

Research Article

Growth in Health Supplement Post Covid-19

Dr. Neelam Gupta¹, Dr. Swati Parab² and Dr. Hiresh Luhar³

¹Assistant Professor, VIVA Institute of Management & Research

²Principal, Mahendra Pratap Sharda Pratap Singh College of Arts, Commerce & Science

³Director, VIVA Institute of Management & Research

*Corresponding Author

Dr. Neelam Gupta

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Abstract: The COVID-19 pandemic has significantly influenced health behaviors, particularly in the realm of dietary supplement consumption. This research examines the growth in health supplement usage before, during, and after the pandemic, highlighting shifts in consumer motivations and preferences. Prior to COVID-19, supplements were commonly used for general wellness and targeted health concerns. During the pandemic, there was a notable increase in immune support supplements, driven by heightened health awareness and the need for stress management. In the recovery phase, individuals began focusing on supplements that promote long-term health and resilience. This study provides insights into the evolving landscape of health supplement consumption and underscores the importance of maintaining a balanced approach to health during and beyond public health crises.

Keywords: COVID-19, Health Supplements, Immune Health, Consumer Behaviour, Post-Pandemic, Wellness.

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INTRODUCTION

The COVID-19 pandemic has had a profound impact on individual health behaviors and attitudes towards wellness. Prior to the pandemic, many individuals incorporated dietary supplements into their daily routines primarily for general wellness and to address specific health concerns. Common supplements included multivitamins, omega-3 fatty acids, and probiotics, used to fill nutrient gaps and support various bodily functions.

As the pandemic unfolded, the focus shifted markedly towards immune support. The increased awareness of the importance of a robust immune system prompted many to enhance their intake of supplements such as vitamin C, vitamin D, and zinc, which are known for their immune-boosting properties. Additionally, the stress and anxiety associated with the pandemic led to a rise in the use of supplements aimed at managing these feelings, including magnesium and adaptogenic herbs like ashwagandha.

In the post-COVID landscape, individuals are not only concerned with immediate recovery from the virus but also with long-term health and resilience. This has led to a sustained interest in supplements that support recovery, manage inflammation, and promote overall well-being.

This paper aims to explore these trends in health supplement usage across three distinct phases: before, during, and after COVID-19. By analyzing consumer motivations and the shifting landscape of dietary supplement use, this research seeks to contribute valuable insights to the fields of nutrition and public health, highlighting the importance of informed supplement use in supporting overall health in a changing world.

LITERATURE REVIEW

Francis et al. (2022) investigated dietary supplement consumption patterns during and after COVID-19 using data from ScienceDirect. The study reported a significant increase in the use of supplements such as vitamin C, vitamin D, and

multivitamins due to heightened awareness of immune health. It further highlighted that this trend has continued in the post-pandemic period, reflecting a long-term shift toward preventive healthcare and wellness practices.

Naidu (2021) examined the role of dietary factors in enhancing health during the COVID-19 pandemic, focusing on the importance of micronutrients and macronutrients in supporting immune function. The study emphasized that nutrients help in inhibiting viral entry, regulating immune responses, and reducing oxidative stress. It also highlighted the role of proper nutrition in recovery and reducing health risks, especially among vulnerable populations.

Louca et al. (2021) conducted a large-scale population study to assess the relationship between dietary supplement use and COVID-19 risk. The findings suggested that supplements such as probiotics, omega-3 fatty acids, and vitamin D were associated with a modest reduction in infection risk. However, the study concluded that evidence remains inconclusive and further clinical research is required.

Feng et al. (2021) in a review published by Elsevier, evaluated the effectiveness of nutritional and herbal supplements in COVID-19 prevention and recovery. The study suggested that certain supplements, particularly zinc and herbal formulations, may aid in symptom relief and recovery. However, it also emphasized the need for stronger scientific validation.

Galanakis (2020) analyzed the impact of COVID-19 on food systems and consumer behavior, highlighting a shift toward health-conscious consumption. The study found an increased demand for functional foods and dietary supplements as preventive measures, a trend that is expected to continue in the post-COVID period.

Hamulka et al. (2020) explored consumer attitudes toward supplement use during the pandemic and reported a significant rise in the intake of immune-boosting nutrients such as zinc, vitamin C, and herbal products. The study identified increased health awareness and fear of infection as key drivers, while also raising concerns about misinformation and excessive consumption.

The publication by Elsevier (2014) provided a comprehensive overview of dietary supplements, focusing on their safety, efficacy, and regulatory aspects. It highlighted that although supplements are perceived as safe due to their natural origin, they are regulated as foods rather than pharmaceuticals. The study also emphasized the importance of scientific evaluation and awareness, which remains highly relevant in the post-COVID context.

RESEARCH GAP

Although several studies have explored the benefits, safety, and market trends of dietary supplements, limited research has specifically examined the behavioral shift in consumer supplement usage before, during, and after the COVID-19 pandemic in the Indian context. Previous studies have mainly focused on the nutritional benefits of supplements, regulatory challenges, or global market growth, but fewer studies have analyzed consumer perceptions, satisfaction levels, and long-term intentions to continue supplement use following the pandemic.

Furthermore, there is a lack of empirical research that evaluates the relationship between supplement consumption and individuals' intention to improve immune health after recovering from COVID-19. In addition, studies focusing on urban populations such as Mumbai and their accessibility and satisfaction with supplement availability in the post-pandemic period remain limited.

Therefore, this study attempts to fill this gap by analyzing consumer perceptions, usage patterns, and satisfaction levels regarding health supplements after COVID-19, while also examining the relationship between supplement use and the intention to enhance immune health.

RESEARCH OBJECTIVES

1. To evaluate the perceptions of respondents regarding the effectiveness of health supplements in supporting immune system function during and after the COVID-19 pandemic.
2. To assess the relationship between the use of health supplements and the intention to improve immune health post-COVID.
3. To analyze the satisfaction levels of respondents regarding the availability of health supplements in the market post-COVID.

RESEARCH METHODOLOGY

Research Design

This study adopts a descriptive research design using a structured questionnaire.

Sample Size

A total of 104 respondents were selected from the Mumbai region.

Data Collection

Primary Data: Structured questionnaire

Secondary Data: Books, journals, and articles

Statistical Tool

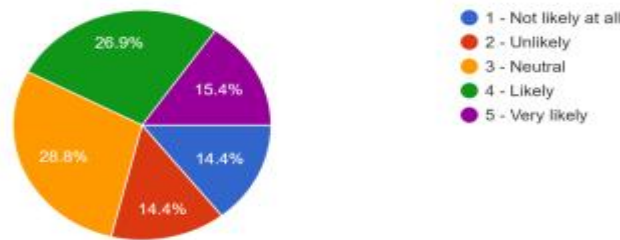
Chi-Square Test of Association

Data Analysis and Interpretation

1- Continuation of Health Supplement Usage Post-COVID

1. On a scale of 1 to 5, how likely are you to continue using health supplements post-COVID for maintaining your overall well-being?

104 responses

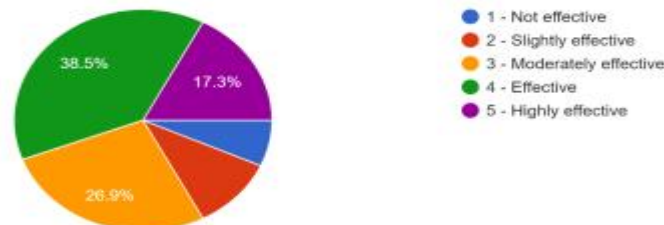


The data reveals mixed attitudes towards continuing health supplement use post-COVID. While 28.8% of respondents are neutral or undecided, 26.9% express a willingness to continue, and 15.4% are very likely to maintain their regimen. However, 14.4% are unlikely or not likely to continue using supplements, indicating some resistance to post-pandemic usage.

2- Perceived Effectiveness of Health Supplements

2. Please rate the effectiveness of health supplements in supporting your immune system during and after the COVID-19 pandemic.

104 responses

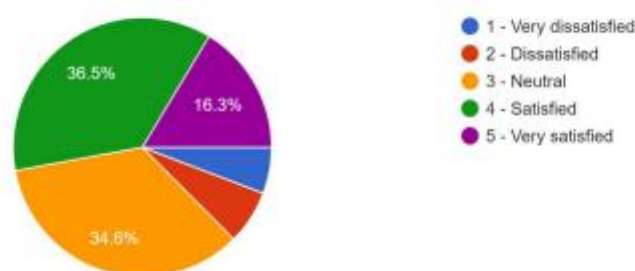


The data shows that a majority of respondents (38.5%) believe health supplements are effective in supporting immune health during and after the COVID-19 pandemic. An additional 44.2% perceive them as moderately to highly effective, reflecting strong confidence in their benefits. Though smaller percentages view supplements as slightly effective or not effective, the overall trend highlights widespread belief in their immune-boosting potential.

3- Satisfaction with Availability of Health Supplements

3. How satisfied are you with the availability of health supplements in the market post-COVID?

104 responses



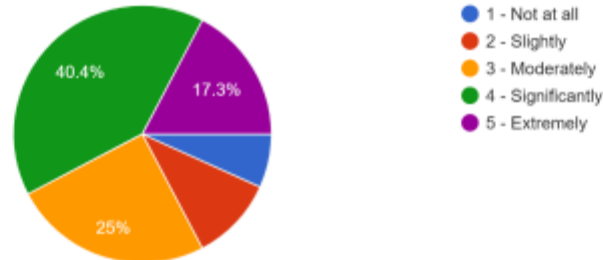
The data shows that the majority of respondents (52.8%) are satisfied or very satisfied with the availability of health

supplements post-COVID, suggesting positive sentiment toward their accessibility. Additionally, 34.6% of respondents remain neutral, indicating mixed feelings or indifference. While many express satisfaction, the neutral responses suggest there may still be areas for improvement or differing experiences in accessing supplements.

4- Role of Supplements in Post-COVID Recovery

4. To what extent do you believe that health supplements have contributed to your post-COVID recovery, if applicable?

104 responses



The data shows that a large portion of respondents (40.4%) believe health supplements significantly contributed to their post-COVID recovery, highlighting their perceived importance in the recovery process. Additionally, 25% and 17.3% view supplements as having a moderate or extreme impact, reinforcing their role in recovery. However, smaller percentages report minimal or no benefit, suggesting that some individuals feel supplements played little to no role in their recovery.

Hypothesis Testing: Chi-Square Test of Association

Objective

To examine whether there is a significant association between the use of health supplements and the intention to improve immune system function.

Hypotheses

Null Hypothesis (H_0): There is no significant relationship between supplement use and intention to improve immunity.

Alternative Hypothesis (H_1): There is a significant relationship between supplement use and intention to improve immunity.

Methodology

A Chi-Square Test of Association was applied to data collected from 104 participants. The variables were categorized as: Use of Supplements (Yes/No)

Intention to Improve Immunity (Yes/No)

Results

The calculated Chi-Square value was $\chi^2 = 23.60$ with 1 degree of freedom. The critical value at a 5% significance level ($\alpha = 0.05$) is 3.84.

Since the p-value ($p < 0.001$) is less than the significance level ($\alpha = 0.05$), the result is statistically significant.

Decision

Since $\chi^2 (23.60) > 3.84$ and $p < 0.05$, the result is statistically significant.

Null Hypothesis (H_0): Rejected

Alternative Hypothesis (H_1): Accepted

Conclusion

There is a statistically significant association between the use of health supplements and the intention to improve immune system function.

Interpretation

The findings suggest that individuals who use health supplements are more likely to exhibit an intention to enhance their immunity, indicating a positive relationship between supplement consumption and health awareness.

DISCUSSION

The results indicate a strong shift toward preventive healthcare and increased awareness of immune health. The findings align with previous studies, confirming that health crises significantly influence consumer behavior and supplement usage.

Key Findings

- Increased awareness of immune health
- Strong belief in supplement effectiveness
- Positive association between supplement use and immunity intention
- Moderate satisfaction with availability

Overall Conclusion

The study concludes that the COVID-19 pandemic has significantly transformed consumer behavior toward health supplements, emphasizing preventive healthcare and long-term wellness.

Scope

The study focuses on consumer behavior, market trends, and health awareness related to dietary supplements in the post-COVID era.

Limitations

- Limited sample size
- Geographic restriction
- Time constraints
- Response bias

Recommendations

- Promote awareness of safe supplement use
- Improve accessibility and affordability
- Encourage scientific validation

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