

# Awareness and Perception of New AYUSH Guidelines among Dentists of Chennai, Tamil Nadu, India: A Questionnaire Survey

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## ABSTRACT

**Introduction:** Ayurveda, Yoga, Unani, Siddha and Homeopathy (AYUSH) is an alternative medical system and has found acceptance globally for its use of rich medical plants, minerals, and other natural commodities in treating different illness. In November 2020, AYUSH changed its curriculum guidelines for its postgraduate students, which allowed them to perform a variety of General Surgery, including Orthopaedic, Ophthalmology, Ear Nose Throat (ENT), and dental treatments.

**Aim:** To assess the awareness and perception among the dentists of these new AYUSH guidelines and to record their opinion.

**Materials and Methods:** The cross-sectional study was conducted in Department of Oral Medicine and Radiology at Saveetha Dental College, Chennai, Tamil Nadu, India, from January 2021 to February 2021. A self-constructed questionnaire of 15 questions

was circulated via google forms. The response was collected from 123 dentists. Statistical analysis was done on the IBM software 24 version. Chi-square test was used to assess the relationship between dentists' awareness of dental procedures included under the new AYUSH curriculum and their perception of ayurvedic practitioners performing the dental treatment efficiently.

**Results:** Only 79 (64.2%) of dentists were aware of the term AYUSH and 53 (43%) dentists were aware of the new guidelines added to the postgraduate curriculum in AYUSH. About, 57.7% of dentists reported that the Ayurvedic practitioners cannot handle the complications occurring during dental procedures.

**Conclusion:** Dentists were not in favour of AYUSH practitioners performing dental treatments. The present study also concluded that dental procedures cannot be effectively and efficiently performed by AYUSH practitioners.

**Keywords:** Dentistry, Dental procedures, New ayurvedic curriculum, Practice guidelines

## INTRODUCTION

According to UN census data for 2019, the population of India is about 136.64 crores [1]. It is the home of various cultural and religious groups in the world. There are various medicine systems practiced in India [2]. One of them is the Complementary Alternative Medicine System (CAM). CAM is a wide collection of approaches to treat patients that are not considered to be part of the care usually provided by allopathic doctors and other healthcare professionals [3]. The evolution of this alternative form of medicine got wide popularity among the public and gained credibility within health research. These systems are recognised and currently used in practice globally [4].

An important Complementary Medical practice system is AYUSH (Ayurveda, Yoga, Unani, Siddha, and Homeopathy) [5]. Ayurvedic medicine is one of the world's oldest holistic healing systems. It was developed more than 3,000 years ago in India. It helps to promote good health and to fight the disease. But treatments may be geared toward specific health problems [6]. Yoga is a combination of breathing exercises, physical postures, and medication. It has been practiced for over 5000 years. It is considered a mind-body intervention that is used to reduce the health effects of generalised stress and it is believed to calm the nervous system and balance the body, mind, and spirit. Here practitioners prevent specific diseases and maladies by keeping the energy meridians open and life energy (Prana) flowing [7]. The Siddha system originated in South India. It propounds that the physical structure of the universe and man are basically made up of five elements. The Unani system is a great healing art as well as science. It treats a person as a whole not as a group of individual parts. It aims at treating the body, mind, and soul. This system is based on the Hippocratic theory of four humours. Homeopathy is a medical system based on the belief that the body can cure itself. It can be used for minor issues like bruises, scrapes, headaches, nausea, coughs, and colds [5]. The

National Policy of AYUSH is a regulatory and promotional framework formulated by the Government of India under the Ministry of Health and Family Welfare, established in 2002. The Department of AYUSH was formed in 2003, to provide focused attention towards research, aim at the prevention of diseases, and education in the fields of unique and traditional Indian systems of medicine [8].

AYUSH courses are on the rise as there is an increase in medical facilities in India, and there has been an increased demand for healthcare professionals in the field [9]. These courses are gradually becoming an attraction to the students as well. There are five undergraduate courses and nine postgraduate courses offered by the AYUSH. In November 2020, AYUSH had announced new guidelines for its postgraduate students. The principles regulations were published in the Gazette of India with CG-DL-E-20112020-223208. This recent guideline permits the students to receive formal training to perform a variety of general surgeries, including orthopaedics, ophthalmology, otolaryngology, and dental care. This new amendment has been enacted as a law, by the amendment regulation act 2020. Regarding dental treatment plans, the act stated that the postgraduate students of ayurveda can perform root canal treatment and extraction of mobile teeth [10].

There are studies examining the benefits of AYUSH and its excellence among allopathic physicians [11,12]. However, there is a lacuna in the literature about dentists perception of the AYUSH curriculum change. Thus, the aim of this research was to assess and evaluate amongst the dental practitioners about their knowledge of the newly enacted amendment to AYUSH postgraduate curriculum which permits AYUSH-trained doctors to perform dental procedures.

## MATERIALS AND METHODS

The cross-sectional study was conducted in Department of Oral Medicine and Radiology at Saveetha Dental College, Chennai, Tamil

Nadu, India, from January 2021 to February 2021. The study was approved by the Institutional Review Board and Ethical Clearance was obtained (ref no: IHEC/SDC/OMFS-2001/22/419).

**Inclusion and Exclusion criteria:** All dentist in practice either in an institution or private clinics were included in the study. All the dental students in training were excluded from the study.

**Sample size calculation:** Simple random sampling was used for the study. A pilot study was done with the sample size of 20 and sample size was calculated using G Power software. Total 123 dentist participated in the study.

## Questionnaire

Questionnaires were prepared and distributed among the dentist (N=123) through an online portal system. A total of 15 questionnaire was conceptualised and designed by oral medicine specialist based on the new guidelines. The participants were informed in detail about the design and purpose of the study. The anonymity of the participants was maintained throughout the study. The first part included questions regarding the demographic status. The demographic details included designation, period of practice, age, and email address. The second part had questions regarding the new amendments in AYUSH postgraduate curriculum.

## STATISTICAL ANALYSIS

Collected data were entered into a Microsoft excel 2010 sheet and statistical analysis was done in the IBM software, version 24. Association between the dentist's awareness of dental procedures permitted under new AYUSH guidelines and the perception of dentists towards ayurvedic practitioners performing dental treatment efficiently was tested by the Chi-square test and the level of significance were set at 0.05.

## RESULTS

Out of total, 50 male and 73 female dentists participated in this online survey and 44 (35.8%) participants were aware between 21-30 years of age, 32 (26%) in the age group of 31-40 years [Table/Fig-1]. Seventy nine (64.2%) participants aware of the indigenous alternative system in India. Only 58.5% (N=79) of participants were aware of the term AYUSH [Table/Fig-2]. Five questions were related to perception about the new AYUSH guidelines among dentists. Twenty six (21.1%) participants reported that ayurvedic practitioners can perform a dental treatment efficiently while, 63 (51.2%) were unsure of their perception. Fifty six (45.5%) participants answered correctly that Indian Dental Association did not approve the new postgraduate guidelines of AYUSH (2020) [Table/Fig-3]. Chi-square test was done to assess the relationship between dentists' awareness and perception towards new AYUSH curriculum. Significant association was found between the awareness and perception of the dentists about the AYUSH curriculum (p-value <0.001) [Table/Fig-4].

Variables	Frequency	Percentage (%)
<b>Age range (years)</b>		
21-30 years	44	35.8
31-40 years	32	26
41-50 years	30	24.4
51-60 years	14	11.4
61-70 years	2	1.6
Above 70 years	1	0.8
<b>Gender</b>		
Female	73	59.3
Male	50	40.7
Total	123	100

[Table/Fig-1]: Frequency distribution of respondents according to age range and gender.

Questions	Frequency	Percentage
<b>Q1) Aware of the indigenous alternative medicine system in India</b>		
Yes	79	64.2
No	35	28.5
Not sure	9	7.3
<b>Q2) Aware of the term "AYUSH"</b>		
Yes	72	58.5
No	39	31.7
Not sure	12	9.8
<b>Q3) Holistic approach to healing rather than just medicine</b>		
Ayurveda	61	49.6
Siddha	44	35.8
Unani	18	14.6
<b>Q4) Entity originated in South India</b>		
Ayurveda	16	13
Siddha	76	61.8
Unani	31	25.2
<b>Q5) Total number of institutions in AYUSH</b>		
10	54	43.9
7	15	12.2
9	28	22.8
Not sure	26	21.1
<b>Q6) Aware of new guidelines added to the POSTGRADUATE curriculum of Ayurvedic studies</b>		
Yes	53	43.1
No	48	39
Not sure	22	17.9
<b>Q7) Year of new guideline release</b>		
2017	24	19.5
2018	53	43.1
2020	46	37.4
<b>Q8) Aware of the list of procedures under the new guidelines</b>		
Yes	57	46.3
No	41	33.3
Not sure	25	20.3
<b>Q9) The included procedures in dentistry, except</b>		
Extraction of teeth	41	33.3
RCT (Root canal treatment)	37	30.1
Replacement of teeth	45	36.6
<b>Q10) Ayurvedic medicines undergo scientific testing before practice</b>		
Yes	53	43.1
No	45	36.6
Not sure	25	20.3

[Table/Fig-2]: Descriptive statistics of awareness-based questions.

Questions	Frequency	Percentage
<b>Q11) Ayurvedic practitioners can perform a dental treatment efficiently?</b>		
Yes	26	21.1
No	34	27.6
Not sure	63	51.2
<b>Q12) Can AYUSH be used in emergency dental treatment?</b>		
Yes	21	17.1
No	68	55.3
Not sure	34	27.6
<b>Q13) Do you think Ayurvedic practitioners can handle the complications occurring during the dental procedure?</b>		
Yes	18	14.6
No	71	57.7
Not sure	34	27.6

Q14] Do you think the mixing of dentistry with the traditional system of AYUSH will increase patient compliance?		
Yes	25	20.3
No	65	52.8
Not sure	33	26.8
Q15] Does the Indian Dental Association approve the new postgraduate guidelines?		
Yes	8	6.5
No	56	45.5
Not sure	59	48

**[Table/Fig-3]:** Descriptive statistics of perception-based questions.

Q8	Q11			Total	$\chi^2$ value	p-value
	Yes	No	Not sure			
Yes	26	31	0	57	22.5	<0.001
No	0	3	38	41		
Not sure	0	0	25	25		
Total	26	34	63	123		

**[Table/Fig-4]:** Association between Awareness of the list of procedures under the new guidelines (Q8) and perception of dentists towards Ayurvedic practitioners performing a dental treatment efficiently (Q11).

$\chi^2$  value and p-value obtained from Chi-square test; p-value  $\leq 0.05$  was considered as statistically significant.

## DISCUSSION

The Indian government is undertaking significant improvements in the training and delivery of healthcare in the country. The emphasis is on supporting the practice of traditional Indian medicine with an allopathic system of medicine. With this goal in mind, the government established AYUSH, an indigenous entity within the Ministry of Health and Family Welfare that represents the five traditional branches of medicine [13]. The first rules were developed in 2016 after much consideration and conversation, and the final revision to the previous guidelines was authorised and ratified in November 2020. This guideline enhanced modification said that AYUSH practitioners must undergo training to do minor surgical and dental procedures in their area of practice. This new law elicited varied reactions from dentistry and medical professionals. Many dentists in the dentistry sector are still ignorant of the Health Department new suggestion [10]. This cross-sectional survey was conducted to evaluate and analyse dentists' knowledge and perspectives on the new curriculum.

There were 123 responses to this descriptive cross-sectional study. In the current study, 79 (64.2%) were aware of India's indigenous alternative medical system and only 72 (58.5%) of participants were familiar with the term AYUSH. According to a previous study conducted by Lakshmi GS, 88% of doctors knew what the term AYUSH meant. However, this included allopathic doctors working in a tertiary care hospital [14]. The present study only included dentists from one institution, which could explain why there is less awareness of the term AYUSH.

Ayurveda is a holistic approach to healing that goes beyond medicine. Out of total, 61 (49.6%) participants correctly answered this question. According to Singhal S and Roy V awareness of Ayurveda is high when compared to other systems in AYUSH [11]. This statement is supported by our research because half of the participants correctly answered the question. This demonstrates that dentists are more knowledgeable about ayurveda than other healthcare systems. Simultaneously, 76 (61.8%) of participants correctly identified Siddha as originating in South India. This could be because the majority of the participants in the study were from South India.

The new guidelines included in the postgraduate curriculum of ayurvedic studies were known by 53 (43.1%) of participants, 48 (39%) participants were unsure about the answer. About 22 (17.9%) participants were completely not aware of the guidelines.

According to the study by Singhal S and Roy V most of the doctors felt medical students should be familiarised with AYUSH and its advancements [11]. Root canal treatment and the removal of mobile teeth are the dental procedures covered by the new guidelines. This question was answered incorrectly by 45 (36.6%) participants. This demonstrates a decrease in dentist awareness of the dental procedures covered by the new guidelines.

Significant relationship was found between dentists' awareness of new dental procedures and their perception of Ayurvedic practitioners performing dental treatment efficiently. Thirty four (27.6%) respondents stated that ayurvedic practitioners cannot perform dental treatment efficiently, and 45 (36.6%) stated that ayurvedic medicines do not undergo scientific testing before practice. Sixty eight (55.3%) dentists stated that AYUSH cannot be used in emergency dental management, and 71 (57.7%) respondents stated that ayurvedic practitioners cannot handle dental procedure complications. According to a study published in 2020 by Ojha A et al., there is a lack of strong scientific evidence and clinical trials in AYUSH therapies [15].

The Indian government has recognised AYUSH as the Indian medical system. Numerous studies have been conducted to assess allopathic doctors' knowledge, attitude, and use of AYUSH. According to Ojha A et al., majority of doctors were aware of Ayurveda (69%), Unani (34%), Siddha (32%), Homeopathy (52%) [15]. Like the present study, a cross-sectional study regarding the knowledge, attitude and practices to fixed dose combinations use among clinicians and resident doctors were evaluated by Belhekar M this study concluded that the awareness about the recent updates in medicine is highly required for medical professionals [16]. One of the studies assessed the knowledge of ayurvedic medicine use among allopathic resident doctors, stated that 99% of residents had no opportunity to learn basics of Ayurveda and the study concluded that interventions were required to increase the knowledge and awareness about Ayurvedic medicine use among the allopathic physicians [17]. Several ayurvedic products have been used in the management of dental disease like oral mucosal lesions, periodontal diseases, temporomandibular diseases [18-24].

According to Roy V, despite the coexistence of ayurvedic and allopathic medicine systems in India for many years, most doctors of one system were unaware of the science, utility, and recent advancements of the other system [23]. Previous research has examined physician perception on integrated medicine and found that very few physicians encourage the use of traditional medicine to their patients mainly due to the lack of scientific evidence [24].

## Limitation(s)

Limitations of this study include a small sample size. The study was done in a smaller region (Chennai). Therefore, a large group of dentists should be included to provide better external validity. Based on this study, future studies are recommended with a large sample size.

## CONCLUSION(S)

The AYUSH medical system has been officially recognised and promoted by the Indian government. Only 43.1% of dentists were aware of new guidelines added to postgraduate curriculum of ayurvedic studies and 48% were unsure of the approval of these guidelines by Indian Dental association, which states that there is lack of awareness among the dentists. Public awareness of treatment services available in various forms of medicine must be spread, and patients should be given the final say over which form of treatment they would like to receive.

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