



## Cross Sectional Study

### Patient satisfaction with Ayurveda out-patient services in a tertiary healthcare setting: A descriptive cross-sectional study

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#### ABSTRACT:

**Background:** Patients' satisfaction plays an important role in determining the success of healthcare services, especially in traditional systems like Ayurveda as it is a key indicator of healthcare quality and delivery of adequate patient services. **Objectives:** To evaluate patient satisfaction levels in an Ayurveda outpatient services of a tertiary healthcare. **Methods:** A descriptive cross-sectional study was conducted in the Ayurveda Outpatient Department (OPD) of a metropolitan tertiary healthcare facility over a period of 6 months in a sample of 102 patients who were randomly chosen from those availing OPD services. A structured questionnaire was employed consisting of socio-demographic details and Patient Satisfaction Questionnaire (PSQ-18). Descriptive statistics and multiple linear regressions were used for statistical analysis. **Results:** Overall, there was high level (90%) of satisfaction among patients regarding Ayurveda outpatient care. In the individual domains, the satisfaction score was highest in the domains of Interpersonal Manner (94.5%) and Communication (91.86%), while the it was lowest in Financial Aspects domain (85.39%). Demographic characteristics revealed a predominance of women (57.8%), individuals aged 46-60 years (51%), and those educated up to high school level (70%). Employment status and socioeconomic class varied, with many of the patients being unemployed (58%) and belonging mainly to socioeconomic classes V, I and II. Multiple linear regressions showed no relationship between overall satisfaction scores and socio-demographic variables. **Conclusion:** Overall, patients expressed satisfaction with Ayurveda outpatient services, but attention to financial aspects is warranted. Understanding patient perspectives is vital for enhancing traditional healthcare delivery.

**KEYWORDS:** Ayurveda, Out-patient services, Patient satisfaction, PSQ-18 questionnaire, Tertiary healthcare

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## 1. INTRODUCTION

Patient satisfaction plays a crucial role in assessing the quality of healthcare services. With the evolving healthcare landscape, assessing patient satisfaction has become an essential component in ensuring the delivery of high-quality services. [1, 2] Patient satisfaction reflects the perceptions and needs of individuals utilizing health services and stands as a psychological consequence shaped by their healthcare experiences. [3] As the primary stakeholders in the healthcare system, patients' satisfaction plays a pivotal role in determining the success of healthcare organizations. [4-7]

Patient satisfaction is a multifaceted concept influenced by patient expectations, health status, individual characteristics, and features of the healthcare system. [8] It serves not only as a key indicator of healthcare quality but also as a means to improve service delivery, guide capacity building, and ensure effective resource allocation. As a result, the concept of patient satisfaction has gained prominence globally, with patient satisfaction surveys being acknowledged as standards for evaluating the effectiveness of healthcare provision. [9]

The utilization of patient satisfaction surveys serves as a pivotal mechanism for gathering feedback from individuals, constituting a fundamental modality for evaluating the effectiveness of healthcare provision within a specific location. These surveys shed light on both the commendable aspects and shortcomings that are inherent in the services provided within the healthcare domain. They provide a valuable numerical perspective on areas requiring improvement and help

healthcare organizations to identify and address issues that may impact patient satisfaction. [10]

One crucial area where patient satisfaction surveys have proven to be effective is in the assessment of Outpatient Departments (OPDs). The OPD serves as the primary interface between hospitals and individuals, offering a diverse range of healthcare services to the community. As the first point of contact for patients, the OPDs play an essential role in shaping patients' perceptions and experiences of the healthcare system. [11, 12]

Several studies have shown a direct correlation between the quality of care and levels of patient satisfaction, making it an essential metric for evaluating healthcare quality and assessing the performance of healthcare professionals and institutions.

Several studies have identified a clear association between care quality and patient satisfaction, underscoring its value as an essential indicator for assessing both healthcare quality and the performance of professionals and institutions.

In the context of Indian healthcare, the Ayurvedic medical system holds a crucial role in providing effective treatments across various domains. Ayurveda, as a unique healthcare system, brings its distinctive theoretical framework and treatment approach to the forefront. Ayurveda offers a range of treatment modalities for the management of different disease conditions particularly for lifestyle diseases such as obesity, hypertension, diabetes, cardiac disorders and other chronic medical conditions like arthritis. With a significant number of Ayurvedic healthcare institutions operating in the country, it

becomes imperative to enhance the quality of care to promote wider acceptance and adoption of this system.

This study thus aimed to evaluate patient satisfaction levels across various aspects of healthcare delivery within an Ayurvedic OPD service in a tertiary healthcare setting and seeks to provide valuable insights into the significance of service quality for patient contentment and the advancement of traditional healthcare systems in today's evolving healthcare landscape.

## 2. METHODOLOGY

**Study Design:** Cross-sectional survey

**Study setting:**

Ayurvedic Outpatient Department (OPD) at a tertiary care service hospital affiliated with a Modern Medicine teaching institution in a metropolitan city.

**Sample size calculation:**

The study conducted by Kumari *et al* [13] in Lucknow district, India, showed that overall satisfaction regarding a key outcome variable (doctor patient communication) was 60%. Using an appropriate formula for cross-sectional studies, the calculated sample size came to 92 [14].

$$n = Z^2 * P * (1-P) / d^2,$$

Where:

Z = the Z-score corresponding to the desired confidence level (95% confidence, Z = 1.96)

P = the estimated prevalence of satisfaction (60%)

E = the desired margin of error (10%)

Assuming 10% of nonresponse rate, which comes to be 10, final sample size was 102. Patient enrolment was done by simple random sampling from those

availing the Ayurvedic OPD services during the study period.

**Study population:**

*Inclusion Criteria:*

1. Individuals of either gender greater than 18 years of age.
2. Individuals who have availed of the Ayurvedic services more than once.
3. Those ready to give written informed consent and complete the study questionnaire.
4. Education level –Standard V or above.

*Exclusion Criteria:*

1. Patients unwilling to participate in the study.

**Study Duration:** 6 months

**Ethical considerations:** Institutional Ethics Committee approval was taken prior to study initiation [EC approval No. ECARP/2023/45 dated 21/04/2023]. The study was conducted in compliance with the various clinical research guidelines [Indian Good Clinical Practice (2001), Declaration of Helsinki (2013) and ICMR 'Ethical Guidelines for Biomedical Research on Human Subjects' (2017)] guidelines. Written informed consent was obtained from all the study participants.

**Study Procedure:**

Written informed consent was taken from patients who regularly attended the Ayurveda outpatient services of the tertiary healthcare hospital (more than once) and agreed to participate in the study. Data collection utilized a simple random sampling technique, ensuring a representative sample of individuals who had availed Ayurvedic services more than once. This approach aimed to capture a diverse range of experiences and opinions, contributing to a comprehensive understanding of patient satisfaction.

A structured questionnaire was administered to those patients who agreed to participate and relevant information was collected. The questionnaire consisted of two parts; the first part captured socio-demographic details like age, gender, religion, marital status, educational status, employment and socioeconomic status (categorized as per the updated BG Prasad's Socioeconomic Status Classification for the year 2023) [15]; the second part included the Patient Satisfaction Questionnaire (PSQ-18), [16] a freely available questionnaire for non-commercial use with proper citation, which assessed patient satisfaction with the Ayurvedic OPD services.

The PSQ-18 questionnaire is a comprehensive tool that assesses patient satisfaction through 18 items that are grouped into seven domains of patient satisfaction; general satisfaction (2 items - items 3 and 17), interpersonal manner (2 items - items 10 and 11), communication (2 items - items 1 and 13), technical quality (4 items - items 2, 4, 6, and 14), financial aspects (2 items - items 5 and 7), time spent with doctor (2 items - items 12 and 15), and accessibility and convenience (4 items - items 8, 9, 16, and 18). Each item was presented in a way that they were statements of opinion and the responses were rated on a 5 point Likert scale, from strongly agree, agree, uncertain, and disagree to strongly disagree. Some of the items were phrased such that agreement indicated satisfaction with health care, whereas other items were negatively worded such that the agreement indicated dissatisfaction with the health care. This questionnaire was translated to Marathi & Hindi languages and back-translated to English for use in the study.

#### **Measures taken to reduce bias:**

Only those patients who fulfilled the study's eligibility criteria were requested to participate in the study. To minimize selection bias, a random sampling technique was used of patients who had availed Ayurvedic services more than once to ensure that the sample selected represented the different types of patients. The questionnaire was administered uniformly by the study team, thus reducing potential observer bias. Also, the questionnaire was translated to the local languages so that the patients completed the questionnaire themselves reducing the responder bias and only those patients who regularly availed of the Ayurved services were asked to complete the questionnaire such that the risk of recall bias was minimized.

#### **Measures taken to handle missing data:**

It was decided that incompletely filled questionnaires would not be considered for data analysis. Only completely filled questionnaires would be taken further for analysis.

#### **Scoring system for the PSQ-18 questionnaire results:**

PSQ-18 generates scores across each of the seven different subscales; general satisfaction (2 items), interpersonal manner (2 items), technical quality (4 items), financial aspects (2 items), time spent with doctor (2 items), and accessibility and convenience (4 items). All items were rated on a five-point scale with higher scores indicating satisfaction with health care. After overall item scoring, items within each sub-scale were averaged to create 7 subscale scores for the individual domains such that high scores indicated satisfaction with health care facility, which is given in Table 1. Additionally, the level of satisfaction with

respect to the different domains of patient satisfaction was also calculated with the scale score representing the average for all items in that domain as presented in Table 2.

**Table 1: Scoring of different items of the PSQ-18 questionnaire**

Item numbers	Original response value	Scored value
1,2,3,5,6,8,11,15,18	1	5
	2	4

	3	3
	4	2
	5	1
4,7,9,10,12,13,14,16,17	1	1
	2	2
	3	3
	4	4
	5	5

**Table 2: Calculation of level of satisfaction in terms of different domains of patient satisfaction**

Domain	Items	Maximum possible score	Maximum mean/ Median	Level of satisfaction in percentage
General Satisfaction	3+17 (A)	10	5	$A/10*100$
Technical Quality	2+4+6+14 (B)	20	5	$B/20*100$
Interpersonal Manner	10+11 (C)	10	5	$C/10*100$
Communication	1+13 (D)	10	5	$D/10*100$
Financial Aspects	5+7 (E)	10	5	$E/10*100$
Time Spent with the Physician	12+16 (F)	10	5	$F/10*100$
Accessibility & Convenience	8+9+16+18 (G)	20	5	$G/10*100$
Overall Satisfaction	All 18 scales (OSAT)*	90	5	$OSAT/90*100$

\*OSAT: Overall Satisfaction

#### Data analysis:

Responses given by the study participants was entered in Microsoft Excel and analyzed using descriptive statistics. As the data was non-parametric (based on the Likert scale), analysis was done using Kruskal-Wallis test followed by Dunn's post-hoc test with Bonferroni correction for multiple group comparisons.  $p < 0.05$  was considered as the cutoff for statistical significance.

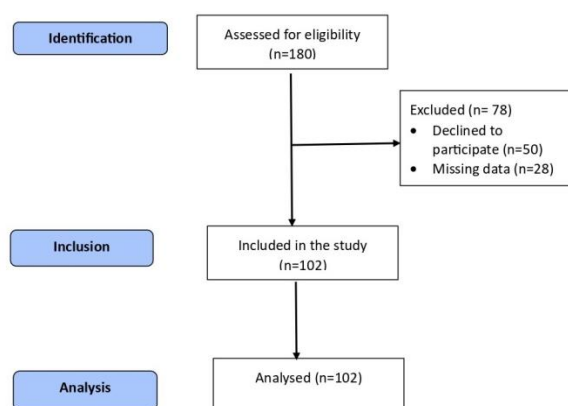
Multiple linear regression analysis was done to find out the relationship between overall satisfaction and other variables viz. age, gender, educational status, employment and socioeconomic status continuous dependent variable with other independent variables using GraphPad Prism version 10.

### 3. RESULTS

#### Patient Satisfaction levels:

130 patients of 180 patients (56.67%) visiting the Ayurvedic OPD over a period of 6 months agreed to participate in the study and completed the questionnaire. Of these 102 forms (78.46%) had complete information and hence was taken forward for analysis. The STROBE flow diagram showing the flow of patients is given in Fig. 1.

Figure 1: STROBE FLOW CHART



Analysis of the responses given by the patients showed that patient satisfaction was highest for Interpersonal manner (94.5%), followed by Communication (91.86%), Accessibility & convenience (90.84%), General Satisfaction (90.2%), Time spent with the Physician (88.62%), Technical Quality (88.52%) and Financial aspects (85.39%). Overall satisfaction was 90% with a median value of 9.0. The results are given in Table 3.

**Table 3: Distribution of study population according to their satisfaction scores for the Ayurveda OPD services at a public healthcare hospital (n = 102)**

Domains of Patient Satisfaction	Median (IQR)*	Satisfaction in percentage (%)
General Satisfaction	9.00 (1)	90.2

Technical Quality	18.00 (3)	88.52
Interpersonal Manner	10.00 (1)	94.5
Communication	9.00 (1)	91.86
Financial Aspects	9.00 (2)	85.39
Time Spent with the Physician	9.00 (2)	88.62
Accessibility & Convenience	14.00 (2)	90.84
Overall Satisfaction	9.00 (3)	90.00

\*IQR: Interquartile Range

### Demographic Characteristics:

Table 4 presents the average scores for seven domains of patient satisfaction, as well as overall satisfaction, in correlation with age, gender, educational level, socio-economic status, employment status, compliance, years of taking Ayurvedic treatment and the use of modern medication for other concomitant medical conditions. It was observed that majority of the patients attending the Ayurvedic OPD were in the age range of 46-60 years (51%) followed by 31-45 years (23%). The proportions of female patients were slightly more (57.8%) than males (42.2%). It was also seen that 68.6% of the study population were educated up to high school level followed by graduates (23.5%) with those with a post graduate degree being the lowest (7.8%). 48% of patients were employed versus those unemployed (52%). Most patients belonged to Socioeconomic Class V (30.4%), I (26.5%) and II (23.5%). Majority of the patients were compliant to Ayurvedic medications (70.59%). In fact, about 45.1% patients were availing of the Ayurvedic OPD services for upto 5 years, 26.4% more than 5 years and 28.4% for upto 1 year. 39.2% patients also consumed modern medicines for other concomitant

conditions viz. hypertension, hypothyroidism and diabetes in addition to ayurvedic medicines.

This table also, depicts the effect of the socio-demographic and other variables on the overall patient satisfaction score. It was seen that gender had no impact on the satisfaction score so also the socio-economic status with both men and women having similar satisfaction scores. In case of age, the satisfaction score in patients from the age group of 31 years and above was significantly good except in patients between the age group of 18-30 years.

Similarly, the satisfaction score was significantly good in patients with high school and graduate degree as compared to those with a post graduate degree. In case of the other variables like compliance and patients taking concomitant modern medicine, the satisfaction score was significantly high however, the score was low for patients attending the Ayurved OPD for less than 1 year and more than 5 years while it was significantly good for those attending the OPD between 1-5 years.

**Table 4: Distribution of study population according to sociodemographic variables and different domains of patient satisfaction (n = 102)**

Variables	Frequency (%)	Median (IQR)							Overall Satisfaction Median (IQR) 95% CI	p value
		General Satisfaction	Technical Quality	Interpersonal Manner	Communication	Financial Aspects	Time Spent with Physician	Accessibility & Convenience		
<b>AGE GROUP (in years)</b>										
<b>18-30</b>	5 (4.9)	4.50 (0.5)	4.25 (0.5)	5.00 (1)	4.50 (1)	4.50 (0)	5.00 (0.5)	4.33 (1)	4.44 (0.79) 3.85-4.96	p>0.05
<b>31-45</b>	23 (22.5)	4.50 (0.5)	4.50 (0.75)	5.00 (0.5)	5.00 (0.5)	4.50 (0.75)	4.50 (0.75)	4.67 (0.67)	4.52 (0.36) 4.34-4.58	p<0.01
<b>46-60</b>	52 (51)	4.50 (0.5)	4.50 (0.75)	5.00 (0.5)	5.00 (0.5)	4.50 (1)	4.50 (1)	4.67 (0.67)	4.52 (0.29) 4.43-4.59	p<0.001
<b>&gt;61</b>	22 (21.6)	4.75 (0.88)	4.75 (0.44)	5.00 (0.5)	4.50 (0.5)	4.50 (1)	4.50 (1)	4.50 (0.58)	4.65 (0.59) 4.36-4.68	p<0.001
<b>GENDER</b>										
<b>Male</b>	43	4.50 (0.5)	4.50	5.00 (0.5)	4.50	4.50 (1)	4.50 (1)	4.67 (0.67)	4.52	p>0

	(42.2 )		(0.75)		(0.5)				(0.30)	.05
									-0.2180 to 0.2180	
Female	59 (57.8 )	4.50 (0.75)	4.50 (0.5)	5.00 (0.5)	5.00 (0.5)	4.50 (1.5)	4.50 (1)	4.67 (0.67)	4.56 (0.45)	p>0 .05
<b>EDUCATIONAL STATUS</b>										
High School	70 (68.6 )	4.50 (0.5)	4.50 (0.75)	5.00 (0.5)	4.50 (0.5)	4.50 (1)	4.50 (0.5)	4.67 (0.67)	4.60 (0.41)	p<0 .00
									4.43-4.58	1
Graduate	24 (23.5 )	4.50 (1)	4.50 (0.75)	5.00 (0.5)	4.50 (1)	4.50 (0.5)	4.50 (1)	4.67 (0.67)	4.51 (0.49)	p>0 .05
									4.33-4.59	
Post Graduate	8 (7.8)	5.00 (0.5)	4.50 (0.31)	5.00 (0)	5.00 (0.5)	4.00 (0.63)	4.50 (1)	4.33 (0.25)	4.52 (0.33)	p<0 .00
									4.34-4.73	1
<b>EMPLOYMENT STATUS</b>										
Employed	49 (48)	4.50 (0.5)	4.50 (0.75)	5.00 (0.5)	4.50 (0.5)	4.50 (0.5)	4.50 (1)	4.67 (0.67)	4.52 (0.45)	p>0 .05
									4.47-4.63	
Unemployed	53 (52)	4.50 (0.5)	4.50 (0.5)	5.00 (0.5)	4.50 (0.5)	4.50 (1)	4.50 (1)	4.67 (0.67)	4.60 (0.37)	p>0 .05
									4.36-4.54	
<b>SOCIOECONOMIC CLASS (according to modified BG Prasad scale)</b>										
I	28 (27.4 )	4.50 (0.63)	4.38 (0.56)	4.75 (0.5)	4.75 (0.5)	4.50 (0.5)	4.50 (0.63)	4.67 (0.42)	4.48 (0.47)	p>0 .05
									4.39-4.55	
II	24 (23.5 )	4.50 (0.5)	4.75 (0.31)	5.00 (0.13)	4.50 (0.5)	4.50 (1)	5.00 (0.5)	4.67 (0.67)	4.60 (0.27)	p>0 .05
									4.45-4.63	
III	12 (11.8 )	4.50 (0.25)	4.50 (0.31)	5.00 (0.13)	4.50 (0.5)	4.25 (1.13)	4.50 (0.5)	4.67 (0.67)	4.58 (0.25)	p<0 .00
									4.31-4.70	1
IV	7 (6.9)	4.50 (1)	4.50 (0.63)	5.00 (0.75)	4.50 (0.75)	4.50 (0.75)	4.50 (0.5)	4.33 (0.33)	4.52 (0.29)	p<0 .00
									4.33-4.61	1

V	31 (30.4)	4.50 (1)	4.50 (0.75)	5.00 (0.5)	4.50 (0.5)	4.00 (1.25)	4.50 (1)	4.67 (0.67)	4.49 (0.49) 4.36-4.60	p>0 .05
<b>COMPLIANCE</b>										
Compliant	72 (70.59)	4.50 (1)	4.50 (0.75)	5.00 (0.5)	4.50 (0.5)	4.00 (1)	4.50 (1)	4.67 (0.42)	4.49 (0.53) 4.53- 4.70	p>0 .05
Non-compliant	30 (29.41)	4.50 (0.5)	4.75 (0.25)	5.00 (0)	4.75 (0.5)	4.50 (1)	4.50 (0.5)	4.67 (0.58)	4.65 (0.20) 4.38-4.53	p<0 .00 1
<b>NUMBER OF YEARS OF AYURVEDIC TREATMENT</b>										
<1 YR	29 (28.43)	4.50 (1)	4.50 (0.75)	5.00 (0.5)	5.00 (0.5)	4.50 (1)	4.50 (0.5)	4.67 (0.33)	4.52 (0.23) 4.42-4.56	p>0 .05
1-5 YRS	46 (45.10)	4.50 (0.5)	4.75 (0.75)	5.00 (0.5)	4.50 (0.5)	4.25 (0.88)	4.50 (1)	4.67 (0.67)	4.52 (0.54) 4.42-4.58	p<0 .01
>5 YRS	27 (26.47)	4.50 (0.5)	4.75 (0.38)	5.00 (0.25)	4.75 (0.5)	4.50 (1)	4.50 (0.75)	4.67 (0.67)	4.60 (0.32) 4.36-4.66	p<0 .00 1
<b>CONSUMING CONCOMITTANT MODERN MEDICATION</b>										
YES	40 (39.22)	4.50 (0.5)	4.50 (0.56)	5.00 (0.13)	4.75 (0.5)	4.50 (1.5)	4.50 (1)	4.67 (0.67)	4.60 (0.30) 4.40-4.57	p<0 .00 1
NO	62 (60.78)	4.50 (1)	4.50 (0.75)	5.00 (0.5)	4.50 (0.5)	4.00 (0.88)	4.50 (1)	4.67 (0.33)	4.52 (0.46) 4.45-4.60	p>0 .05

Data expressed as Median (IQR)

Between group comparison for multiple groups was done using Kruskal-Wallis test followed by Dunn's post-hoc test with Bonferroni correction

#### Multiple Linear Regression Analysis:

Multiple linear regression analysis was performed to determine the influence of the different variables viz. age, gender, education, socioeconomic class and employment status on overall patient satisfaction score (outcome variable). The results were checked

for residuals, normality and multicollinearity assumptions. All the normality tests had p values greater than 0.05, indicating that the residuals were normally distributed. The VIF (Variance Inflation Factor) for the variables tested [Age: 1.327; Gender: 1.407; Education: 1.185; Employment: 2.272 &

Socioeconomic class: 1.968] were all below 5 with the R<sup>2</sup> value also below 0.56 indicating that the variables were not highly correlated with each other and multicollinearity was not a concern in this regression analysis.

The overall model was not statistically significant (F(5, 96) = 0.94, P = 0.46), and the R<sup>2</sup> value (0.046)

indicated that only a small proportion of the variance was explained by the predictors. None of the individual variables were statistically significant (p>0.05). These results suggest that, in this sample, the selected demographic and socioeconomic variables did not significantly predict the outcome [Table 5]

**Table 5: Multiple Linear regression analysis showing relation of overall satisfaction with other variables**

Variable	Estimate	Standard error	95% CI	t	P value	R squared value
Age	0.001011	0.003019	-0.004947 to 0.006969	0.3368	0.737	0.046
Gender	0.005889	0.07300	-0.1369 to 0.1487	0.08187	0.9349	
Education	0.000327	0.07707	-0.0988 to 0.1032	0.006317	0.995	
Employment status	0.1589	0.1199	-0.02038 to 0.3382	1.759	0.0817	
Socio-Economic class	-0.03066	0.09069	-0.08230 to 0.02098	1.179	0.2415	

#### 4. DISCUSSION

##### Patient Satisfaction levels and Demographic Characteristics:

Patient satisfaction serves as a crucial indicator of healthcare quality and effectiveness. In this study, patient satisfaction with the Ayurved OPD services of a public sector, tertiary health care hospital was assessed using the PSQ-18 questionnaire. The overall satisfaction score was approximately 90% with a median score of 4.5. This level of satisfaction exceeds that reported in other similar studies by Holikatti *et al* [17] (55.3%), Chakraborty *et al* (73.1%) [18], Kumari R *et al* (64.6%) [13] and Snigdha SA *et al* (69.1%) from a Government Ayurvedic Medical College in Dhaka, Bangladesh. [19]

The domain of "Interpersonal Manner" received the highest satisfaction score (4.7255), indicating positive patient-provider interactions and suggesting that patients have positive expectations regarding the quality of interpersonal care and communication within the Ayurveda outpatient services. However, the lower score in the "Financial Aspects" domain suggests that there may be unmet expectations related to the affordability and financial aspects of the services, highlighting an area for improvement. A comparison with similar studies revealed that, all the domains (general satisfaction, technical quality, interpersonal manner, communication, financial aspects, time spent with doctor, accessibility, and

convenience) showed higher scores in our study. [13,16,17,20]

The demographic characteristics of the study population provide valuable insights into patient profiles accessing Ayurveda outpatient services. The predominance of women (59%) may be attributed to the OPD operating during daytime hours when many men may be at work. Most participants were educated upto high school level (70%) and belonged to socioeconomic class V (31%) according to the BG Prasad classification of 2023. The distribution of employment status revealed a dynamic wherein 58% of participants were unemployed, which could impact health access and overall well-being.

A look at the influence of the various sociodemographic variables on the Patient Satisfaction score revealed that those with a postgraduation degree had low satisfaction score as compared to those with lower degrees. However, there was no major effect of gender, age beyond 30 years, employment status and socioeconomic status on the patient satisfaction score implying that these variables did not influence patient satisfaction regarding the OPD services. Linear regression analysis also found no significant association between the overall satisfaction score and socio-demographic variables. These results are similar to that reported in other studies [17,18,21,22] however are opposite to the results obtained in other studies wherein it was observed that sociodemographic variables were predictors of patient satisfaction with hospital health care. [23-26]

The demographic characteristics of the participants, including gender distribution, education levels, employment status, and socioeconomic grades,

provide a foundation for understanding the interplay of these factors in shaping patient experiences and satisfaction with Ayurveda outpatient services. These findings have implications for targeted healthcare interventions, as they can help formulate tailored healthcare strategies to address the unique needs of diverse subgroups within the population.

Furthermore, the study identified that 72% of patients were compliant with Ayurvedic medication, with 62% not taking any other modern medication. Additionally, a significant proportion of patients received long-term treatment for chronic conditions, with 46% following up for 1-5 years and 27% for more than 5 years, indicating a high level of trust and satisfaction with the Ayurved OPD services. The quality of a medical service plays an important role in increasing patient attendance in the OPD, retention rates and maintaining patient loyalty.

Numerous studies have confirmed that higher patient satisfaction leads to increased patient loyalty. Satisfied patients are more likely to return to the same healthcare provider and facility, recommend the treatment to family and friends and spread positive word of mouth publicity and bring more value to the patient care services. Thus, positive patient satisfaction and loyalty reflect the level of service quality in health care services. [27,28]

The study revealed a mean age of approximately 54.03 years, indicating a balanced representation across various age groups, which serves as a robust foundation for examining health outcomes across different life stages. Notably, patients predominantly fell within the age group of 41-60, with the majority experiencing the disease for 1 to 5 years.

The findings also underscore the need for further research in several areas. The absence of significant correlation between patient satisfaction and socio-demographic variables contrasts with findings from other studies, suggesting the need for nuanced investigations. The study also identified areas for future research, such as investigating correlations between age group, disease duration, and specific diagnoses. Additionally, qualitative research studies should be done to understand factors influencing patient satisfaction and longitudinal studies to track changes in patient characteristics and satisfaction over time.

#### **Policy or healthcare delivery improvements:**

In today's rapidly evolving healthcare landscape, improving patient experience has become an essential focus for healthcare providers. Our study shows the patient satisfaction score was high in case of patients attending the OPD for a longer time period (more than 1 year). Some of the strategies that can be implemented in day-to-day OPD services to improve the satisfaction in all domains include:

1. Effective communication
2. Regular training of all staff members.
3. Reducing waiting time by scheduling prior appointments
4. Regular assessment of patient satisfaction through surveys, focus group discussions and other feedback mechanism
5. Analysing OPD data to identify trends and areas for improvement

#### **5. LIMITATIONS:**

The data collection was limited to the outpatient department of one hospital during working hours,

which may not capture the experiences of patients outside of these times. The study was conducted in a public hospital in a metropolitan city, which may limit the generalizability of the findings to other regions or types of hospitals. The study did not provide any compensation for the participants, which may have influenced their willingness to participate and potentially affect the outcomes. The observational nature of the study and the lack of examination into the physicians' attitude toward patients pose boundaries that ought to be addressed in future studies.

#### **6. CONCLUSION:**

Patient satisfaction at the Ayurved OPD within the tertiary healthcare centre illuminates numerous key aspects of patient satisfaction and healthcare delivery in Ayurveda settings. Overall, patient satisfaction trends indicate a predominantly positive experience within the outpatient department, albeit with notable areas of concern, specifically in the domain of financial aspects. Understanding and addressing these areas of dissatisfaction, including inadequate time spent with the Physician and perceived deficiencies in technical quality, are crucial for optimizing patient-centered care and enhancing overall satisfaction levels. The insights gleaned from this research provide valuable guidance for healthcare administrators and policymakers in formulating targeted interventions aimed at improving healthcare delivery within similar healthcare centers.

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