

A STUDY OF THE STANDARD TOOL FOR *PRAKRITI* ASSESSMENT IN INDIGENOUS MEDICINE

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ABSTRACT

Prakriti (Psycho-somatic constitution of the body) is specific composition of humors (*dosha*) that is permanent throughout the life. The psycho-somatic type of an individual depends on the tribasic functional factor (*vata, pitta, or kapha*) that dominates in the reproductive elements sperm and ovum (*sukillam* and *sonitam*) during conception. A good knowledge of *prakriti* is essential for the treatment and management. Therefore, in the present study was developing the standard tool for *Prakriti* assessment based on considering several aspects of the body constitutions in Indigenous Medicine. It is a

Descriptive literature review related study was conducted from November 2011 to January 2012. Data were collected from the related past and recent Traditional text books and other documents from Jaffna/ Sri Lanka. *Prakriti* Assessment tool was developed by considering only thirty-three selected categories, and 60 subdivisions. This standard *Prakriti* assessment tool developed in this present study to be confirming the correct *Prakriti*. Hence, the developed assessment tool can be used not only in the health volunteers but also in clinical practices for the clinical validation.

KEYWORDS: Assessment, *Prakriti*, Indigenous Medicine, Standard tool, Study.

INTRODUCTION

Two systems of Medicine namely Allopathic and Indigenous are mainly practiced in Sri Lanka. In all the three indigenous systems (Ayurveda, Siddha and Unani Medicine) in Sri Lanka, plants play a major role and constitute the backbone of the system. Siddha Medicine is one of the traditional medicine and popular among the Tamil speaking people of Northern and Eastern Provinces of Sri Lanka. The word Siddha come from the word "Siddhi" which means an object to be 'attained' or 'perfection' or 'healthy bliss'. It generally refers to

Ashtama siddhi. Those who attained or achieved these powers are known as “*Siddhars*”. They were considered the greatest scientists in ancient times and were men of highly cultured, intellectual and spiritual faculties combined with super natural powers.^[1,2,3]

Everything in this universe is made of *Panchabootha* (basic five elements); earth (*mann/ piruthuvi*), water (*neer/ appu*), fire (*thee/ theyu*), air (*vazhli/ vayu*) and space (*vinn/ akayam*).^[4,5,6] As per Siddha system, man is regarded as the microcosm of universe and has all universal elements in his body.^[7] The *Panchaboothas* are present in the body in the form of Three humors (*tri doshas /uyuir dhathus*) such as *vata* (*valli*), *pitta* (*azhal*), *kapha* (*iyyam*); Seven basic tissues (*saptha dhathus / udat dhathus*) such as chyle (*saaram*), blood (*chenneer*), muscles (*oon*), fat (*kozhuppu*), bone (*enbu*), bone marrow (*molai*), and sperm / ovum (*sukkilam / suronitham*); and three excretory matters (*tri malas*) such as sweat (*viyarwai*), urine (*siruneer*), stool (*malam*). All these together make up the physical or material aspect of human. The three humors such as *vata*, *pitta*, and *kapha* constitute the fundamental concepts of Siddha Medicine. These principles are types of energy responsible for biological activity pertaining to the movement of the body, generation of the body heat and nutrition of tissues in the body respectively. Health is considered as the maintenance of equilibrium between three humors, while any disturbance or imbalance causes disease.^[8,9]

The word *prakriti* (Psycho-somatic constitution of the body) has varying meanings in different contexts e.g. equilibrium, health, nature, end stage of life, bodily constitution, etc.^[10,11] *Prakriti* is specific composition of humors (*dosha*) that is permanent throughout the life. Dominance and unchangeable nature of *dosha* are called as *Prakriti*. The constitution is called *Prakriti* in Sanskrit, a term meaning expression of the basic five elements in the constitution. The psycho-somatic type or *deka prakriti* of an individual depends on the tribasic functional factor (*vata, pitta, or kapha*) that dominates in the reproductive elements sperm and ovum (*sukillam* and *sonitam*) during conception. The term “*Prakriti*” signifies that which is normal or ideal. While the *vata, pitta* and *kapha* determine the characteristics of the body, the Sattva, Rajas and Tamo guna are said to influence the attitudes and behavior of the individual and commonly states that the *deka prakriti*, genetically determined during conception, does not change except in terminally ill patients.^[12]

Space, air, fire, water and earth, the five basic elements manifest in the human body as three basic principles or humors, known as the *tridosha*. From the space and air elements the bodily air principle called *vata* is manifested is called *vata dosha*. The fire and water

elements manifest together in the body as the principle called *pitta*. The earth and water elements manifest as the bodily water humor known as *kapha*.^[8,9]

The anatomical and the physiological components of the human being are constituted by these three humors. They act as basic constituents and protective barriers for the body in its normal physiological condition, when out of balance they contribute to disease process. The food and the individual actions nourish the humors and based on the predominance of a particular humor, the human body is constituted. Accordingly each person is classified as *vāta*, *pitta* and *kapha* person. The humors combine among them in seven types of constituents^[13,14]; they are *vata*, *pitta*, *kapha*, *vata-pitta*, *vata-kapha*, *pitta-kapha*, and *vata-pitta-kapha* (*mukutra / sannipatha*). One of the humors could be more and the other less in the seven constituents. Among these seven general types, there are innumerable subtle variations that depend upon the percentage of *vata-pitta-kapha* elements in the constitution.^[8,9,15] According to eastern theory, treatment (*chikitsai*) depends upon the *dosha* involved and physical state of the patient.^[15,16] Hence a good knowledge of *prakriti* is essential for the treatment and management. Supriya and Kishor mentioned in their study that, the recent advances in the fields of genomics, personalized medicine, and *Ayurveda* have motivated many researchers to look at the relationship between *Prakriti* and various objective biological parameters.^[17] Therefore, it was important to develop the standard tool for *Prakriti* assessment to ensure the psychosomatic constitution of the human. As a preliminary step towards achieving this objective, in the present study was developing the standard tool for *Prakriti* assessment based on considering several aspects of the body constitutions.

MATERIALS AND METHODS

Study Design

It is a Descriptive literature review related study.

Place and Duration of the study

Unit of Siddha Medicine, University of Jaffna from November 2011 to January 2012.

Data Collection

Data were collected from the related past and recent Traditional text books, websites, proceedings, research articles and other documents from Jaffna/ Sri Lanka in order to identify the relevant information's relevant to the for the *Prakriti* assessment tool. Most information's were obtained from the text books which were available in the Library/ Unit of Siddha

Medicine, University of Jaffna. For this purpose; 14 traditional text books such as *Thottakirama Arachchiyum*^[4] *Siddha Maruththuva Varalarum*^[3], *Siddha Maruththuvanga Surukkam*^[7], *Udalaththuvam*^[8], *Noi Nadal Noimudal Nadal Thirattu, Part I*^[9], *A Compendium of Siddha Doctrine*^[12], *Treatise on Ayurveda*^[16], *Siddha Maruthuvam (Pothu)*^[18], *Chikitsa Rathina Theepam*^[19], *Siddha Vaidhiya Patharththa Guna Vilakam*^[20], *Jeeva Ratchamirtham*^[21], *Agasthiyar 2000*^[22], *Siddha Maruththuvam thokuthi I varalaru*^[23] and *Yugi Vaidhya Chinthamani*^[24] were reviewed. According to the reviewed results, *Prakriti* assessment tool was developed based on the 33 categories and 60 subdivisions. The aim of this preliminary step to develop the assessment tool was considered as to record the time for tool assessment, able to understand questions, no repetitions, able to give answers and easy assessment.

Validation of the *Prakriti* Assessment tool: As a preliminary attempt to study the *prakriti* assessment, the developed assessment tool was administered and data were obtained from 10 healthy volunteers with their verbal consent and tested the reliability of the questionnaire. Based on results and suggestions received from the healthy volunteers, minor modifications were made to make the assessment tool more specific and standard.

RESULTS AND DISCUSSIONS

Table 1: Assessment of *Prakriti* (Psychosomatic constitution) of the Person.

No	Categories	Vāta	Pitta	Kapha	V	P	K
01	Body Build	Bony prominence	Just visible	Not visible			
		Superficial veins prominent	Slightly prominent	Not visible			
		Lean	Medium	Stout			
		Sub cutaneous fat less	Moderate	More			
02	Skin	Dry	Moist	Oily			
		Rough	Soft	Smooth			
		Dark / Brown	Pink blushed	Fair			
03	Body temperature	Warm	Hot	Cold			
04	Hair	Less	Moderate	Dense			
		Dry	Oily	Oily			
		Curly	Straight	Wavy			
05	Forehead	Narrow	Medium	Broad			
06	Eyes	Small	Medium	Wide			
		Dull	Penetrating look	Clear/ Gentle look			
		Off white	Red tinged	Whiter			
07	Nose & Sides of Nose	Slim, Narrow	Medium	Broad			
		Dry	Moist	Oily			
08	Lips	Narrow	Moderate	Broad			
		Dark	Red	Pink			

09	Teeth	Pale	Yellowish	White			
		Protuberance	Medium - with gap	Straight			
10	Tongue	Rough	Glossy	Smooth			
		Furrowed	Red	Pink			
11	Shoulder, chest	Narrow	Medium	Broad			
12	Joints	Protuberant	hidden	Compact			
		Noise on movements	Nothing specific	Strong			
13	Palms	Dry	Moist	Oily			
		Rough & Cracked	Reddish	Firm & Big			
14	Nails	Blackish	Reddish	White			
		Thin	Soft	Thick			
		Cracking	Flat	Convex			
15	Gait	Unsteady, Quick	Fast	Slow and Stable			
16	Muscles	Prominent calf	Loose/flaccid	Well built			
17	Physical activity	Very active	Moderate	Slow			
18	Mental disposition	Anxious /excitable	Aggressive	Calm, forgiving			
		Restless mind	Irritable	Affectionate			
		Difficult in taking decisions	Determined mind	Thoughtful decisions			
19	Memory	Observant but forgets	Sharp and clear	Good			
20	Speech & voice	Talkative / Fast	Moderate	Slow			
		Irrelevant speech	Clear	Gentle			
		Normal voice	Louder voice	Musical voice			
21	Sleep	Interrupted <6 hours	Sound sleep 6-8 hours	Sound sleep > 8 hours			
22	Sensitivity to weather	Sensitivity to cold & dry	Sensitivity to heat	Sensitivity to cold & damp			
23	Thirst	Medium	Maximum	Minimum			
24	Sweating	Scanty	More	Moderate			
		Medium odour	Strong odour	Minimum odour			
25	Hunger	Unpredictable	Good Cannot tolerate	Less Can tolerate			
26	Capacity to Ingest food	Erratic	Could ingest more	Moderate			
27	Capacity to digest food	Erratic	Excess	Moderate / low			
28	Food habits	Prefer sweet, sour salty & oily	Prefer bitter, astringent	Likes spicy, bitter, sweet, astringent			
		Likes hot food	Likes cold/warm food	Likes hot food			
		Eats much	Eats much	Eat slowly			
29	Urine	Pale yellow	Yellow/ red colour	Milky in colour			
		Less quantum & passed with efforts and sound	Hot and burning - sensation	Less in quantity with lot of foam/ froth			
		Passed in 24 hrs.	Medium	Maximum	Minimum		
30	Stool	Hard constipated	Soft and loose, unformed	Semi solid & Well formed			
		Stool number in 24 hrs.	One/none Dark	Two/ more Yellowish	two Amber / Pale		
31	Anger	Quick	Quick	Rarely			

32	Intolerance	Cold	Hot	Can tolerate cold, heat, hunger, anger, thirst and physiological urges.			
33	Problem facing	Worrying constantly Cannot take suitable decision	Can take bold decision	Can take right, firm decision Calm & stable mind			
	Total Ratio						

$$\text{Percentage of characters of one } dosha = \frac{\text{No.of characters present}}{\text{Total No.of characters}} \times 100$$

Percentage of *vata*

Percentage of *pitha*

Percentage of *kapha*

Table 1 showed that the developed *Prakriti* Assessment tool. It is categorized as *Vata*, *Pitta*, *Kapha*, *Vata-pitta*, *Vata-kapha*, *Pitta-kapha*, and *Vata-pitta-kapha (Mukkuutra) prakriti*. However, the *prakriti* was determined by considering only thirty-three selected categories given in the Table 1, namely body build, skin condition, body temperature, appearance of hair, forehead, eyes, nose & sides of nose, lips, teeth, tongue, shoulder & chest, joints, palms, nails, gait, muscles, physical activity, mental disposition, memory status, speech & voice condition, sleep, sensitivity to weather, thirst, sweating, hunger, capacity to ingest food, capacity to digest food, food habits, urine, stool, anger, intolerance, and problem facing. Further, those subdivisions are also support to confirm the correct *Prakriti* assessment.

This will be due to constraints in assessing (observation and examinations) all aspects in the chart among the subjects. Almost all subjects have scores for *vāta*, *pitta*, and *kapha*. Those with higher score for a *dosha* will be categorized as such (*vāta* or *pitta* or *kapha*). Whereas two *doshas* are equal in number, these will be categorized as *vāta- pitta* or *vāta- kapha* or *pitta-kapha* and three *doshas* are equal in number, which will be categorized as *Mukkuutra (vāta- pitta-kapha) prakriti*.

If the Traditional Physicians clearly know about the *Prakriti* of healthy persons, they can maintain the health and manage the disease condition properly. Hence, the developed assessment tool can be used in clinical practices for the clinical validation. This standard tool can be used before treatment, during treatment and after treatment for confirming the real *prakriti* between these treatment phases.

In clinical practices, the *Prakriti* Assessment tool is confirmed by the eight fold examination which will be determined by considering eight aspects such as, skin (temperature); body (colour, condition, smell & sweat); eyes (colour, size and vision); voice (nature of the speech); tongue (colour & taste); condition of pulse; stool (consistency and colour) and urine (colour, quantity, smell, froth & shape of the oil drop) examination of the subjects.^[8,9]

This present study assessment tool was can compared with the previous study conducted Renu Singh et al have reported that a comprehensive *Prakriti* Assessment Scale based on Ayurvedic texts has been developed and subjected to clinical validation.^[25] Modified *Prakriti* Analysis tool was developed and tested in 42 healthy volunteers for vata, pitta and kapha dosha variables by Sanjeev & Francesco.^[26]

CONCLUSION

This standard *Prakriti* assessment tool developed in this present study to be confirming the correct *Prakriti*. Hence, the developed assessment tool can be used not only in the health volunteers but also in clinical practices for the clinical validation.

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