

# Influence of Promotional Channels on Consumer Purchasing Behavior for OTC Medical Devices

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Publication Date: 2025/12/10

**Abstract:** Over-the-counter (OTC) medical devices, including thermometers, glucometers, and blood pressure monitors, play a growing role in personal healthcare as consumers increasingly manage their health from home. This study investigates how various promotional channels—ranging from digital ads and influencer content to doctor recommendations and peer suggestions—shape consumer awareness, trust, and purchasing behaviour regarding OTC medical devices. Drawing on responses from 125 participants aged 18–50, the research reveals that healthcare professionals remain the most trusted source of influence, even amid the rising use of online platforms. Although online search behaviour is high, direct purchases influenced by digital advertisements or influencer reviews are relatively low. Statistical analyses further indicate that factors such as age impact awareness and trust in digital promotions, while education level has minimal effect. The findings underscore the pivotal role of professional guidance and trust in driving consumer choices, suggesting that even in a digital age, traditional authority figures retain significant sway in healthcare decisions.

**Keywords:** *Over-The-Counter (OTC) Medical Devices, Consumer Behaviour, Promotional Channels, Trust, Doctor Recommendations, Digital Advertisement, Purchasing Decisions.*

**How to Cite:** Dr. Mahadevaswamy R. M.; Rakesh Gaikwad; Sankarsh H. S.; Samarth Kulkarni; Rakshath Naik; Spoorthi Ichangi; Shreya Sambrani; N. Ramya; Guru Prasad L.; Pavan Tukaram Shindhe (2025) Influence of Promotional Channels on Consumer Purchasing Behavior for OTC Medical Devices. *International Journal of Innovative Science and Research Technology*, 10(12), 195-202. <https://doi.org/10.38124/ijisrt/25dec145>

## I. INTRODUCTION

Over the counter (OTC) medical devices—such as thermometers, blood pressure monitors, pregnancy test kits, glucometers, and oximeters - have become essential tools in modern personal healthcare. These devices, available without a prescription, empower individuals to monitor their health conditions conveniently from home. The growing trend of self-monitoring and the increasing emphasis on home-based healthcare have been driven by factors such as rising health awareness, technological advancements, and the need to reduce the burden on clinical facilities. In this context, promotional channels play a critical role in influencing consumer decisions regarding OTC medical devices. Online advertising through platforms like YouTube, Google, and social media, along with the recommendations of doctors, pharmacists, friends, and family members, significantly shape consumer perceptions and choices. In-store displays, attractive packaging, and user reviews, further aid in decision-making. Central to the acceptance and continued use

of these devices are consumer awareness and trust—two key elements that determine not only initial purchase but also long-term reliance on self-monitoring tools. This study explores how various promotional channels impact consumer behavior in purchasing OTC medical devices, emphasizing the role of trust and information in shaping healthcare decisions.

### ➤ Objectives

The primary objective of the study is to assess awareness levels of OTC medical devices among the public and secondary objective is to identify the promotion method (digital, doctor, peer, retail) which would be the most effective method in influencing purchases.

## II. REVIEW OF LITERATURE

Atmaja (2024)<sup>1</sup>, this article explores key factors influencing consumer decisions to purchase personal medical devices. Drawing from consumer behaviour theory, the study

emphasizes how product quality, price perception, advertising, and distribution channels shape purchasing behaviour. Product quality measured through features like durability and performance significantly impacts buying choices. Similarly, price perception plays a crucial role; consumers assess the value for money and product affordability, making it the most dominant factor. Advertising, particularly clear and trustworthy messaging, also significantly influences consumer trust and intent to purchase. However, distribution channels were found to have no significant effect, suggesting availability alone does not drive decisions. The findings highlight that strategic pricing and persuasive advertising are essential for marketers in the personal medical device industry to enhance consumer engagement and sales. The study contributes to marketing literature by aligning consumer behaviour theories with practical factors affecting health-related purchasing decisions. Mary Linda S (2021)<sup>2</sup>, this research examines awareness, usage, and determinants of home-use medical device buying behaviour. Medical devices such as BP machines and Glucometers are the most commonly used self-monitoring home-use devices that can be purchased online or over the counter. Most companies are selling the devices these days in India, and a patient might opt to purchase and use a device following Dr's recommendation, price, quality, and numerous other factors. A total of 188 outpatients (93 diabetic and 98 Hypertension participants) registered for the study and visited a chosen hospital in Bangalore. The research identifies that 62% of the people are familiar with the device although the usage of the device in both groups is significantly different. 73% of the Diabetic patients utilize a Glucometer, and only 42% of the hypertensive patients utilize the home use BP device. The average frequency of use of the device is 8 to 9 times a month. Prices and Advertisements are the major reasons that affect the purchasing decision of patients. Garima Saini (2022)<sup>3</sup>, studied sizeable growth for the Indian medical devices sector would be fuelled by the present low rate of per-person medical device expenditure. The development in the medical devices sector in India poses competition law concerns (anti-trust) and thus public trust during COVID-19 in home-use medical devices will be just as critical. The review article is dedicated to making people aware of the medical devices used commonly by people during the COVID-19 pandemic and to assess people's faith in home usable medical devices in India. In the case of a global pandemic, medical device manufacturers are subjected to lack of storage space and the inability to cater to the health centre's needs. The demand for some of the most important medical devices has grown, and it is getting tough for the medical device sector to meet demand with quality products because the quality of COVID-19 products plays an integral role in the current situation. In spite of the challenge of meeting sufficient medical equipment in a pandemic, they are attempting to comply with the situation. Following the identification of necessity to drive awareness and understand the selling, and production, handling of medical instruments in COVID-19 at home, a study was carried out. Moreover, medical devices manufacturers and distributors also view this situation as a way to make more profit. This review article would facilitate researchers in COVID-19 to gain more knowledge and extensive belief among medical technologies

respectively. Narjes Alarsali and Iman Aghaei (2022)<sup>4</sup>, this study shows that growing popularity of Over-The-Counter (OTC) medications has led pharmaceutical companies to adopt digital marketing strategies to influence consumer choices. Studies highlight the importance of digital platforms in shaping awareness and purchase behaviour, prompting companies to revise their marketing approaches. An empirical study conducted in North Cyprus evaluated the impact of pharmaceutical digital marketing, reference groups, and brand experience on OTC purchase decisions. Data from 158 pharmacy consumers, analyzed using SPSS, revealed that consumers are generally aware of OTC use for common ailments. Digital marketing, along with influence from peer groups and brand familiarity, significantly shaped their purchasing decisions. The findings support previous literature emphasizing the role of awareness and education in responsible self-medication. The study suggests that pharmaceutical companies, governments, and health stakeholders must enhance digital outreach to promote safe and informed use of OTC products, reinforcing the value of consumer-focused marketing strategies in the pharmaceutical sector. A Bind (2025)<sup>5</sup>, explores that Over-the Counter (OTC) product marketing has increasingly trended towards online platforms, leveraging creative and cost-effective strategies to reach a broad consumer base. This paper explores the most effective online marketing tactics suitable for the application with OTC products, including social media marketing, influencer collaborations, search engine optimization (SEO), pay-per-click (PPC) advertising, email marketing, and content-driven campaigns. It also examines the importance of regulatory compliance, trust building, and consumer literacy in online advertising of OTC products. Informed by the analysis of trends and case studies, the research sheds light on how digital media drive brand visibility, consumer engagement, and sales conversions and address concerns such as misinformation and ethical advertising. The findings attempt to assist marketers in developing balanced, efficient, and compliant online marketing plans for OTC products. Gorti Srinivas Dutt (2025)<sup>6</sup>, this study centered on the role of pharmaceutical digital marketing in affecting the purchase choice of consumers in the case of Over-The-Counter (OTC) drugs. The research carried out an online survey with the use of a self-administered questionnaire to evaluate the effect of pharmaceutical digital marketing, reference groups, and brand experience in influencing the consumer choice when buying OTC drugs. The survey gathered primary data from 158 pharmacy consumers from the Hyderabad Telangana area. Data collected was analyzed through the IBM SPSS programme. Findings in the study revealed that Hyderabad consumers are aware of the use of OTC drugs for day-to-day illnesses. The study also implied that pharmaceutical industries, the government, and other stakeholders in health have a responsibility to advance consumer education and awareness on the proper and safe utilization of OTC drugs, especially through the digital platform. Ross Taylor Thomson (2017)<sup>7</sup>, increase in life expectancy, coupled with the prevalence of chronic diseases, have resulted in an increase in the adoption of medical devices used to monitor and manage ailments at home. So far, though, little thought has been given to examining the effects such devices have on the home setting, the device's users, and their partners. This thesis

reports three studies exploring the physical, personal and social problems of individuals using home medical devices. The first study used qualitative interviews with 12 users and seven partners and explored their experiences with home use medical devices. Interpretation thematically, the research explained how medical devices have the ability to promote or undermine individuals' experience of the home environment's physical, personal and sociality when medical devices are installed in their homes. In study two, a questionnaire was constructed to explore healthcare professionals' and patients' attitudes concerning the relative significance of various medical device features. Various groups of healthcare personnel involved in the delivery of medical devices were incorporated along with medical device users and non-users. The findings revealed that pragmatic factors are considered more significant by professional groups compared to factors that are concerned with the home environment. This reflects an absence of a whole person approach to patient care as well as to the choice of home medical devices. The purpose of this study was to find out how couples learn the process of being prescribed a medical device to be used at home in the long term. The interviews revealed that receiving an oxygen concentrator can be the cause of an acute bout of uncertainty for certain couples and that coping was mediated by expectations that they held before receiving the machine. This study has given an important insight into the little-understood influence that medical technology has on individuals' experience of the home environment. Rahul Lad (2024)<sup>8</sup>, this study shows that the right to enjoy the highest possible level of health is a fundamental right for all human beings without distinction based on race, religion, political opinion, economic or social condition" (WHO). After the COVID 19 pandemic Indian consumers are spending more on health and immunity. This has brought about consumption of natural foods, health supplements, specialty diets (EY report Feb 2022). Over-the-counter (OTC) items are proving to be more attractive to the customer looking for convenient treatment for everyday ailments. The pharmaceutical industry is adapting to more modern demands, such as self-treatment, as the role of the chemist becomes more patient- and advisory-focused. Customers do have some flexibility to become more involved in their own health as a result of this strategy. Patients are able to self-diagnose their conditions by themselves and select the appropriate prescription from the pharmacy to treat their symptoms. The availability of over the counter (OTC) drug is very important in enabling patients to self-treat. Most of the drugs that are dispensed over the counter (OTC) today were previously prescription drugs. Pharmaceutical Companies can analyze what motivates patients to choose pharmaceutical products for specific therapeutic segments and capitalize on this opportunity to create extra sales from the OTC. This will also help improve lifecycle of mature prescription brands.

Over-the-Counter (OTC) medical devices have become an essential part of modern healthcare, especially with the rise in self-care, chronic disease management, and post-pandemic health consciousness. These devices—such as digital thermometers, blood pressure monitors, glucometers, and oximeters—allow individuals to monitor their health from the comfort of their homes without requiring a physician's prescription or constant supervision.

#### ➤ Background

Traditionally, the promotion of healthcare products relied heavily on doctor-centric strategies, where doctors and pharmacists influence patient decisions. However, with the rapid growth of digital platforms, social media, influencer marketing, and e-commerce, patients today are increasingly exposed to patient-centric promotion - advertising that directly targets consumers through online ads, social content, and peer recommendations.

This shift in promotion strategy has led to a new dynamic in consumer behavior, where awareness, trust, and purchase decisions are shaped not just by professional advice but by what consumers see and hear from various sources like Google ads, YouTube reviews, or even relatives and friends. While several studies have explored pharmaceutical promotion and consumer psychology, limited research specifically focuses on which promotional channels most influence the purchase of OTC medical devices, and how awareness levels and trust vary across these sources. This study aims to fill that gap by assessing how different promotional methods—doctor advice, online advertisements, influencer content, peer suggestions, and packaging—impact the awareness, trust, and buying behavior of consumers toward OTC medical devices.

### III. RESEARCH METHODOLOGY

This is an explorative research and it adopted structured quantitative survey approach to investigate the influence of promotional channels on consumer behavior toward over the counter (OTC) medical devices. The target population includes members of the public aged between 18 and 50 years, who are likely users of or potential buyers of such devices. The study adopted convenient sample techniques, and a sample size of 125 respondents was selected to ensure diverse representation within this age group. The primary data is collected through a structured questionnaire, which was circulated online. The collected data was analyzed by using IBM SPSS software to identify patterns and relationships between promotional exposure and consumer purchasing decisions.

#### ➤ Data Analysis

Table 1 Demographic Frequency Table

| 1. Age Group |           | Below 18 Years | 18 Years to 25 Years | 26 Years to 35 years | 36Years to 50 years | Total |
|--------------|-----------|----------------|----------------------|----------------------|---------------------|-------|
|              | Frequency | 48             | 23                   | 39                   | 15                  | 125   |
|              | Percent   | 38.4           | 18.4                 | 31.2                 | 12                  | 100.0 |
| 2. Gender    |           | Male           | Female               | Total                |                     |       |
|              | Frequency | 53             | 72                   | 125                  |                     |       |

|                    |           |             |               |              |       |       |
|--------------------|-----------|-------------|---------------|--------------|-------|-------|
|                    | Percent   | 42.4        | 57.6          | 100.0        |       |       |
| 3. Education Level |           | High School | Undergraduate | Postgraduate | Other | Total |
|                    | Frequency | 6           | 43            | 70           | 6     | 125   |
|                    | Percent   | 4.8         | 34.4          | 56           | 4.8   | 100   |

(Source: Primary Data)

Table 1, presents the demographic frequency of the characteristics of 125 respondents based on age, gender, and education level. The majority of the respondents (38.4%) fall under the age group of below 18 years, indicating a younger participant base. This is followed by 31.2% in the age group of 26 to 35 years, 18.4% between 18 to 25 years, and only 12% in the 36 to 50 years category. In terms of gender, female respondents constitute a larger share at 57.6%, while male

respondents account for 42.4%, showing a higher female participation in the study. Regarding educational qualifications, more than half of the respondents (56%) have completed postgraduate studies reflecting a well-educated respondent group, followed by 34.4% who are undergraduates. A small proportion, 4.8%, have completed only high school education, and another 4.8% belong to other education categories.

Table 2 Frequency Table of Impact and Awareness of Promotional Channels

|  |           |                       |                 |                                |                      |                         |                    |       |
|--|-----------|-----------------------|-----------------|--------------------------------|----------------------|-------------------------|--------------------|-------|
| 4. Which of the following OTC medical devices are you aware of?                    |           | Only One              | Any Two         | Any Three                      | Any Four             | All Five                | Total              |       |
|  | Frequency | 14                    | 15              | 13                             | 23                   | 60                      | 125                |       |
|  | Percent   | 11.2                  | 12.0            | 10.4                           | 18.4                 | 48.0                    | 100.0              |       |
| 5. Have you personally used or purchased any of the above devices?                 |           | Yes                   | No              | Total                          |                      |                         |                    |       |
|  | Frequency | 99                    | 26              | 125                            |                      |                         |                    |       |
|  | Percent   | 79.2                  | 20.8            | 100.0                          |                      |                         |                    |       |
| 6. If yes, which devices have you used?  |           | Only One              | Any Two         | Any Three                      | Any Four             | All Five                | Total              |       |
|  | Frequency | 32                    | 23              | 28                             | 18                   | 7                       | 108                |       |
|  | Percent   | 29.6                  | 21.3            | 25.9                           | 16.7                 | 6.5                     | 100.0              |       |
| 7. How did you hear about these devices  |           | Doctor or Pharmacist  | Online Ads      | Social media                   | Friends or Relatives | Television or Newspaper | In store Promotion | Total |
|  | Frequency | 58                    | 11              | 12                             | 33                   | 9                       | 2                  | 125   |
|  | Percent   | 46.4                  | 8.8             | 9.6                            | 26.4                 | 7.2                     | 1.6                | 100.0 |
| 8. Which promotional channel do you trust the most?                                |           | Doctor Recommendation | Online Ads      | Peer Suggestions               | In store Display     | Influencer Media        | Total              |       |
|  | Frequency | 106                   | 4               | 12                             | 2                    | 1                       | 125                |       |
|  | Percent   | 84.8                  | 3.2             | 9.6                            | 1.6                  | 0.8                     | 100.0              |       |
| 9. Have you ever searched online (Google/YouTube) before buying a device?          |           | Yes                   | No              | Total                          |                      |                         |                    |       |
|  | Frequency | 83                    | 42              | 125                            |                      |                         |                    |       |
|  | Percent   | 66.4                  | 33.6            | 100.0                          |                      |                         |                    |       |
| 10. Have you ever bought a medical device after seeing an ad or influencer review? |           | Yes                   | No              | Total                          |                      |                         |                    |       |
|  | Frequency | 36                    | 89              | 125                            |                      |                         |                    |       |
|  | Percent   | 28.8                  | 71.2            | 100.0                          |                      |                         |                    |       |
| 11. Which factor might influence on your OTC medical device purchase?              |           | Doctor or Pharmacist  | Social media    | Friend or Relative Suggestions | Discount or offer    | Previous experience     | Total              |       |
|  | Frequency | 82                    | 5               | 15                             | 5                    | 18                      | 125                |       |
|  | Percent   | 65.6                  | 4.0             | 12.0                           | 4.0                  | 14.4                    | 100.0              |       |
| 12. Where do you prefer to buy OTC devices?  |           | Online                | Retail Pharmacy | Supermarket                    | Other                | Total                   |                    |       |

|   |           |       |            |                       |        |           |       |
|---|-----------|-------|------------|-----------------------|--------|-----------|-------|
|   | Frequency | 33    | 90         | 1                     | 1      | 125       |       |
|   | Percent   | 26.4  | 72.0       | 0.8                   | 0.8    | 100.0     |       |
| 13. Which factor matters most to you when buying a device?                            |           | Price | Brand Name | Doctor Recommendation | Review | Packaging | Total |
|   | Frequency | 10    | 22         | 72                    | 15     | 6         | 125   |
|   | Percent   | 8.0   | 17.6       | 57.6                  | 12.0   | 4.8       | 100.0 |
| 14. Rate your trust in doctor/pharmacist recommendation (1 = 2 trust, 5 = Full trust) |           | 1     | 2          | 3                     | 4      | 5         | Total |
|   | Frequency | 2     | 2          | 22                    | 48     | 51        | 125   |
|   | Percent   | 1.6   | 1.6        | 17.6                  | 38.4   | 40.8      | 100.0 |
| 15. Rate your trust in online advertisements (1 = 2 trust, 5 = Full trust)            |           | 1     | 2          | 3                     | 4      | 5         | Total |
|   | Frequency | 38    | 38         | 39                    | 5      | 5         | 125   |
|   | Percent   | 30.4  | 30.4       | 31.2                  | 4.0    | 4.0       | 100.0 |
| 16. Rate your trust in friends/relative's suggestions (1 = 2 trust, 5 = Full trust)   |           | 1     | 2          | 3                     | 4      | 5         | Total |
|   | Frequency | 5     | 17         | 48                    | 39     | 16        | 125   |
|   | Percent   | 4.0   | 13.6       | 38.4                  | 31.2   | 12.8      | 100.0 |
| 17. Rate your trust in social media influencers/reviews (1 = 2 trust, 5 = Full trust) |           | 1     | 2          | 3                     | 4      | 5         | Total |
|   | Frequency | 38    | 45         | 28                    | 9      | 5         | 125   |
|   | Percent   | 30.4  | 36.0       | 22.4                  | 7.2    | 4.0       | 100.0 |

(Source: Primary Data)

The data collected from 125 respondents provides key insights into awareness, usage, and trust regarding Over-The-Counter (OTC) medical devices and related promotional channels. Nearly half of the participants (48%) were aware of all five listed OTC devices which include thermometers, blood pressure monitors, pregnancy test kits, glucometers, and oximeters, while a smaller portion (18.4%) knew about any four, showing a high level of general awareness. Additionally, a significant 79.2% reported having personally used or purchased these devices, with most users (28%) using only one type, and 24.8% using three types, indicating moderate practical exposure.

When respondents were asked about how they came to know about these devices, 46.4% credited doctors or pharmacists, followed by 26.4% who were informed by friends or relatives. Online ads, social media, and traditional media played a minor role. Correspondingly, 84.8% of respondents trust doctor recommendations the most, far ahead of peer suggestions (9.6%) and online ads (3.2%), highlighting the dominant influence of healthcare professionals. Despite this, 66.4% have searched online before purchasing, showing that digital sources still play a supportive role in decision-making.

However, only 28.8% made purchases based on ads or influencer reviews, implying limited direct impact from such promotions. When asked what influenced their buying decisions, 65.6% cited doctor or pharmacist suggestions, while only 4% each mentioned social media and discounts, and 14.4% relied on past experience. The majority of users (72%) preferred buying OTC devices from retail pharmacies rather than online or supermarkets, underscoring trust in traditional outlets.

As for purchase priorities, 57.6% considered doctor recommendation as the most important factor, followed by brand name (17.6%) and reviews (12%). Trust ratings further reflected this trend—over 79% gave a rating of 4 or 5 to doctor/pharmacist recommendations, whereas online advertisements received very low trust, with 60.8% rating them just 1 or 2. Peer suggestions saw moderate trust, with most responses clustering around ratings 3 and 4. Social media influencers were the least trusted, with 66.4% rating them at the lowest trust levels (1 or 2). Overall, the data reveals that while awareness and usage of OTC devices are high, trust remains strongly rooted in professional medical advice, with promotional strategies like influencer marketing and online ads holding limited sway over consumer behavior.



Table 3 ANOVA Table of Age v/s Impact and Awareness of Promotional Channels

| Comparison with Age   |                | Significance Value |
|---|----------------|--------------------|
| 4. Which of the following OTC medical devices are you aware of? (Select all applicable) | Between Groups | 0.017              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 5. Have you personally used or purchased any of the above devices?                      | Between Groups | 0.002              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 6. If 1, which devices have you used?   | Between Groups | 0.001              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 7. How did you hear about these devices   | Between Groups | 0.401              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 8. Which promotional channel do you trust the most?                                     | Between Groups | 0.819              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 9. Have you ever searched online (Google/YouTube) before buying a device?               | Between Groups | 0.974              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 10. Have you ever bought a medical device after seeing an ad or influencer review?      | Between Groups | 0.041              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 11. Which factor might influence on your OTC medical device purchase?                   | Between Groups | 0.891              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 12. Where do you prefer to buy OTC devices?   | Between Groups | 0.178              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 13. Which factor matters most to you when buying a device?                              | Between Groups | 0.152              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 14. Rate your trust in doctor/pharmacist recommendation (1 = 2 trust, 5 = Full trust)   | Between Groups | 0.750              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 15. Rate your trust in online advertisements (1 = 2 trust, 5 = Full trust)              | Between Groups | 0.033              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 16. Rate your trust in friends'/relatives' suggestions (1 = 2 trust, 5 = Full trust)    | Between Groups | 0.373              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 17. Rate your trust in social media influencers/reviews (1 = 2 trust, 5 = Full trust)   | Between Groups | 0.905              |
|   | Within Groups  |                    |
|   | Total          |                    |

(Source: Primary Data)

The ANOVA table 3 presents the significance values (p-values) for the comparison between age groups and responses to various questions related to Over-The-Counter (OTC) medical devices. Here's a concise interpretation: There is a statistically significant difference across age groups for the following questions (as their p-values are less than 0.05): Q4: Awareness of OTC medical devices ( $p = 0.017$ ), Q5: Usage or purchase of devices ( $p = 0.002$ ), Q6: Types of devices used ( $p = 0.001$ ), Q10: Purchase after seeing an ad/influencer ( $p = 0.041$ ), Q15: Trust in online advertisements ( $p = 0.033$ ). These results indicate that age significantly influences awareness, usage, response to ads/influencers, and trust in online advertisements for OTC devices. For the remaining questions

(Q7, Q8, Q9, Q11–Q14, Q16, Q17), the sig values are greater than 0.05, suggesting no significant difference in responses across age groups. This means that age does not significantly affect how people heard about the devices, their preferred promotional channel, trust in various sources, or purchasing preferences for OTC devices.

This ANOVA table shows that age is a key factor in influencing awareness, usage behavior, and online ad trust, but not a major determinant in other factors like trust in doctors, preferred buying place, or influence from friends/social media.

Table 4 ANOVA Table of Education Level v/s Impact and Awareness of Promotional Channels

| Comparison with Education Level   |                | Significance Value |
|---|----------------|--------------------|
| 4. Which of the following OTC medical devices are you aware of? (Select all applicable) | Between Groups | 0.386              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 5. Have you personally used or purchased any of the above devices?                      | Between Groups | 0.579              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 6. If 1, which devices have you used?   | Between Groups | 0.322              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 7. How did you hear about these devices   | Between Groups | 0.769              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 8. Which promotional channel do you trust the most?                                     | Between Groups | 0.737              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 9. Have you ever searched online (Google/YouTube) before buying a device?               | Between Groups | 0.603              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 10. Have you ever bought a medical device after seeing an ad or influencer review?      | Between Groups | 0.631              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 11. Which factor might influence on your OTC medical device purchase?                   | Between Groups | 0.378              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 12. Where do you prefer to buy OTC devices?   | Between Groups | 0.329              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 13. Which factor matters most to you when buying a device?                              | Between Groups | 0.119              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 14. Rate your trust in doctor/pharmacist recommendation (1 = 2 trust, 5 = Full trust)   | Between Groups | 0.357              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 15. Rate your trust in online advertisements (1 = 2 trust, 5 = Full trust)              | Between Groups | 0.106              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 16. Rate your trust in friends'/relatives' suggestions (1 = 2 trust, 5 = Full trust)    | Between Groups | 0.730              |
|   | Within Groups  |                    |
|   | Total          |                    |
| 17. Rate your trust in social media influencers/reviews (1 = 2 trust, 5 = Full trust)   | Between Groups | 0.859              |
|   | Within Groups  |                    |
|   | Total          |                    |

(Source: Primary Data)

The ANOVA table 4 compares responses with education level shows the significance (p-values) for each question related to OTC medical devices. All the p-values in this table are greater than 0.05, indicating that none of the responses show statistically significant differences across different education levels. This suggests that education level does not significantly influence. So according to survey, education level has no significant impact on awareness, usage patterns, trust levels, or buying behavior regarding OTC medical devices. This implies that perceptions and behaviors toward these devices are fairly consistent across various educational backgrounds.

#### IV. CONCLUSION

The study demonstrates that while digital platforms and influencer marketing are increasingly prominent in the healthcare marketplace, their influence on consumer decisions for OTC medical devices is limited compared to traditional channels. Doctor and pharmacist recommendations dominate in trust and impact, reflecting the continued reliance on medical authority even in self-care contexts. Awareness and purchasing behavior are notably shaped by age, with younger consumers more open to online sources, yet trust still gravitates toward professional advice. The findings suggest that effective promotion strategies in

this sector must balance informative, trustworthy content with professional endorsements to resonate with consumers. As healthcare becomes more decentralized and consumer-driven, understanding these dynamics is crucial for brands and policymakers aiming to foster informed and responsible health choices.

## REFERENCES

- [1]. Atmaja, N. (2024). *Factors influencing purchase decisions of personal medical devices*. Journal of Consumer Health Studies, 12(1), 34–47.
- [2]. Linda, M. S. (2021). *Awareness, usage, and determinants of home-use medical device buying behaviour*. Indian Journal of Health Research, 18(2), 110–121.
- [3]. Saini, G. (2022). *Public trust and growth of the Indian medical devices sector during COVID-19*. Healthcare Policy Review, 9(3), 85–98.
- [4]. Alarsali, N., & Aghaei, I. (2022). *Digital marketing and consumer behaviour in OTC purchases: Evidence from North Cyprus*. International Journal of Pharmaceutical Marketing, 7(2), 56–70.
- [5]. Bind, A. (2025). *Online marketing strategies for OTC products: Balancing compliance and engagement*. Journal of Digital Health Promotion, 5(1), 22–36.
- [6]. Dutt, G. S. (2025). *Impact of pharmaceutical digital marketing on OTC drug purchase choices*. Indian Marketing Journal, 14(2), 67–80.
- [7]. Thomson, R. T. (2017). *The domestic impact of home medical devices: A qualitative and quantitative inquiry* [Doctoral dissertation, University of Edinburgh].
- [8]. Lad, R. (2024). *Consumer health behaviour post-COVID: The rise of OTC consumption in India*. Indian Pharmaceutical Insights, 11(1), 40–52.