marketing strategies should evolve.

Methodology

Study Design

An observational, cross-sectional survey was conducted to understand the marketing strategies for pharmaceutical drugs and their effects on prescription behavior, drug preference, and consumer perception. The study used a cross-sectional and structured questionnaire to collect quantitative data. The survey was conducted in the selected Pune region of Maharashtra, India, over a period of. Data were collected from healthcare professionals, retailers, and/or consumers associated with pharmaceutical product utilization and distribution.

Research Study Population

The respondents were medical representatives, doctors, pharmacists, and other health professionals with a connection to pharmaceutical product promotion, prescription, and

dispensing. All respondents of any gender who were 21 years of age or older were eligible to participate in the survey. A total of 109 responses were obtained over the course of the study. Respondents were not forced to participate and gave their informed consent before the interview. Responses that were meant to act as placeholders were discarded for the final analysis.

Procedure

A structured questionnaire tailored to the objectives of the survey provided the core data for analysis. The survey was developed following a comprehensive literature review of pharmaceutical drug marketing strategies, promotional techniques, and effects on prescribing and dispensing patterns. The preliminary questionnaire was examined for clarity, relevance, and comprehensiveness. Final posting was preceded by essential revision. The final questionnaire was created via Google Forms for easy dissemination and response. The questionnaire was structured into sections. Section one included age, gender, status of the profession, years of experience, and area of practice[10]. Awareness of and exposure to pharmaceutical promotion in the second part included medical visits, free samples, gifts and promotional items, sponsorship of events such as conferences and Continuing Medical Education(CME) programs, among others, advertisements, as well as digital marketing. The third part examined the perceived influence of these types of marketing activities on physician prescribing, brand preference, product recommendation, and dispensing. The last part consisted of items about ethical impression and attitude about drug promotional activities.

The aim of the study was clearly stated, and informed consent was obtained before participation. The link to the survey was distributed by electronic means, and respondents were offered enough time to return it duly. The anonymity and confidentiality of all the participants were strictly protected throughout the entire process.

RESULTS AND DISCUSSION

1. Demographic Characteristics of Respondents

1.1 Age Distribution

In total, 109 participants completed the question on age. Respondents were sub-grouped into five age categories: 18–24 years, 25–34 years, 35–44 years, 45–54 year and ≥ 55 years. Most of the sample was aged between 18 and 24 years, 82.6% ($n = 90$). The next highest age group was 25–34 years, accounting for 13.8% ($n = 15$) of participants. Only a low percentage of respondents were from the age group 35–44 years (about 2–3%, $n \approx 3$) and 45–54 (approximately 1%, $n \approx 1$). Responses in respondents 55 years of age and older were limited or non-existent (Figure 1).

What is your age group?

109 responses

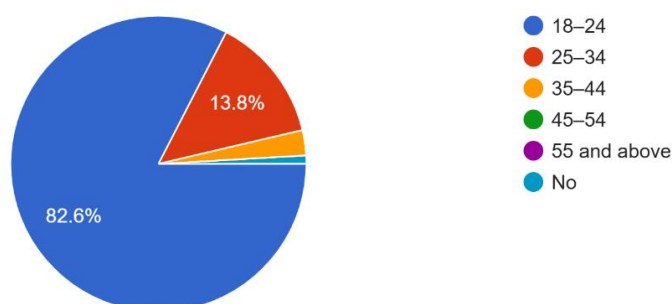


Figure 1. Age Demographics

The results of the data showed that the majority of participants were youth aged 18–24 years. This age bias also indicates that the findings of this study mainly represent the thoughts, consciousness, and attitudes of a younger group. Youth in general are more active on digital media and social networking sites, something that could affect the level of exposure they receive and their perception of pharmaceutical promotions. The under-representation of older ages may limit the generalization of the results for all age strata.

1.2 Background of Respondents

A total of 107 responses were recorded for the professional background question. The respondents were categorized into healthcare professionals, pharmaceutical industry professionals, general public/academic consumers, other professions, and media professionals. Among the respondents, 58.9% ($n = 63$) were Healthcare Professionals (Doctors, Pharmacists, Nurses), 14% ($n = 15$) were Pharmaceutical Industry Professionals (Marketing, Sales, R&D), 11.2% ($n = 12$) belonged to the General Public/Academic Consumer category, 15% ($n = 16$) selected “Other” professions. Representation from Television/Radio professionals was negligible. As can be seen in the results, at least half of the respondents were healthcare workers. This is an important advantage of our research because health professionals are the main target for pharmaceutical marketing. They are directly subjected to marketing tactics like detailing, digital promotions, sponsored education programmes, and advertising. Their involvement adds to the trustworthiness and professional applicability of results. Responses are also integrated with pharmaceutical industry people (14%) who are the leads of marketing strategies for new medicinal products. Conversely, the feedback from the general public and other professions gives a consumer-centric point of view, for an overall analysis of marketing influence (Figure 2).

What is your profession?

107 responses

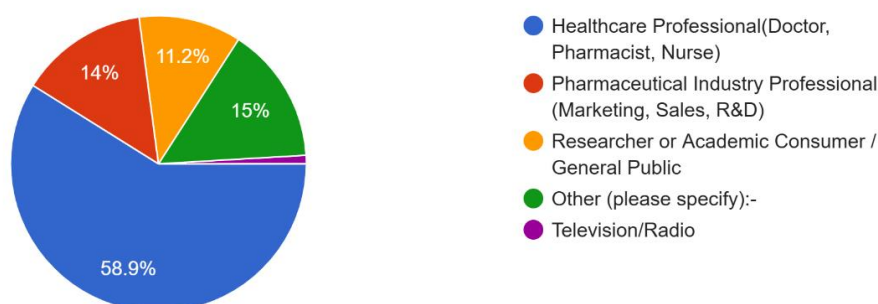


Figure 2. Background Of Respondent's

1.3 Marketing Channels for Learning About New Pharmaceutical Products

A total of **109 respondents** answered the question:

"How do you typically learn about new pharmaceutical products? (Select all that apply)." .

Since multiple options were allowed, the percentages represent the proportion of respondents selecting each source.

How do you typically learn about new pharmaceutical products? Select all that apply

109 responses

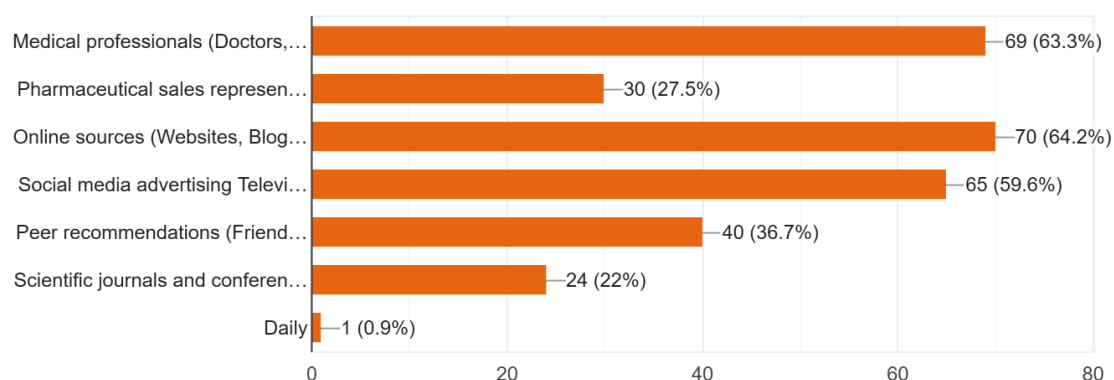


Figure 3. Marketing Channels for Learning About New Pharmaceutical Products

Findings show that online sources (64.2%) were the most used source of information, followed by visits to health care professionals (63.3%). Social media advertising played a significant role in promoting pharmaceutical goods (59.6%). Interestingly, traditional pharmaceutical representatives were reported by only 27.5% of respondents, suggesting a noticeable decline in reliance on in-person detailing compared to digital platforms. Less accessed were scientific journals and conferences (22%), which might be reflecting the fact that participants in this

study are a relatively young population. The findings obviously represent an awareness turnover in the pharmaceutical product marketing. The Internet (64.2%) and social media (59.6%) were some of the top sources of information. This suggests that new digital media and internet exposure, particularly among young adults, have increased. Physicians (63.3%) continue to be considered among the most trustworthy sources of information on medications. This is an indication that, for all the power of digital transformation, healthcare professionals still clearly influence how pharmaceutical products are perceived. In addition, the lower value for personal visits from pharmaceutical representatives (27.5%) may indicate that face-to-face detailing is less relevant compared with digital models of interaction.

1.4 Perceived Effectiveness of Marketing Strategies

Respondents were asked:

"In your opinion, which of the following marketing strategies works best for promoting pharmaceutical products?"

A total of 109 responses were recorded. The fact that 50.5% of respondents want to see a mix of traditional and digital marketing shows the significance of a seamless omnichannel approach. Digital channels offer speed and reach, but then, traditional media may also lend themselves to credibility and trust building. The high rating of digital marketing (45.9%) is consistent with the demographic information, that most respondents are in the 18–24 age category. This demographic is particularly susceptible to online adverts, influencer marketing, and digital campaigns. The minimal reliance on traditional marketing alone indicates that pharmaceutical companies may need to prioritize digital transformation while maintaining traditional channels for reinforcement (Figure 4).

In your opinion, which of the following marketing strategies works best for promoting pharmaceutical products?

109 responses

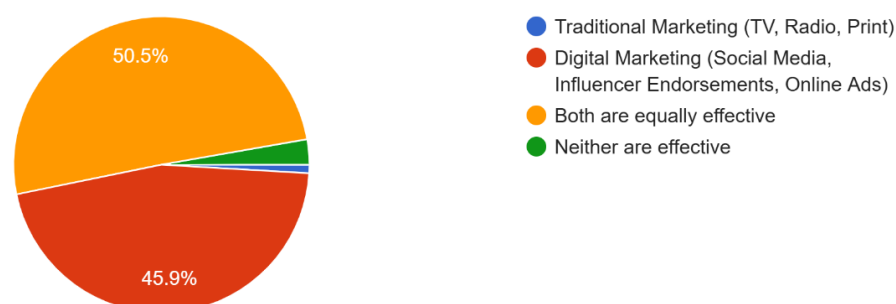


Figure 4. Perceived Effectiveness of Marketing Strategies

1.5 Preference for Conventional vs Modern Sources of Knowledge

A total of 108 respondents answered the question:

"Which do you prefer: conventional or modern sources for knowledge about medicinal products?" The findings demonstrate that nearly one-half of the subjects (48.1%) have selected contemporary sources, such as online sources and social media sites, for seeking information on medicinal products. Almost half (47.2%) said that they like both traditional and modern equally. Very few used only traditional sources like TV, newspapers, or print. This distribution highlights a strong inclination toward digital information platforms, while still acknowledging the complementary role of conventional media.

Which do you prefer: conventional or modern sources for knowledge about medicinal products?

108 responses

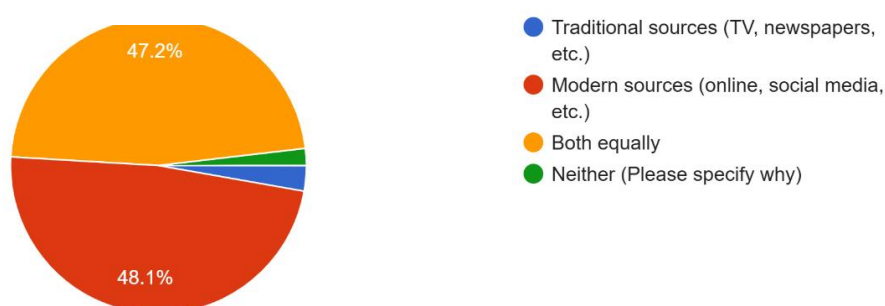


Figure 5. Preference for Conventional vs Modern Sources of Knowledge

1.6 Marketing Strategy Providing Greater Assurance

A total of 109 respondents answered the question: "Which marketing strategy, in your opinion, gives you greater assurance about a pharmaceutical product?" Most respondents (41.3%) believed that digital advertising offered more confidence in pharmaceutical products. A few were uncertain: a substantial one-third (38.5%) felt that they had the same level of trust in traditional and digital marketing tactics. Only 11% relied primarily on traditional advertising for assurance, while 9.2% felt that neither strategy contributed significantly to their confidence.

Which marketing strategy, in your opinion, gives you greater assurance about a pharmaceutical product?

109 responses

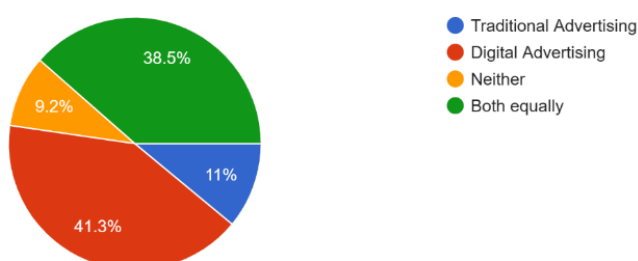


Figure 6 Marketing Strategy Providing Greater Assurance

1.7 Influence of Marketing on Product Utilization

A total of 108 respondents answered the question: *"Have you chosen to buy or utilize any product because of its marketing or promotion?"* Data showed that at least 50.9 per cent of respondents admitted to being influenced by advertising before deciding whether to buy or use a pharmaceutical product. Another 35.2% reported partial influence. A minority (13.9%) said marketing made no difference to what they purchased. In general, 86% of participants were influenced to some extent by a high level of behavior-based influence from a pharmaceutical promotional event (Figure 7). The findings illustrate the significant impact of pharmaceutical marketing on healthcare decisions, underscoring ethical responsibilities for companies to ensure promotional content is evidence-based and regulatory compliant. While a minority relies on physician recommendations, the data confirms that marketing strategies actively shape consumer behavior.

Have you chosen to buy or utilize any product because of its marketing or promotion?
108 responses

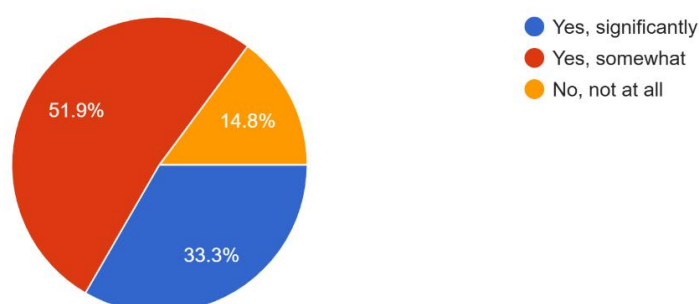


Figure 7 Impact of marketing

1.8 Educational Focus versus Promotional Incentives

A total of 109 respondents answered the question: *"Should pharmaceutical marketing focus more on education or promotional incentives?"* Nearly half of the participants (48.6%) favored a mix of education and promotion approach. A large minority (38.7%) thought educational benefits should be weighted to a greater extent. A mere 12.8% desired more ads and promotions. The preference for educational resources over promotional rewards is indicative of a shift in expectations regarding ethical marketing behavior. Respondents acknowledge that promotion is a fundamental aspect of the pharmaceutical industry; still, there is a thirst for information-based communication (Figure 8). While respondents recognize that promotional activities are integral to pharmaceutical business models, there is a clear demand for knowledge-driven communication. The dominance of the "balanced approach" response indicates that stakeholders understand the commercial nature of pharmaceutical marketing but expect it to be ethically aligned with patient education and health literacy improvement.

Should pharmaceutical marketing focus more on education or promotional incentives?

107 responses

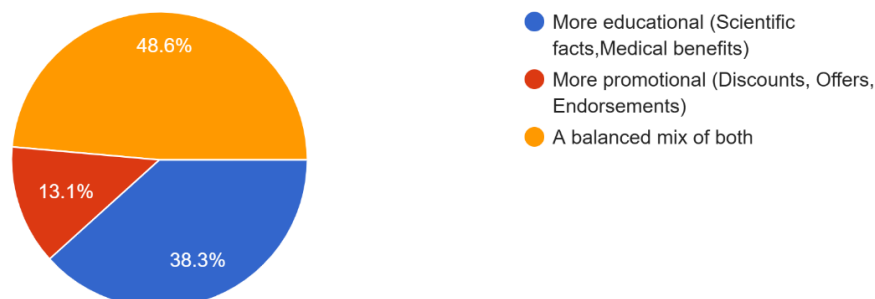


Figure 8. Promotional strategies

1.9 Prioritization of Preventive Healthcare Awareness

A total of 108 respondents answered the question: "Should pharmaceutical companies prioritize preventive healthcare awareness over product promotion?" "An overwhelming majority (over 96%) supported prioritizing preventive healthcare awareness either fully or in combination with product promotion (Figure 9). The strong endorsement for preventive healthcare prioritization reflects a broader societal expectation for corporate social responsibility within the pharmaceutical industry. Modern healthcare systems increasingly emphasize disease prevention, early diagnosis, vaccination awareness, and lifestyle modification[11]. Respondents appear to expect pharmaceutical companies to move beyond purely sales-oriented promotion and contribute meaningfully to public health awareness. This finding suggests that companies investing in preventive campaigns such as awareness drives for chronic diseases, vaccination programs, or lifestyle management may enhance both public trust and brand credibility. The minimal opposition to preventive prioritization indicates that stakeholders perceive healthcare promotion as a social obligation rather than merely a commercial activity.

Should pharmaceutical companies prioritize preventive healthcare awareness over product promotion?

108 responses

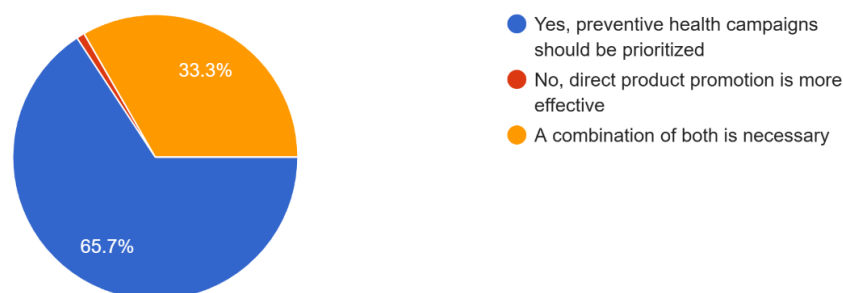


Figure 9 Prioritization of Preventive Healthcare Awareness

Conclusion

According to the survey, pharmaceutical marketing is significantly moving toward digital engagement and integrated promotional techniques, with a focus on social media and online platforms for product information. Conventional approaches continue to help foster trust. Decisions about how to use products are heavily influenced by marketing, underscoring the moral obligation of businesses to uphold truthfulness and openness. Growing expectations for corporate social responsibility are reflected in respondents' preference for educational marketing that emphasizes preventive healthcare. In order to meet the health demands of society, plans should focus on ethical compliance and public health promotion while integrating digital innovation with traditional credibility. Overall, the results suggest that future pharmaceutical marketing strategies should adopt an integrated omnichannel approach that combines digital innovation with traditional credibility.

References

- [1] Akena C, Ssemanda M, Hamed A, Abdelaziz S, Munanura I. Pharmaceutical Drug Promotion and Rational Drug Use: Assessment of Healthcare Workers Perspective. *Integr Pharm Res Pract* 2024;13:127–38. <https://doi.org/10.2147/ijrp.s466004>.
- [2] Acharya A, Hamid ABA. A Review on Pharmaceutical Marketing Strategies from Medical Representatives in Doctors' Prescribing Decisions. *International Journal of Research and Innovation in Social Science* 2025;VIII:1189–99. <https://doi.org/10.47772/ijriss.2024.8120099>.
- [3] Hole G, Hole AS, McFalone-Shaw I. Digitalization in pharmaceutical industry: What to focus on under the digital implementation process? *Int J Pharm X* 2021;3:100095. <https://doi.org/10.1016/j.ijpx.2021.100095>.
- [4] Gobbilla U, Kiran DS. A Comparative Analysis of Traditional and Digital Marketing Strategies in Era of E-Commerce. *International Journal of Engineering, Business and Management* 2025;9:1–19. <https://doi.org/10.22161/ijebm.9.3.1>.
- [5] Di Novi C, Kovacic M, Orso CE. Online health information seeking behavior, healthcare access, and health status during exceptional times. *J Econ Behav Organ* 2024;220:675–90. <https://doi.org/10.1016/j.jebo.2024.02.032>.
- [6] Jacob NT. Drug promotion practices: A review. *Br J Clin Pharmacol* 2018;84:1659. <https://doi.org/10.1111/bcp.13513>.
- [7] Mor J, Kaur T, Menkes DB, Peter E, Grundy Q. Pharmaceutical industry promotional activities on social media: a scoping review. *Journal of Pharmaceutical Health Services Research* 2024;15. <https://doi.org/10.1093/jphsr/rmae022>.
- [8] Festa G, Kolte A, Carli MR, Rossi M. Envisioning the challenges of the pharmaceutical sector in the Indian health-care industry: a scenario analysis. *Journal of Business & Industrial Marketing* 2021;37:1662–74. <https://doi.org/10.1108/JBIM-07-2020-0365>.

- [9] Tanveer M, Ahmad AR, Mahmood H, Haq IU. Role of Ethical Marketing in Driving Consumer Brand Relationships and Brand Loyalty: A Sustainable Marketing Approach. *Sustainability* 2021, Vol 13, 2021;13. <https://doi.org/10.3390/su13126839>.
- [10] MacFadyen L, Hastings G, MacKintosh AM. Cross sectional study of young people's awareness of and involvement with tobacco marketing. *BMJ* 2001;322:513–7. <https://doi.org/10.1136/bmj.322.7285.513>.
- [11] Caron RM, Noel K, Reed RN, Sibel J, Smith HJ. Health Promotion, Health Protection, and Disease Prevention: Challenges and Opportunities in a Dynamic Landscape. *AJPM Focus* 2023;3:100167. <https://doi.org/10.1016/j.focus.2023.100167>.