



DESIGNING AND VALIDATION OF SATMYA PARIKSHA SCALE (SP SCALE)

¹Sowrabha Bhat, ²Jotiram Maske Patil

1. 3rd year PG Scholar Dept of Kriya Shareera
2. Professor & HOD Dept of Kriya Shareera, SJGAMC, KOPPAL- 583231

Corresponding Author: sowrabhabhat33@gmail.com<https://doi.org/10.46607/iamj0112082024>

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ABSTRACT

Background: *Satmya* or compatibility refers to anything compatible with one's constitution following consistent and sustained use. People's compatibilities vary. One individual's compatibility may not be compatible with another. The physician must understand compatibility. This contributes to good treatment planning. Knowledge of *Satmya* (compatibility) and *Asatmya* (incompatibilities) in each patient helps the physician treat the disease thoroughly, organize the treatment correctly, and arrange the compatible diet for the patient. So, the study has been conducted to prepare for the *Satmya Pariksha* Scale. **Aim & Objectives:** The aim of the study is to Design & Validate the *Satmya Pariksha* Scale (SP Scale) in a sample of 30 healthy individuals. **Design:** A cross-sectional survey study **Methods:** The *Satmya Pariksha* Scale has been designed & validated by reliability & Validity tests like face validity, content validity & construct validity. The reliability analysed by the Cronbach's alpha coefficient, i.e .0.872 & KMO Bartlett's test value is 0.751. The Exploratory Factor Analysis used Kaiser's criteria for extracting factors with Varimax rotation. **Result:** *Satmya Pariksha* Scale. The study sample reproduced a similar structure of the original face, content, and construct validity, which met the standards. Internal consistency was excellent, with KMO Bartlett's Test value of 0.751 and Cronbach's alpha Coefficient of 0.872, which is highly significant. **Conclusion:** The *Satmya Pariksha* Scale is a valid & reliable instrument for assessing the level of *Satmya* in healthy individuals.

Keywords: Reliability, Validity, *Satmya Pariksha*

INTRODUCTION

Pariksha or *Pramana* is a means through which an individual gets a valid apprehension of an object.¹ The main aim of Ayurveda is to maintain the health of a healthy person & to treat the disease of the diseased one². This can be achieved with the help of different folds of *Pariksha*. According to *Acharya Charaka*, *Satmya Pariksha* is one among the *Dashavidha Pariksha*. *Satmya* refers to a substance that is beneficial to an individual, and its consumption results in the well-being of that individual. There are three types of *Satmya*: *Pravara* (Superior), *Avara* (Inferior), and *Madhyama* (mediocre). Another method of classification divides it into seven varieties based on administration of individual dual *Rasa* or tastes (six types) and using *Rasa* or tastes together. Individuals, for whom ghee, milk, oil and meat soup, as well as drugs and diet, having all six tastes are wholesome, are endowed with strength and the power to face difficult situations and attain longevity. Those who are accustomed to ununctuous things and drugs & diets having only one particular taste, are mostly possessed of less strength, less power to face difficult situations, are of smaller life span and of meager accessories like drugs for the treatment of the disease. If there is a combination of these types of homologies, the individual possesses moderate strength.³ One may have preferable choices not only with food but also with the taste of the food. Some may only like sweet foods, and some may like spicy and pungent foods. Some people may hate bitter taste & some people may add salt to each & every serving of food. This selectiveness of food deprives us of other tastes. Any particular taste taken in excess will aggravate *Doshas* in the body. Therefore, one should maintain a balanced taste in the food. If one taste tends to increase a particular *Dosha*, the other taste will

counteract & balance that particular *Dosha*. Thus, the examination of *Satmya* depends on analysing what kinds of food the person consumes and how many tastes the person is accustomed to. The more tastes the person is accustomed to, the more compatibility and better the quality and quantity of one's life and health. So, the *Satmya Pariksha* scale is essential for assessing the patient's strength before prescribing any therapeutics.⁴

MATERIALS AND METHODS

Designing the Satmya Pariksha Scale

Due to the dearth of tools for assessing the *Satmya* level and its importance for both disease treatment and health maintenance, a *Satmya Pariksha* evaluation questionnaire was developed. This was extensively searched for both printed and electronic versions of the *Charaka Samhita*, a reliable *Ayurvedic* source, and the *Lakshana's* of the *Satmya* were considered when developing the questionnaire.

Research questions: To design & validate the *Satmya Pariksha* Scale (SP Scale) based on the description of *Rasa Satmya* in *Charaka samhita*

Scale & Response Format:

The questionnaire was framed in a close-ended Likert format with four options for each question, i.e. Always, Often, Sometimes and Never. Always was graded as 3, often as 2, sometimes as 1, never was graded as 0.

VALIDITY

Face Validity

Verifying a tool's legitimacy by looking at the face is known as face validity. The questionnaire's face validity assesses Readability,⁵ Word clarity, Style & layout, & Feasibility. Face Validity is a sign that the questionnaire seems relevant to the topic & goal of the investigation. Although it is the simplest validation procedure to

carry out, its validity is the weakest. It assesses the questionnaire's look based on its viability, readability, formatting uniformity & linguistic clarity.⁶

Content Validation:

The content validation of any tool shows how closely each item in the tool corresponds to the concept being studied. It is usually tested using the qualitative technique. An examination of *Charaka Samhita's* references verified the information contained in the *Satmya Pariksha Lakshana* Questionnaire. To ensure that the selected variable & its measuring capabilities are a trustworthy way to ascertain the prevalence of certain *Satmya Pariksha Lakshana*, *Ayurvedic* experts also cross-validated the variable. Each *Ayurvedic* expert was handed a sheet that included particular elements from the *Satmya Pariksha* assessment questionnaire. They were asked to indicate the extent to which each variable applied to the determination of *Satmya Pariksha Lakshana's* dominance. It was noticed that the deduction was

made. A group of experts was formed. Finally, the first two levels of questions, rated four out of four, were collected for the study.⁷

Construct Validity:

To conduct a construct validity test, each question in the *Satmya Pariksha* assessment questionnaire was subjected to a cross-examination by a group of experts to determine the feasibility of the *Satmya Pariksha* Scale.⁸ The standard reference about *Satmya Pariksha* from *Charaka Samhita* was translated into ten questionnaires, & each question in the *Satmya Pariksha* assessment scale was subjected to a cross-examination by a group of experts to determine whether the *Satmya Pariksha* could be conducted using standard clinical methods, such as interrogation & inspection. All the questions were determined to be persuasive enough for their evaluation through questioning after KMO Bartlett's scale-assessed factor analysis test was conducted.⁹ The questionnaire is assessed with the following heading.

Rating	SP Scale Index
Pravara	21-30
Madhyama	11-20
Avara	0-10

RELIABILITY

Internal consistency

When measuring internal consistency, one usually looks at the correlations between various items on the same test or between the same subscales on a larger test. It assesses whether scores from multiple items that aim to measure the same general construct are comparable. Cronbach's alpha is a statistic that is typically used to quantify internal consistency. It is derived from the pairwise correlations between items. Each question's Cronbach's alpha ranges from 0.651 to 0.806, indicating a satisfactory level of internal consistency.

Factor Analysis

It is a general name for a set of techniques mainly used for summarizing & reducing data. Factor analysis is an interdependence technique that looks at a set of interdependent interactions without making a distinction between dependent & independent variables. Factor analysis should be used in the following scenarios. A new, smaller set of uncorrelated variables should be found in a future multivariate analysis to take place of the initial set of linked variables. Identify the underlying dimensions, or the elements responsible for the correlations among a data set. To replace the original collection of correlated variables in a multivariate study with a new, smaller set of uncorrelated variables. To reduce a considerable number of variables & choose significant variables for use in a subsequent multivariate study. To choose significant

variables from the Kaiser-Meyer-Olkin (KMO) measure of sample adequacy is used to evaluate the appropriateness of factor analysis; a result of 0.751 indicates that the analysis is adequate. It is a collective term for a group of methods mainly employed in data reduction & summarization. A technique for examining interdependencies that examines a set of interactions without differentiating between dependent & independent variables is factor analysis. The following situations call for the application of factor analysis: The original set of correlated variables should be replaced by a new, smaller set of uncorrelated variables discovered during a subsequent multivariate analysis. The original set of correlated variables should be replaced by a new, smaller set of uncorrelated variables discovered during a subsequent multivariate analysis. To identify the underlying dimensions, or contributing variables, that explain the relationships between a set of data to be utilised in a subsequent multivariate study, reduce a more extensive set into a smaller one.

RESULT

Face Validity

Table No: 1 (Showing the value of Cronbach's Alpha)

Reliability Statistics	
Cronbach's Alpha	N of Items
.872	10

Factor Analysis:

The KMO and Bartlett's Test Value is 0.751, and the P value is 0.000, which is highly significant.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.751
Bartlett's Test of Sphericity	Approx. Chi-Square	148.691
	df	45
	Sig.	.000

Table No: 2 (Showing the value of KMO and Bartlett's Test)

Descriptive Statistics

Item Statistics			
	Mean	Std. Deviation	N
QP1	1.7000	.83666	30
QP2	1.5000	.86103	30

The questionnaire was given to 30 healthy participants, and its face validity was evaluated in terms of word clarity, style & arrangement, and the probability that the intended audience would comprehend it. Every participant gave a satisfactory response.

Content Validity

Experts in the *Ayurveda* field reviewed the questions to ensure the content was valid. By distributing the prepared format to 30 healthy volunteers, the questionnaire's wording, layout, & style were evaluated. An expert group cross-examined the finalized *Satmya Pariksha* Scale to determine whether it should be evaluated using interrogation in a clinical setting.

Construct Validity:

The association between the various set of variables in the questionnaire was examined using factor analysis. A correlation matrix was created, and the study considered a KMO Coefficient greater than 0.6.

Reliability and Cronbach's Alpha

The internal consistency shows the Cronbach's Alpha value of 0.872, which is excellent & reliable.

QP3	1.4333	.93526	30
QP4	.7333	1.01483	30
QP5	1.8333	.91287	30
QP6	1.3667	.49013	30
QP7	1.4000	.62146	30
QP8	2.3667	.71840	30
QP9	1.1667	.64772	30
QP10	.6000	.67466	30

Table No: 3 (Showing the value of Descriptive Statistics)

DISCUSSION

A critical analysis of the primary *Ayurvedic* literature was conducted to explore these fundamental concepts fully. Most of the qualities described in the ancient writings are accurate today. A close-ended questionnaire was made after all of the Lakshana were gathered & transformed into questions. A four-point Likert scale was used to score these questions. The questionnaire was framed with the following things in mind. The topic under inquiry was found to be accurately reflected by the questionnaire, which was sent to subject experts for content validation. The clarity & ease of understanding of the questionnaire served as a means of verifying its face validity. *Satmya Pariksha* was found to be simply assessable using an interview method following ascertaining its clinical application. The analysis was found suitable when factor analysis was carried out using the Kaiser-Meyer-Olkin (KMO) criterion of sample adequacy. An internal consistency test using Cronbach's alpha revealed statistically significant findings.

CONCLUSION

The *Satmya Pariksha* assessment is a handy instrument in the analysis of the strength of the patient. This serves as a doorway to understand the individual's compatibility & incompatibilities. There is a significant lack of access to an individual's *Satmya Pariksha* assessment scale, which uses scoring to assess the strength of the individual depending on compatibility. This is my first attempt in this way. An interview with a person using this questionnaire will

act as a practical & objective *Satmya Pariksha* analysis scale.

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ANNEXURE: 1

DESIGNING AND VALIDATION OF SATMYA PARIKSHA SCALE (SP SCALE) INFORMED WRITTEN CONSENT

Name - M/F Age - Years

1. I confirm that I have read & understood the information for the study & can ask the questions.
2. I understand that my participation in the study is voluntary & I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.
3. I understand that the sponsors of the clinical trial are working on the sponsor's behalf, and the ethical committee and regulatory authority will not need my permission to look at my health records that may be conducted in relation to it, even if I withdraw from the trial. I agree to this access. However, I understand that my identity will not be revealed in any information released to a third party or published.
4. I agree not to restrict any data or results from this study, provided such use is only for scientific purposes.
5. I agree to take part in this study.

Name & Signature Name & Signature Name & Signature Witness volunteer investigator

Place:

Date:

DR. SOWRABHA BHAT

ANNEXURE: 2

DESIGNING AND VALIDATION OF SATMYA PAREEKSHA SCALE (SP SCALE)

Name: Age: Sex:

Address: Occupation: Phone No:

1. Do you consume ghee in your diet?
a) Never b) Sometimes c) Often d) Always
2. Do you consume milk?
a) Never b) Sometimes c) Often d) Always
3. Do you consume a diet rich in oil?
a) Never b) Sometimes c) Often d) Always

4. Do you consume Meat?

a) Never b) Sometimes c) Often d) Always

5. Do you consume a diet rich in Madhura rasa (Sweet taste)?

a) Never b) Sometimes c) Often d) Always

6. Do you consume a diet rich in Amla rasa (Sour taste)?

a) Never b) Sometimes c) Often d) Always

7. Do you consume a diet rich in Lavana rasa (Salty taste)?

a) Never b) Sometimes c) Often d) Always

8. Do you consume a diet rich in Katu rasa (Pungent taste)?

a) Never b) Sometimes c) Often d) Always

9. Do you consume a diet rich in Tikta rasa (Bitter taste)?

a) Never b) Sometimes c) Often d) Always

10. Do you consume a diet rich in Kashaya Rasa (astringent taste)?

a) Never b) Sometimes c) Often d) Always

TOTAL SCORE =

Never-0, Sometimes-1, Often-2, Always-3

Avara Satmya- 0-10

Madhyama Satmya- 11-20

Pravara Satmya- 21-30