



Exploresearch

Impact Factor (Cosmos: 6.262 & I2OR: 3.585)

© Copyright by MGM Publishing House (MGMPH)

www.mgmpublications.com



Dimensions of Consumer Apprehensions Predicting Endorsement of Ayurveda and the Intent to Consult: A Study in an Urban Indian Sample

Sucheta Joshi^{1*} & Chinmay Bapat²

¹Department of Economics, HVPS's Ramniranjan Jhunjhunwala College of Arts, Science & Commerce (Empowered Autonomous), Ghatkopar (W), Mumbai.

²Department of Psychology, SVKM's Mithibai College of Arts, Chauhan Institute of Science and Amrutben Jivanlal College of Commerce and Economics (Empowered Autonomous), Vile Parle (W), Mumbai.

*Corresponding author: suchetajoshi@rjcollege.edu.in

Citation: Joshi, S. & Bapat, C. (2026). Dimensions of Consumer Apprehensions Predicting Endorsement of Ayurveda and the Intent to Consult: A Study in an Urban Indian Sample. *Exploresearch*, 03(03), 135–146.

Article History:

Received: 14 September 2026

Revised: 27 September 2026

Accepted: 01 October 2026

Published: 05 October 2026

Keywords:

Potential Consumers, Ayurveda, Panchakarma, Apprehensions, Endorsement, Promotion.

Abstract: Ayurveda, the “science of life” indigenous to India, having existed over 5000 years—has gained increasing support and attention over the past few years—for its potential in promoting holistic health. Still, there remain challenges to the acceptance of ayurveda and its applications such as panchakarma, from the consumers’ viewpoint. There also remains a gap in understanding the specific apprehensions perceived by the potential consumers, which may hinder the acceptance ayurveda. Current study measured consumers’ perceived apprehensions regarding ayurveda and panchakarma, and two promotional outcomes — i.e. consumers’ propensity to endorse as well as their intent to consult ayurvedic practice in an urban Indian sample. Dimensionality reduction indicated four perceived apprehensions, namely — lack of trust and satisfactory services, nature of treatment, standardization and regulation related aspects, and apprehensions specific to panchakarma practice. All four apprehensions were positively correlated with each other, and negatively correlated with the two outcomes. Regression analyses showed that except for the nature of treatment, the other three apprehensions negatively predicted ayurveda endorsement as well as the intent to consult ayurvedic practice. These findings indicated a scope for awareness and initiatives to increase trust and satisfactory services, standardization and regulation aspects, as well as panchakarma practice. Conversely, the apprehensions related to the nature of treatment did not predict endorsement of ayurveda, but they positively predicted consumers’ intent to consult ayurveda. This further indicated the possible receptiveness to the initiatives of promoting ayurveda by the potential consumers. Implications for policy, practice, industry, and integrated stakeholder involvement have been discussed.

Introduction

Ayurveda, the indigenous Indian medical science whose origin dates back to more than 5000 years ago, is comprised of two words: “Ayu” – meaning “life”, and “Veda” – meaning “science” (*Ayurveda* | Directorate of AYUSH, n.d.). Recent research has shed light—on the abundant evidence for ayurveda in various forms—in response to the ill-informed criticism associated with ayurveda that, this “science of life” lacks scientific evidence (Narayana & Durg, 2021). Still, contrasting evidence from a bibliometric analysis has indicated that only 4.50% of ayurvedic studies are categorized as the WHO Grade “A” (randomized controlled trials or RCTs) evidence, suggesting meticulous efforts for RCT based evidence in promoting ayurveda (Thrigulla et al., 2022). However, it is equally important to acknowledge that rather than mimicking research methods in modern medicine, a more mindful use of modern science tools is required to study the efficacy of ayurveda and its potential for healthcare (Chaturvedi et al., 2021). Recently, the role of evolving technology has also been investigated in successfully testing and complementing this ancient holistic-health system (Singh & Sabharwal, 2023). A pragmatic, solution-driven scope for integrating ayurveda with modern medicine has also been recently discussed (Chandalia, 2025). Despite these advances, the low consumption of ayurvedic medicine is found to be directly linked with the prevailing imprecise knowledge and awareness towards ayurveda (Sharma et al., 2024). Thus, an investigation of perceived concerns and apprehensions by the potential consumer of ayurveda is an important avenue in locating the challenges to seeking ayurvedic treatment.

The current study focused on identifying such hurdles, rooted in the consumer perspectives, guiding further awareness and promotional initiatives. Recent efforts in public awareness involved participation of delegates from academia as well as industry (Sangle et al., 2024). Insights from the current study point towards the need of involving the end potential consumers of ayurveda in future efforts, being one of the primary stakeholders.

Review of Literature

• Potential of Ayurveda & Other Traditional Medicines

Patient-centric evidence is salient to optimize healthcare systems and foster informed choices. Evidence-based investigations exploring the perspective of relevant stakeholders hence become crucial in advancing particular medicinal approaches. In similar vein, it was explored why patients chose ayurveda over other healthcare systems within a pluralistic healthcare model, where the decisions were influenced not solely by availability or affordability but also by cultural beliefs, perceived safety, and disease-eradicating potential (Rastogi et al., 2023). Consumer awareness and factors influencing the choice of ayurvedic products have also highlighted the rising preference for natural and holistic remedies (Ghalawat et al., 2019). Similarly in another Indian sample of ayurvedic consumers, varying awareness levels regarding patented ayurvedic drugs were significantly influenced by age, education, and income. Hence, by targeting specific demographics, companies could more effectively promote their products and broaden consumer reach in the ayurvedic drug market (Benny, 2019). Survey-based evidence has also found a significant number of consumers choosing ayurveda over other treatments like allopathic, homeopathic, and unani medicines; primarily influenced by its perceived reliability, preventive health benefits, and complementary effects in managing common ailments such as cold, cough, and allergies. The role of ayurveda was seen not just as a treatment but as part of a broader lifestyle encompassing diet, herbs, and lifestyle changes (Arya et al., 2012).

Other studies examining public awareness and usage of traditional medicine have shed light on consumer preferences. For instance, despite Indonesia’s rich biodiversity, with over 20,000 plant species, of which 300 are used for medicinal purposes, 64.29% of the subjects preferred modern treatments, mainly due to easier access to healthcare facilities. The study found that 35.71% of the community still relied on traditional medicine, primarily for minor ailments like colds, flu, and dizziness. Preferences for traditional medicine were also linked with cultural beliefs and its perceived safety compared to modern medicine, the awareness of which might be lacking when modern medicine was given more preference (Kiromah & Widiastuti, 2020). Another study in Indonesia identified similar dominant preference for modern medicine, despite the availability and affordability of herbal treatments. Several internal and external factors were identified affecting traditional medicine consumption, including raw material availability, labour, production processes, marketing strategies, and consumer trust (Salsabila & Supriana, 2018).

Growing recognition of complementary and alternative medicine (CAM) has been observed in Africa as well. Even though the perception towards traditional medicine—especially in the educated elites—was affected by forces of colonialism, western religion and education, and further globalization, the demand for traditional medicine continues to grow in Africa as well as around the world. The demand for the traditional medicine is also observed in the treatment of chronic illnesses. High economic impact and increasing global demand is apparent from the revenue generated through traditional medicine consultations in South Africa, Australia, United States, Germany, etc (Abdullahi, 2011; Thorne et al., 2002).

Research conducted in Germany has also documented that a substantial sample of the locals indicated the acceptance of ayurveda for its medicinal and wellness applications; however, more evidence-based research is required for ayurveda to be integrated in the global healthcare system (Schiele et al., 2024). Whereas a review of research in China has explored the current acceptance as well as further scope of more informed practice of ayurveda as the Indian traditional medicine (Wu et al., 2021). Such illustrative research on the growing interest and acceptance of ayurveda highlights its scope and practice all over the world.

• **Ayurveda through the Consumers' Lens**

In studies conducted across diverse samples, consumption of ayurveda has been found to be linked with various influential factors. Such studies have also documented the wide range of applications and benefits that ayurveda provides. Social media advertising factors such as credibility, entertainment, informativeness, and interactivity were found to influence the purchasing decisions of Generation 'Y' consumers in Sri Lanka, particularly in the context of ayurvedic beauty products (Dissanayake, 2023). Similar findings have been noted where 'knowledge' and 'trust' in advertisements significantly shaped consumer choices towards health supplement and traditional medicine (Fadliyah et al., 2021), or general health products (Chih-Chung et al., 2012). In addition to the advertisement-related factors, environmental factors in family and work-settings, or increased awareness of health supplements and preventive measures in contexts of health-crisis such as COVID-19, have also significantly impacted these decisions (Fadliyah et al., 2021). Findings have also revealed that cost considerations, wealth, landholding, household size, and regional factors significantly impact the likelihood of using AYUSH healthcare (Lakshmanasamy, 2021).

In addition to peripheral factors such as above, more central to the ayurveda healthcare is the significant impact of service quality on patient satisfaction and their behavioural intentions. Identifying such specific aspects of service may empower the ayurveda healthcare providers to improve upon the patient satisfaction (Suhail & Srinivasulu, 2021) which will be crucial for ayurveda's growth. It is important to realise the holistic potential of ayurveda—as supported by the consumer preferences for ayurvedic products—mainly driven by increasing awareness of lifestyle diseases and the risks associated with chemical-based products. Relevant insights underscore the need for continued research and innovation in ayurveda to meet evolving consumer expectations and sustain its growth trajectory (Misra et al., 2020).

Growing market potential for ayurvedic services, products, and applications has become evident since a few years. For instance, a research sample comprised of 64.8% of consumers who preferred ayurveda over allopathic, homeopathic, and unani medicine. 73.2% used ayurvedic products without a doctor's prescription, highlighting strong consumer trust. The preference for ayurveda was found to be relevant not only for treatment but also in preventive healthcare, herbal cosmetics, personal care, and this widespread use was linked to ayurveda's affordability and perceived safety (Arya et al., 2012). Systematic review on RCT based studies has in fact documented the role of ayurveda in boosting the immune system (Vallish et al., 2022) making ayurvedic medicine as evidence backed preventive measure. With these wide applications of ayurveda, the economic impact of ayurveda is ever-growing, with ayurveda becoming more accessible, bridging the gap between different economic classes. While ayurveda is recognized by WHO as traditional medicine, its market in India is estimated to be expanding at a steady rate of 12–15% per year, driven by increasing consumer interest in health-conscious choices (Dhinaiya, 2019).

Psycho-social examination using the Theory of Planned Behaviour (TPB) has found that the consumer purchase behaviour towards ayurvedic products is strongly predicted by attitudes, along with some role of subjective norms – such as social influence from family and peers. Among other crucial

predictors were the perceived value of ayurveda, long-term health orientation, and perceived behavioural control reflected in availability and affordability (Tiwari & Chanchal, 2024).

- **Still Less Explored: Potential Consumers of Ayurveda**

Despite this evidence on trust of particular cohorts in the ayurvedic medicine and products, certain research evidence has noted the historical decline of ayurveda in India, during the British colonial rule – where it was deemed unscientific and was overshadowed by allopathic medicine. Furthermore, despite recent efforts to promote ayurveda with the establishment of the Ministry of AYUSH in 2014, Ayurveda still struggles with issues like lack of standardization, quality control, and global recognition. Many consumers still remain sceptical of its use and applications due to lack of awareness and accessibility (Menon & Shetty, 2020). There still remains a lack in resourceful marketing and awareness campaigns to position ayurveda as a viable alternative to allopathic medicine (Chandra, 2015). Such efforts are even more relevant when ayurveda's wide scope in positively contributing to the global mental health movement is being recognized (Halliburton, 2023), extending its relevance to from lifestyle-related to physiological as well as psychological issues (including in the treatment of psychopathology, see Kulamarva et al., 2023); as well as in medical tourism (Chandra, 2015). While AYUSH healthcare continues to gain popularity, its adoption varies across socioeconomic groups and regions. This highlights the need for policies that improve access and awareness, particularly in rural areas, to ensure broader acceptance of AYUSH as a viable healthcare option (Lakshmanasamy, 2021). Recent systematic review has documented professional hesitancy, operational barriers, lack of regulatory frameworks and rigorous research, uneven AYUSH service distribution, as well as lacking institutional reforms as the prevailing challenges to the acceptance and growth of ayurveda (Hazra et al., 2025).

Current study aimed to bring the focus back to the potential consumers of ayurveda, by identifying dimensions of their concerns or apprehensions regarding ayurveda, and exploring its role in predicting the endorsement of ayurveda as well as the intention to consult ayurvedic practitioners. Insights from such investigation may guide the informed awareness initiatives by the policy-makers, practitioners, industries, and other relevant stakeholders.

Method

For the purposes of current study, research measures were developed for administration on the sample of 'potential consumers' of ayurveda (*Ayurveda* | Directorate of AYUSH, n.d.) and panchakarma – as a specific treatment endorsed by ayurveda (*Panchkarma* | Directorate of AYUSH, n.d.). Potential consumers were defined as all individuals i.e. general audience, who may consult ayurveda and/or panchakarma, for their benefit, from the Greater Mumbai and Thane regions of Maharashtra, India. This sample of "potential" consumers was defined such that both existing consumers of ayurveda and/or panchakarma as well as consumers who may never have sought treatment of ayurveda/panchakarma could participate in the study. A uniform questionnaire (see supplementary materials) comprising of demographic details and research measures (discussed below) was administered to the whole sample.

- **Participants**

Data (see supplementary materials) from total of $N = 541$ ($M_{age} = 38.93$, $SD_{age} = 15.44$) potential consumers (Females = 239, Males = 302) was collected with the uniform questionnaire comprising of three research measures. The total sample had the distribution over the two regions as Greater Mumbai = 358 and Thane = 183.

- **Measures**

Three measures were developed including a 27-item Consumer Apprehensions measure, a 10-item Endorsement of Ayurveda measure, and a 5-item Intent to Consult Ayurveda measure. The item pool for all the measures was developed based on the themes found in literature, but more importantly based on the interviews of two subject matter experts. These experts were identified such that, they had the knowledge of ayurvedic practice, although they were not practitioners themselves. This was to ensure that the content domains of the consumer-centric measures are not biased with the practitioner viewpoints. Responses to items in all the three measures were measured on a 5-point Likert scale, "Strongly Disagree" [1], "Disagree" [2], "Neutral" [3], "Agree" [4], and "Strongly Agree" [5].

Data of the potential consumers was physically collected and recorded by two field investigators who were rigorously briefed and oriented to the standard data-collection protocol. Informed consent was

obtained from all participants before collecting the data. All the data was analysed by one of the authors who was not actively involved in the data-collection process to minimize bias.

Results & Discussion

Present study focused on identifying the dimensions of consumers' apprehensions associated with ayurvedic practice. Separate principal components analysis for the three research measures were conducted for dimensionality reduction and identification of meaningful components. Cronbach's alpha estimates of internal consistency for the respective research measures were calculated to report how consistently the constructs were measured. Finally, correlations and regression analyses between the predictors (consumer apprehensions) and outcome measures (endorsement of and intent to consult ayurveda) were conducted.

• Dimensionality of the Measures

Separate Principal Components Analysis (PCA) were conducted on the three research measures in order to identify the emerging components of the three measures. Before running each PCA model, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity were conducted to test the suitability for conducting PCA. The number of components to be extracted were identified using the parallel analysis scree plots. Finally, when more than one component was identified (when the research measure was not unidimensional) varimax rotation was used.

▪ Consumer Apprehensions Measure

Four meaningful components emerged (see figure 1 and table 1 below) from the 27-item Consumers Apprehensions measure (total measure $\alpha = 0.92$): 1. Lack of Trust & Satisfactory Services – characterized by lacking trust due to/about – side-effects, ingredients, scientific base, purity, not having personal referrals, etc. (12-items, $\alpha = 0.91$), 2. Nature of the Treatment – with aspects of expense, lengthy treatment, & precaution-focus (4-items, $\alpha = 0.74$), 3. Standardization & Regulation related apprehensions (8-items, $\alpha = 0.83$), and 4. apprehensions specific to Panchakarma practice (3-items, $\alpha = 0.73$). Although a few items had shared loadings on components, higher loadings were considered for the inclusion of items in either of the components[^].

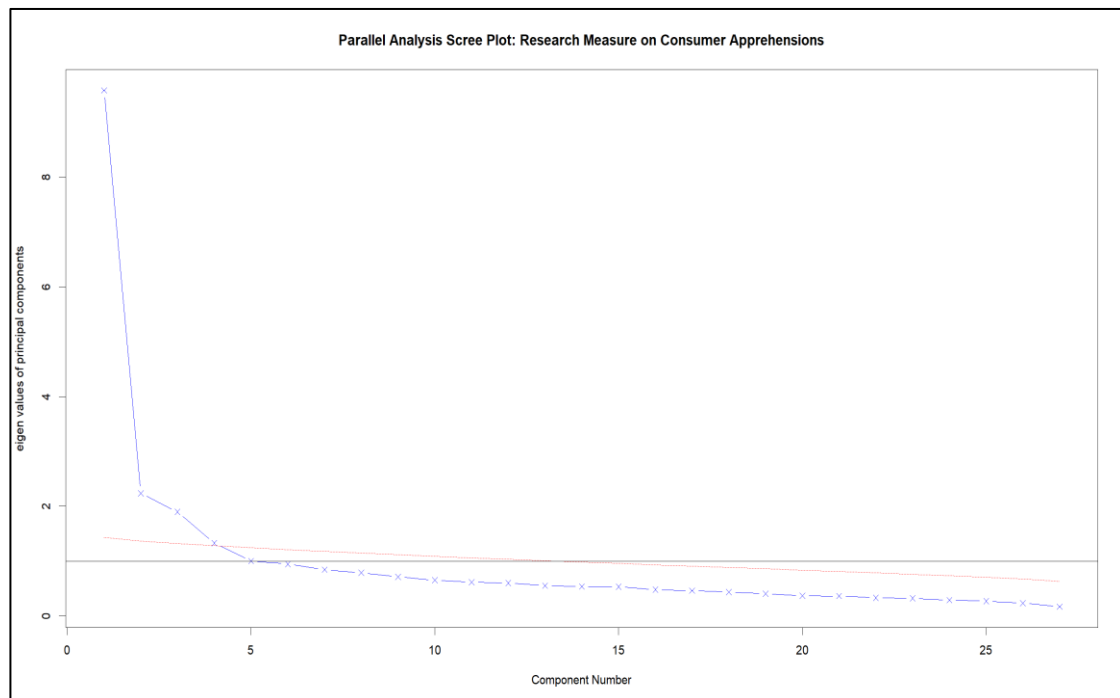


**Figure 1: Parallel Analysis Scree Plot: Consumer Apprehensions Measure
[four Components Extracted]**

Table 1: Results from the Principal Components Analysis on the Consumers Apprehensions Measure

	Loadings on Rotated Components			
	RC1	RC2	RC3	RC4
RC1: Lack of Trust & Satisfactory Services				
I would not take Ayurvedic medicines because of negative past experiences with them.	.75	.10	.19	.07
I also would not consume Ayurveda or consult Ayurvedic doctors, since my family members /relatives / friends do not do so.	.73	.11	.21	.11
I am scared of the side effects of Ayurveda.	.73	.04	.15	.13
The services provided are not given on time and manner as promised.	.70	.06	.03	.32
I don't prefer Ayurveda as doctors are not available on time.	.67	.10	.05	.40
I don't prefer Ayurveda as the facilities and material used for the service are not visually appealing.	.66	.02	.20	.19
The Ayurvedic practices staffs do not effectively inform me regarding the schedule of the treatment.	.62	-.02	.26	.38
I am strongly concerned about the heavy quantity of metals present in Ayurvedic medicines.	.61	.04	.28	.07
I believe Ayurveda is less scientific & more based on Puranas (traditional system or myths).	.54	.11	.25	.04
I doubt the purity of Ayurvedic medicines.	.51	.23	.47	.06
I don't prefer Ayurvedic treatment as the clinics are very far from where I reside.	.50	-.06	.30	.38
I don't prefer Ayurveda as it takes long hours for consultation. [^]	.40	.01	.35	.52
RC2: Nature of Treatment				
Ayurvedic medicines are very expensive.	.09	.89	.04	-.03
Ayurvedic treatments are not pocket friendly.	.24	.86	-.06	-.07
Ayurvedic medicines take a very long time to cure the disease.	.05	.60	.27	.27
Ayurvedic doctors recommend a big list of what to eat and what not to eat (पथ्य).	-.24	.47	.46	.25
RC3: Standardization & Regulation				
I believe that there is no standardisation in Ayurvedic medicines.	.16	.10	.75	.06
I feel concern about the Ayurvedic practice being unregulated.	.29	.05	.61	.16
Ayurveda may be useful only for certain diseases such as arthritis, stomach related problems, hereditary issues, etc.	.15	.10	.53	.34
There is no laboratory testing done for the Ayurvedic medicines.	.47	.15	.51	-.01
In Ayurveda there's no availability of modern looking equipment.	.34	-.09	.49	.40
I feel Ayurvedic treatment is rather very cheap which makes it difficult to trust.	.42	-.15	.49	.12
I would not consult Ayurvedic doctors because I am not aware about Ayurveda as one of the methods for treating illnesses.	.19	.01	.48	.44
I do not feel that Ayurvedic medicines/treatments are worth the money paid. (i.e. There is no value for money in case of Ayurvedic medicines.)	.27	.29	.47	.27
RC4: Panchakarma Practice				
I don't know enough about Panchkarma Practice.	.05	-.02	.28	.73
I don't trust the Panchkarma Practice.	.27	.17	.13	.72
I don't prefer Panchkarma Practice for any of the reasons mentioned above.	.56	.18	-.10	.58

Note. N = 541. The extraction method was principal components analysis with varimax rotation. Loadings above .40 are in bold. [^]Item was clubbed under RC1 due to its coherence with other items despite having a higher shared loading on RC4. [KMO = 0.92; Bartlett's Test of Sphericity: $\chi^2(351) = 7018.24, p < .0001$]

▪ Endorsement of Ayurveda Measure

A unidimensional structure was found (see figure 2 and table 2 below) for the outcome measure of Endorsement of Ayurveda (10-items, $\alpha = 0.87$). A high Cronbach's Alpha value confirmed the nature of this outcome measure as homogenously measuring the single construct of Endorsement of Ayurveda.

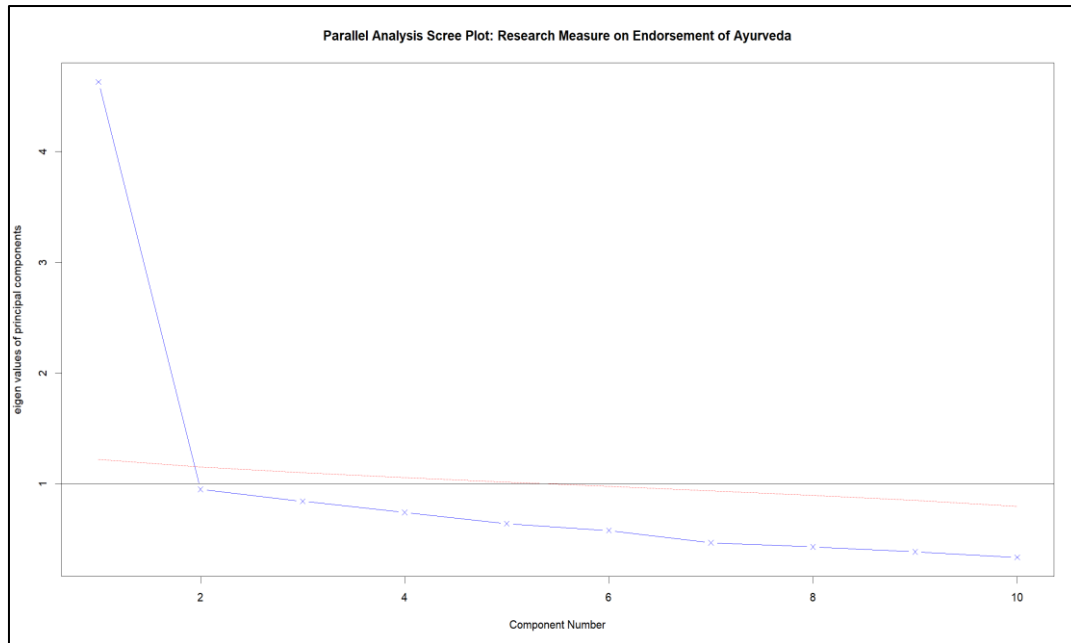


Figure 2: Parallel Analysis Scree Plot: Endorsement of Ayurveda Measure [unidimensional]

Table 2: Results from the Principal Components Analysis on the Endorsement of Ayurveda Measure

	Loadings
I would consult an Ayurvedic doctor since I have complete trust in their practice.	.76
I would support and recommend people consulting Ayurvedic Practitioners than other medicine practices.	.75
I would like Ayurveda to become a more established and "go to" practice as compared to other medicine practices.	.74
I believe that the time of treatment taken in Ayurveda is justified by addressing the root cause of the concern.	.70
Ayurveda does not need any validation since it is developed in and is existing for thousands of years in our country.	.69
I would consult Panchkarma Therapists since I trust and see value in their practice.	.68
Ayurveda is a way of life and hence is not limited only to the treatment of diseases.	.67
Since Ayurveda considers every individual an independent and unique body, there cannot be standardisation under this treatment.	.64
I believe that Ayurveda does not have any side effects.	.63
I believe it is a myth that Ayurveda takes a long time to cure for all types illness.	.52

Note. $N = 541$. The extraction method was principal components analysis with varimax rotation. Loadings above .40 are in bold. [KMO = 0.90; Bartlett's Test of Sphericity: $\chi^2(45) = 1946.94$, $p < .0001$]

▪ Intent to Consult Measure

A unidimensional structure was also found (see figure 3 and table 3 below) for the second outcome measure of Intent to Consult Ayurveda (5-items, $\alpha = 0.92$). Again, the high Cronbach's Alpha value confirmed the nature of this outcome measure as homogenously measuring the single construct of Intent to Consult Ayurveda.

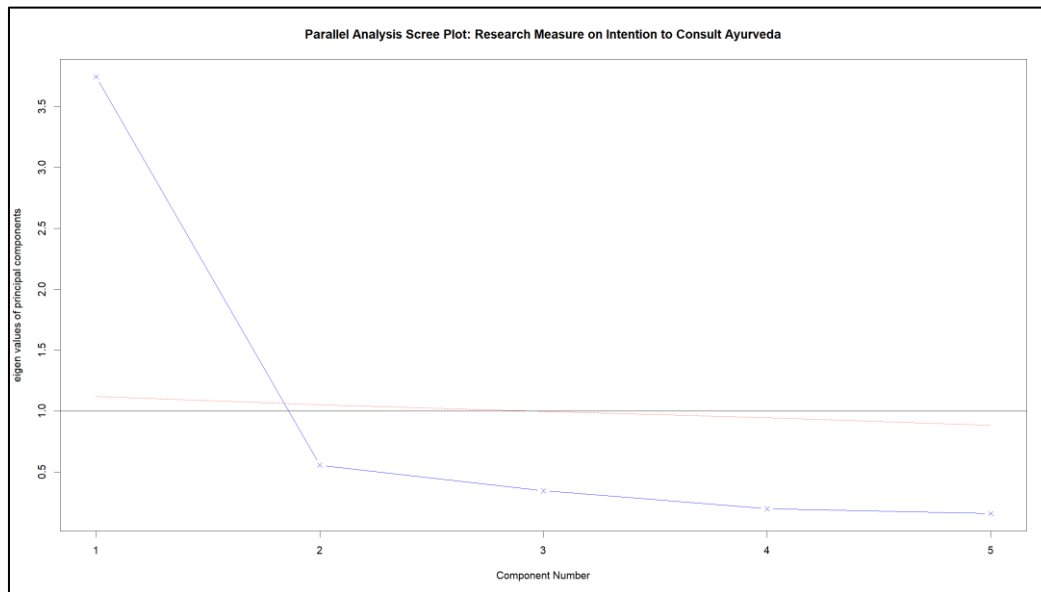


Figure 3: Parallel Analysis Scree Plot: Intent to Consult Ayurveda Measure [unidimensional]

Table 3: Results from the Principal Components Analysis on the Intent to Consult Ayurveda measure

	Loadings
I would like my friends and family members to consult Ayurvedic practitioners for their health concerns.	.90
I would encourage as many people as possible to consult Ayurvedic practitioners for their health concerns.	.87
In addition to Ayurveda, I would also like to promote consultation of Panchkarma Therapy Practitioners.	.86
I would like to consult Panchkarma Therapy for my health concerns in addition to Ayurveda.	.86
I would like to primarily consult Ayurvedic practitioners for my health concerns.	.84

Note. $N = 541$. The extraction method was principal components analysis with varimax rotation. Loadings above .40 are in bold. [KMO = 0.83; Bartlett's Test of Sphericity: $\chi^2(10) = 2041.85$, $p < .0001$]

• Correlation & Regression Analyses

Before proceeding with further analysis, outlier screening was conducted with box and whisker plots (see supplementary materials). Followed by the same, detection of influential/extreme cases was conducted using the Rosner's test. One score on the Endorsement of Ayurveda measure was found to be an extreme score, and hence the responses from the respective participant were omitted before proceeding further.

Table 4: Shapiro-Wilk Normality Test output for the Apprehension Scales scores and Outcome Measures Scores

Variable	Statistic	p value	Normality
(Lack of) Trust-& Satisfactory Service	.986	<0.001	No
Treatment-Nature (concerns)	.982	<0.001	No
Standardization-Regulation (concerns)	.991	<0.01	No
Panchakarma (concerns)	.961	<0.001	No
Endorsement of Ayurveda	.988	<0.001	No
Intent to Consult Ayurveda	.960	<0.001	No

Note. Univariate normality tests were conducted as a part of assumptions test in order to determine the appropriate method of correlation.

As all the six scores were not normally distributed (see table 4 above), spearman rho correlation coefficients were computed to understand the relationships between these variables (see table 5 below). In line with the expectation, the four apprehension scales were positively correlated with each other, but negatively correlated with the two outcomes which were representing the promotion of Ayurveda. These two (promotional) outcome measures showed a high positive correlation. All correlations were found to be significant in varying magnitude.

Table 5: Spearman Rank-Order Correlation Coefficients

Variables	1	2	3	4	5	6
(Lack of) Trust-& Satisfactory Service	—					
Treatment-Nature (concerns)	.24***	—				
Standardization-Regulation (concerns)	.74***	.30***	—			
Panchakarma (concerns)	.57***	.19***	.55***	—		
Endorsement of Ayurveda	-.56***	-.17***	-.60***	-.48***	—	
Intent to Consult Ayurveda	-.59***	-.11**	-.56***	-.53***	.78***	—

Note. $N = 540$; *** $p < .001$, ** $p < 0.01$. Coefficients with absolute values $> .30$ have been presented in bold.

Table 6 below shows the multiple regression output with the four apprehension components predicting the promotional outcome of Endorsement of Ayurveda. It can be observed that out of the four concerns, apprehensions revolving around (lack of) Trust-& Satisfactory Service, Standardization & Regulation, and Panchakarma practice negatively predicted the Endorsement of Ayurveda by the potential consumers, however the concerns specific to the Nature of Treatment did not.

Table 6: Multiple Linear Regression: Predicting Endorsement of Ayurveda From Four Apprehension Components

	Estimate	SE	t value	p-value	95% CI (LL)	95% CI (UL)
(Intercept)	51.12	1.04	48.97	<.001	49.07	53.17
(Lack of) Trust-& Satisfactory Service	-.10	0.04	-2.74	<.01	-.18	-.03
Treatment-Nature (concerns)	.02	0.07	.31	0.76	-.11	.15
Standardization-Regulation (concerns)	-.45	0.06	-7.91	<.001	-.57	-.34
Panchakarma (concerns)	-.44	0.11	-3.94	<.001	-.66	-.22

Note. $N = 540$; See Supplementary Materials for Diagnostic Plots.

Similarly, another multiple regression model was run to predict the outcome of Intent to Consult Ayurveda from the four apprehension components (see table 7 below). Again, apprehensions revolving around (lack of) Trust-& Satisfactory Service, Standardization & Regulation, and Panchakarma practice negatively predicted the potential consumers' intention to consult Ayurveda. On the other hand, although there were concerns related to the Nature of Treatment, scores on the same positively predicted the Intent to Consult.

Table 7: Multiple Linear Regression: Predicting Intent to Consult Ayurveda from Four Apprehension Components

	Estimate	SE	t value	p-value	95% CI (LL)	95% CI (UL)
(Intercept)	25.80	.65	39.48	<.001	24.52	27.09
(Lack of) Trust-& Satisfactory Service	-.12	.02	-5.00	<.001	-.17	-.07
Treatment-Nature (concerns)	.10	.04	2.42	<.05	.02	.19
Standardization-Regulation (concerns)	-.15	.04	-4.07	<.001	-.22	-.08
Panchakarma (concerns)	-.37	.07	-5.21	<.001	-.50	-.23

Note. $N = 540$; See Supplementary Materials for Diagnostic Plots.

Taken together, results from the two regression analyses indicated that addressing and resolving the concerns of (lack of) Trust-& Satisfactory Service, Standardization & Regulation, and aspects of Panchakarma practice, is very much crucial in order to reduce the stunted endorsement of ayurveda as well as the lacking intention to consult ayurvedic practice by the potential consumers. It is vital to note that, although few concerns were present with regards to the nature of treatment in this traditional medicine, presence of these concerns did not hamper the endorsement. More importantly,

presence of these concerns in fact increased potential consumers' proclivity in approaching the Ayurvedic treatment, observed through their intention to consult.

Results of the current study are in line with the past research indicating consumer scepticism about ayurveda and its applications, due to lack of awareness and accessibility (Menon & Shetty, 2020). Reviews had also identified professional hesitancy, operational barriers, lack of regulatory frameworks and rigorous research, uneven AYUSH service distribution, lacking institutional reforms; lack of resourceful marketing and awareness campaigns as the prevailing challenges to the acceptance and growth of ayurveda (Hazra et al., 2025; Chandra, 2015). Converging with the findings that the three consumer apprehensions negatively predicted endorsement and intent to consult ayurvedic medicine, low consumption of ayurvedic medicine was found to be directly linked with the prevailing imprecise knowledge and awareness towards ayurveda (Sharma et al., 2024). Efforts in awareness initiatives have become increasingly relevant as ayurveda's scope in significantly contributing to the global mental health movement is being recognized (Halliburton, 2023). In line with past research (Lakshmanasamy, 2021), findings of the current study also highlight the need for policies that improve access and awareness across different regions, to ensure broader acceptance of ayurveda as a viable healthcare option. Hence a pragmatic, solution-driven scope for integrating ayurveda with modern medicine also requires attention (Chandalia, 2025).

Current study highlighted the future directions for promotion of ayurveda which are in line with past research. Still, the results of the current study provide a foundation upon which future research can build with a solution-driven, action-oriented approach. Limits of this study must be taken into account while contextualizing the findings. Current study focused specifically on two urban regions of Maharashtra, India. Conducting similar studies in diverse regions can suggest the scope and applicability of these findings. Future research may also attempt to uncover the latent structures underlying the consumer apprehensions by employing exploratory factor analysis, which may be more suitable for the Likert scale responses without assuming a continuous nature on such data.

Conclusion

Consumer apprehensions indicate that, more attention and prioritized efforts are needed in the specific aspects of ayurvedic practice/applications — such as standardization–regulation, increasing the trust and satisfactory services by promoting quality training and practice, awareness of specific ayurvedic applications such as panchakarma practice. This can be targeted by various stakeholders including the government, policy-makers, practitioners, marketers and businesses of ayurvedic medicine/products. Most importantly, consumers' receptiveness to such awareness initiatives is implied by their intent to consult ayurveda, despite being apprehensive of the nature of treatment. In conclusion, success of such awareness initiatives can be expected in promoting ayurveda with the endorsement of ayurvedic practice and applications as well as consumers' intent to consult ayurvedic practitioners as a viable health promotion/treatment approach.

References

1. Abdullahi, A. A. (2011). Trends and challenges of traditional medicine in Africa. *African Journal of Traditional, Complementary, and Alternative Medicines: AJTCAM*, 8(5 Suppl), 115–123. <https://doi.org/10.4314/ajtcam.v8i5S.5>
2. Arya, V., Thakur, R., Kumar, S., & Kumar, S. (2012). Consumer buying behaviour towards ayurvedic medicines/ products in joginder nagar- a survey. *Ayurpharm - International Journal of Ayurveda and Allied Sciences*, 1, 60–64.
3. *Ayurveda | Directorate of AYUSH*. (n.d.). Retrieved 18 August 2025, from <https://ayush.delhi.gov.in/ayush/ayurveda>
4. Benny, V. (2019). *The Impact of Patents in Ayurveda Influences Consumers in Kerala* (SSRN Scholarly Paper No. 3623638). Social Science Research Network. <https://papers.ssrn.com/abstract=3623638>
5. Chandalia, H. B. (2025). Interaction of Indian Culture and Ayurveda with Modern Medicine. *The Journal of the Association of Physicians of India*, 73(6), 46–49. <https://doi.org/10.59556/japi.73.0996>

6. Chandra, U. (2015). Consumer Preferences Towards Ayurveda Sservices In Indiranagar, Bangalore. *International Journal of Research in Engineering and Technology*, 04(26), 81–84. <https://doi.org/10.15623/ijret.2015.0426017>
7. Chaturvedi, S., Kumar, N., Tillu, G., & Patwardhan, B. (2021). Research, biomedicine and Ayurveda: From evidence-based medicine to evidence-informed healthcare. *Indian Journal of Medical Ethics*, VI(4), 301–305. <https://doi.org/10.20529/IJME.2021.039>
8. Chih-Chung, C., Chang, C., Lin, L., & Yau-Nang. (2012). The Effect of Advertisement Frequency on the Advertisement Attitude-The controlled Effects of Brand Image and Spokesperson's Credibility. *Procedia - Social and Behavioral Sciences*, 57, 352–359. <https://doi.org/10.1016/j.sbspro.2012.09.1197>
9. Dhinaiya, D. G. M. (2019). A Study On Consumer Preference And Selection Toward Ayurvedic Products. *International Journal Of Novel Research And Development*, 4(3), 1–5.
10. Dissanayake, T. (2023). *The Effects Of Social Media Advertising On Consumers Ayurvedic Beauty Products Purchasing Decision Of Generation 'Y': Special Reference To Kurunegala District In Sri Lanka*. 12, 119–133. <https://doi.org/10.31357/sljbe.v12.6798>
11. Fadliyah, H., Nurwahyuni, A., & Faradiba, F. (2021). Community Consumption of Traditional Medicine and Health Supplements During the Coronavirus Disease-2019 Pandemic. *Journal of Consumer Sciences*, 6(2), 92–110. <https://doi.org/10.29244/jcs.6.2.92-110>
12. Ghalawat, S., Mehla, S., Malik, J. S., & Goyal, M. (2019). Consumer Awareness Towards Ayurveda Products and the Factors Influencing Choice of Ayurveda Products. *Indian Journal of Extension Education*, 55(4), 81–85.
13. Halliburton, M. (2023). Hegemony versus pluralism: Ayurveda and the Movement for Global Mental Health. *Anthropology & Medicine*, 30(2), 85–102. <https://doi.org/10.1080/13648470.2020.1785842>
14. Hazra, S., Bisht, K. S., Makkar, S., & Bora, K. S. (2025). Knowledge, attitude, perception and satisfaction level of Ayurveda and allopathy in India: A systematic literature review. *Explore (New York, N.Y.)*, 21(5), 103208. <https://doi.org/10.1016/j.explore.2025.103208>
15. Kiromah, N. Z. W., & Widiastuti, T. C. (2020). Level of use and public awareness in consumption of traditional medicines in work area of Health Center Gombong I. *International Journal of Health Science and Technology*, 1(3), 26–31. <https://doi.org/10.31101/ijhst.v1i3.1207>
16. Kulamarva, K., Shivakumar, V., Chikkanna, U., Ramakrishna, K. K., Bhargav, H., & Varambally, S. (2023). Role of Ayurveda in the management of psychotic disorders: A systematic review of clinical evidence. *Journal of Ayurveda and Integrative Medicine*, 14(3), 100720. <https://doi.org/10.1016/j.jaim.2023.100720>
17. Lakshmanasamy, T. (2021). Demand for AYUSH Healthcare in India: Multinomial Logit Estimation of the Utilisation of Indian System of Medicine. *Journal of AYUSH: Ayurveda, Yoga, Unani, Siddha and Homeopathy*, 10, 2, 18-26. <https://doi.org/10.37591/JOAYUSH>
18. Menon, K. R., & Shetty, S. (2020). Trends In Consumption Of Ayurveda. *Paripex - Indian Journal Of Research*. <https://www.worldwidejournals.com/paripex/article/trends-in-consumption-of-ayurveda/MTM1Mjk=/>
19. Misra, R., Singh, S., & Mahajan, R. (2020). *An Analysis on Consumer Preference of Ayurvedic Products in Indian Market* (pp. 925–941). <https://doi.org/10.4018/978-1-6684-3546-5.ch045>
20. Narayana, D. B. A., & Durg, S. (2021). Ayurveda: (W)here is the evidence. *Journal of Ayurveda and Integrative Medicine*, 12(2), 408–411. <https://doi.org/10.1016/j.jaim.2020.07.001>
21. *Panchkarma | Directorate of AYUSH*. (n.d.). Retrieved 19 August 2025, from <https://ayush.delhi.gov.in/faqs/panchkarma>
22. Rastogi, S., Tiwari, V., Jatav, S. P., Singh, N., Verma, S., Verma, S., Sharma, K. G., Pandey, P., & Singh, G. (2023). A survey of patients visiting an Ayurvedic teaching hospital for factors influencing the decision to choose ayurveda as a health care provider. *Journal of Ayurveda and Integrative Medicine*, 14(1), 100539. <https://doi.org/10.1016/j.jaim.2021.100539>

23. Salsabila, & Supriana, T. (2018). Strategies to increase the consumption of traditional medicine in Medan. *IOP Conference Series: Earth and Environmental Science*, 122(1), 012006. <https://doi.org/10.1088/1755-1315/122/1/012006>
24. Sangle, S., Pakhale, P., Joshi, M., & Saggam, A. (2024). Conference report: Dhara - Vision Ayurveda 2047. *Journal of Ayurveda and Integrative Medicine*, 15(1), 100848. <https://doi.org/10.1016/j.jaim.2023.100848>
25. Schiele, J. K., Jeitler, M., Michalsen, A., Stapelfeldt, E., Ortiz, M., Sigl, M., Brinkhaus, B., Wischnowsky, M., & Kessler, C. S. (2024). Wellness or medicine? Use and perception of Ayurveda in Germany: data from an online-representative cross-sectional study. *Frontiers in Medicine*, 11, 1408609. <https://doi.org/10.3389/fmed.2024.1408609>
26. Sharma, G., Sharma, V., Mridula, M. K., Agrawal, A., Ram, A., Khuntia, B. K., Mohanty, S., Dhanlika, M. J., Lamo, P., & Pandey, R. M. (2024). Knowledge, attitude and practice towards Ayurveda among patients attending cardiology and neurology clinics at a tertiary care institute in India. *The National Medical Journal of India*, 36(3), 145–149. https://doi.org/10.25259/NMJI_63_21
27. Singh, I., & Sabharwal, P. (2023). Evolution of Tools for Scientific Validation of Ayurveda in Amalgamation with Artificial Intelligence -A Review 1, 2 * Pooja Sabharwal , Ishant. *Future Health*, 1, 92–94.
28. Suhail, P., & Srinivasulu, Y. (2021). Perception of service quality, satisfaction, and behavioral intentions in Ayurveda healthcare. *Journal of Ayurveda and Integrative Medicine*, 12(1), 93–101. <https://doi.org/10.1016/j.jaim.2020.10.011>
29. Thorne, S., Paterson, B., Russell, C., & Schultz, A. (2002). Complementary/alternative medicine in chronic illness as informed self-care decision making. *International Journal of Nursing Studies*, 39(7), 671–683. [https://doi.org/10.1016/s0020-7489\(02\)00005-6](https://doi.org/10.1016/s0020-7489(02)00005-6)
30. Thrigulla, S. R., Sridevi, V., Krishna, B. V., Naik, M. K., Devi, K. R., Shruthi, G., Tripathi, A., Prasad, G. P., Prasad, P. V. V., Lavaniya, V. K., & Srikant, N. (2022). Clinical studies in Ayurveda: A bibliometric analysis of articles indexed in AYUSH research portal. *Ayu*, 43(3), 75–81. https://doi.org/10.4103/ayu.ayu_144_21
31. Tiwari, B. B., & Chanchal. (2024). Needo-Consumption Affecting Purchase of Ayurvedic Products: An Empirical Study of Delhi NCR Region In India. *Journal of Research Administration*, 6(1). <https://journalra.org/index.php/jra/article/view/1517>
32. Vallish, B. N., Dang, D., & Dang, A. (2022). Nature and mechanism of immune boosting by Ayurvedic medicine: A systematic review of randomized controlled trials. *World Journal of Methodology*, 12(3), 132–147. <https://doi.org/10.5662/wjm.v12.i3.132>
33. Wu, L., Chen, W., & Wang, Z. (2021). Traditional Indian medicine in China: The status quo of recognition, development and research. *Journal of Ethnopharmacology*, 279, 114317. <https://doi.org/10.1016/j.jep.2021.114317>.

