

OBSERVATIONAL STUDY

A Study to Evaluate the Association of *Varna* in Healthy Individuals of Different *Deha prakriti*– An Observational Study

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ABSTRACT

Introduction: Humans are given beauty as a heavenly gift. Throughout the beginning of time, its significance has been understood and valued, and attempts have been made to conserve and advance beauty in all of its forms. Some of the factors outlined in *Ayurveda* that play an important part in determining a person's attractiveness include: (a) *Prakriti*, (b) *Sara*, (c) *Samhanana*, (d) *Varna*, (e) *Prabha*, and (f) *Chhaya*. These factors provide the aesthetic sense and essential basis of personality and beauty. Ayurvedic literature classifies seven types of *Prakriti* and characterized the skin color (*Varna*) on basis of *Prakriti*. There are many characters mentioned in *Samhita* for determination of *Prakriti*. Skin (*Twacha*) is one of criteria among them. This study has been undertaken to determine the association of *prakriti* and *Varna*.

Methods: The validated instrument CCRAS *Prakriti* assessment scale has been applied to assess the *Prakriti* and Fitzpatrick Scale to assess the *varna* of the individuals.

Results: Data of 125 patients aged 21–60 years have been analyzed. Most patients belonged to Pitta-Kapha *Prakriti* (36%). Individuals with their *Prakriti* found in order of frequency were *Vata-Kapha* (27.2%), *Vata-Pitta* (25.6%), *Pitta* (5.6%), *Vata* (4%), and *Kaphaja* (1.6%). According to *Varna* Data, 61 individuals (48.8%) were Type 4 skin complexion, 44 (35.2%) were Type 3 skin complexion, 13 (10.4%) were Type 5, and 07 (5.6%) were Type 2 Skin complexion.

Conclusion: Patients with *Pitta-Kapha* dominant *Prakriti* have been found less value of skin color index as compare to other *Prakriti*. This study concluded that *varna* is associated with *Dosha Prakriti*.

1. INTRODUCTION

Ayurveda holds that a person's general health has an impact on their skin, and it recommends a variety of skin care procedures that should be followed at every stage of life. Some of the factors outlined in *Ayurveda* that play an important part in determining a person's attractiveness include: (a) *Prakriti*, (b) *Sara*, (c) *Samhanana*, (d) *Varna*, (e) *Prabha*, and (f) *Chhaya*. These factors provide the aesthetic sense and essential basis of personality and beauty. *Prakriti* is pre-determined combination of *Dosha* decided at the time of conception. Ayurvedic literature classify seven types of *Prakriti*^[1] and characterized the skin color (*Varna*) on the basis of *Prakriti*.^[2] There are many characters

mentioned in *Samhita* for the determination of *Prakriti*. Skin (*Twacha*) is one of the criteria among them.

Acharya Charaka described *Prakriti* and *Vaikrita* skin color (*Varna*) and complexion. *Krishna*, *Shyama*, *Shyamvadata*, and *Avadaata* are *Prakriti Varna* and *Neela*, *Shyaava*, *Taamra*, *Harita*, and *Shukla* are *Vaikrita Varna*.^[3] A genetic factor is important to determine the individuals' basic skin color.^[4] Skin color (*Varna*) of an individual depends upon genes as per modern science. In *Samhita*, *Varna* (skin color) is developed from *Anna* (food) and *Agni* (digestion) and genetically from *Aatmaja* and *Satvaja Bhava* of *Garbha*.

Presently, due to changing lifestyle and increased stressful life, the majority of the population is suffering from skin disorders. *Prakriti*-specific advices may also be helpful in maintaining the physiological health of the skin. Skin (*Twacha*) is the mirror, which reflects the

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harmony of internal functions of the body. Any change in skin color (*Varna*) disturbs the patient both mentally and physically. Personalized beauty care or cosmetology is the future of skin care. Hence, this current study has been planned to evaluate the association of *varna* in healthy individuals of different *deha prakriti*.

1.1. Objective

The objective of this study was to identify association of *Prakrit* and *Vaikritvarna* in healthy individuals of different *deha prakriti*.

2. METHODS

2.1. Study Design

In this observational study of *prakriti* and *varna*, 125 individuals were recruited, regardless of gender or religion, to investigate the association of *prakriti* with *varna*. The study's inclusion criteria were (1) anyone of the age 21–60 years irrespective of sex, caste, religion, or socioeconomic status. The only four factors for exclusion from the study were (1) Any systemic disorders such as diabetes mellitus, hypertension, muscular dystrophy, or any chronic illness, (2) Individuals who were diseased in the past 1 month, (3) Non-cooperative during the study, and (4) Individuals having any addictions such as chewing tobacco, smoking, and alcohol consumption.

2.2. Setting

The current study was conducted at the All India Institute of Ayurveda, An Autonomous body under the ministry of AYUSH. The participants were assessed using a CCRAS *Prakriti* assessment tool and the Fitzpatrick Scale.

2.3. Variables

The criteria for this observational study include the CCRAS *Prakriti* assessment tool, which contains demographic details along with anatomical, physiological, psychological, and behavioral determinant of *Prakriti*. Other variable was for assessment of skin color index (*varna*) with the help of Fitzpatrick Scale.

2.4. Data Sources

The study's primary data came from (1) CCRAS *Prakriti* assessment tool; and (2) the Fitzpatrick Scale, which was used to examine the association of both variables.

2.5. Statistical Methods

Microsoft Excel was used to tabulate the demographic, clinical, and quantitative data for the research participants' evaluation. The categorical variables were measured using frequency and percentage. The parameters were statistically determined using the analysis of variance test and the mean and standard deviation were computed using appropriate software, with a $P < 0.05$ deemed significant.

3. RESULTS

A total of 125 study participants for the observational study were included in the study.

3.1. Subjects Characteristics

Table 1 shows the demographic data of the individuals. Table 1 shows gender, age, eating pattern, and body mass index (BMI).

3.2. *Prakriti* Based Differentiation

The results of this study revealed that *Pitta-Kapha Prakriti* and *Vata-Pitta Prakriti* were the most common *Prakritis* [Figure 1].

3.3. *Varna* Based Differentiation

The results of this study revealed that *Type 4* and *Type 3* were the most common skin complexion [Figure 2].

3.4. Association of *Prakriti* and *Varna*

According to the data [Table 2], *Prakriti* affects the *Varna*. The *Prakriti* of the person affected the skin color index.

4. DISCUSSION

In this study, we looked at the demographic profile along with an assessment of *balavridhdhilar Prakriti* and the skin color index of 125 patients from Delhi. We discovered that the majority of patients from *Pitta -Kapha* and *Vata Kaphaja Prakriti*. In terms of BMI, it was observed that maximum patients, that is, 66.4% were falling under the category of overweight, 32.8% were in the healthy weight category, 0.1% were falling in Class-I obesity. An energy imbalance between calories consumed and calories burned is the underlying cause of obesity.^[5] Obesity is caused by an increase in the consumption of foods that are high in calories but low in nutrients, as well as an increase in physical inactivity brought on by the sedentary nature of many occupations, shifting modes of transportation, and growing urbanization.^[6] The data corroborated the current study findings, which showed the participants' disturbed dietary and lifestyle viewpoints.

The study showed that the *pitta-kapha prakriti* individuals have more fair skin complexion as compared to other *prakriti*. *Pitta* and *Kapha prakriti* individuals are described as *sukumar avdatagatra*.^[7,8] means having fair and clear complexion. *Acharya Vagbhat* described *pitta* as *gaur varna*.^[9] According to the complexion, skin types may be categorized, and this is done depending on the amount of melanin in the skin. The higher the no. in scale more is the melanin content and the darker the skin. The lower the no. in scale, the more fair the skin.

Individual differences in skin tone are common and are mostly attributed to the existence of melanocytes, carotene, oxygenated hemoglobin, and local blood flow.^[10] Brown granules known as melanin are present in melanocytes, which are located in the deep basal layer of the epidermis.^[11] Melanin not only affects skin tone but also offers defense against sun exposure.^[12] The yellowish tone of the skin is partly due to beta-carotene, which is present in subcutaneous fat tissue. The palms of the hands and the soles of the feet contain the highest concentration of this chemical.^[13] Finally, the presence of oxygenated blood being carried by the arteries and capillaries is responsible for the skin's typical reddish color.

The data of the study also validated the same about *pitta* and *kapha prakriti* as described in ancient texts. This study may provide baseline values for the assessment of various skin disorders which hamper the skin complexion and beauty and the role of *Prakriti* in determining the best treatment plan to prevent and fight against various skin diseases.

5. CONCLUSION

The present observational study showed that the *Prakriti* and *varna* are correlated. This study explores the future of personalized cosmetology.

6. ACKNOWLEDGMENTS

Nil.

7. AUTHORS' CONTRIBUTIONS

All the authors contributed equally to the design and execution of the article.

8. FUNDING

Nil.

9. ETHICAL APPROVALS

The study not required ethical permission as it is an observational study.

10. CONFLICTS OF INTEREST

Nil.

11. DATA AVAILABILITY

This is an original manuscript, and all data are available for only review purposes from the principal investigators.

12. PUBLISHERS NOTE

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Table 1: Demographics of participants (n=125)

Characteristics	Percentage
Gender	
Male	48
Female	52
Age, y	
21–30 years	52
31–40 years	27.2
41–50 years	9.2
51–60 years	11.6
Diet	
Vegetarian	52.8
Mixed	47.2
Body mass index	
<18.5	00
18.5–22.9	32.8
23–24.9	66.4
25–29.9	0.8
30–39.9	00

Table 2: Effect of Prakriti on skin color index

Factor	Type	n	Mean	Standard deviation	F-value	P-value	Result
<i>Prakriti</i>	<i>Vataja</i>	05	4.4	0.54	7.076	<0.05	Sig.
	<i>Pittaja</i>	07	3.57	0.53			
	<i>Kaphaja</i>	02	2.5	0.70			
	<i>Vata-Pittaja</i>	32	3.9	0.61			
	<i>Vata-Kaphaja</i>	34	3.8	0.62			
	<i>Pitta- Kaphaja</i>	45	3.2	0.75			

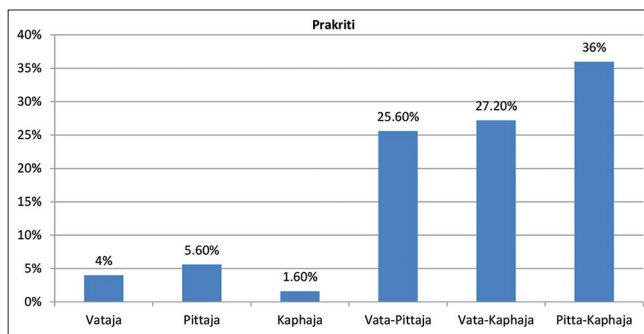


Figure 1: Prakriti based differentiation

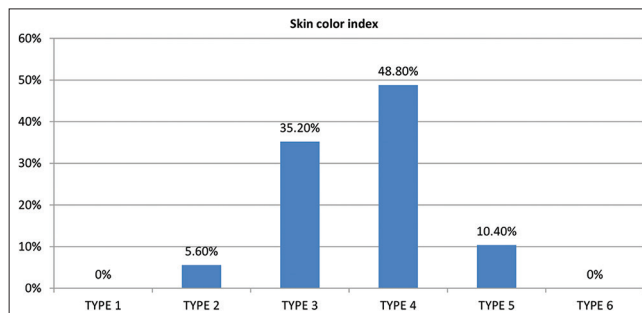


Figure 2: Varna based differentiation