Short Review

Concepts of body constitution in traditional Siddha texts: A literature review

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A B S T R A C T

Analysis of body constitution has been in practice in most complementary and alternative systems of medicine. Siddha system of medicine practiced in South India consists of fundamental classical literature that stress on the importance of tri-humoral makeup of individuals. Guidance has been given in the classics for identifying specific types of body constitution, various dietary recommendations and disease susceptibility. In validating such important traditional fundamental aspects, analytical systematic literature framework is the first robust step. The present study has been conducted to provide an updated integrative framework of information about body constitution given in various Siddha literatures in quantitative systematic method by using Whittemore and Knall’s five stage approach. This descriptive account may be useful to construct a suitable questionnaire for Siddha based udaliyal assessment.

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1. Introduction

Indigenous systems of medicine in India has been long playing its vital role in serving the public health in various parts of India and in recent times, all over the world. Siddha system is one of the six recognized streams of Indian systems of medicine. It is well received among the masses of South India. It resembles Ayurveda in certain aspects; there is a fine distinction between the two streams of medicine and have their own strengths. This study in to provide deep descriptive information on Udaliyal (body constitution/physique) features of Vali (Vatham), Azhal (Pitham) and Aiyam (Kabam) predominance as given in Siddha literature. This descriptive account may be useful to construct a suitable questionnaire for Siddha based udaliyal assessment.

2. Uyirthaadhu(tri-vital life forces) and Udaliyal

Siddha system rests on the conceptual framework formed by 96 thathuvams (philosophies) which includes Muthodam, Vayus, Panchabhootham, Gunam, Ragam, Kanmendhiriyam, Gnanendhiriyam. They connect the physical and inert energies of human body facilitating its existence at subtle and gross levels.

The Muthodam-Uyirthaadhu (synonymous with Tridosha) comprises of Vali (Vatham - Airy), Azhal (Pitham - Fiery) and Aiyam (Kabam- Watery/Cool). These three vital life forces govern the physical, physiological and psychological components of an individual thus forming the individual Udaliyal/Yakkai Ilakkam, - Body constitution. The 7 specific types of Udaliyal are classified on the basis of difference in the dominating levels of Vali, Azhal, Aiyam as per the genomic influences [1]. The Udaliyal types occur by various combinations, permutations of the three vital life forces. The signature of the dominant Thodam (Dosham) is apparent in the attributes of a person.

3. Need for Udaliyal

Siddha ideology of Udaliyal is portrayed through the information collected from ancient literature, and arranged in a concise format to identify the key aspects of the three Vali, Azhal and Aiyam influenced personality traits. It is a key to understand dietary allergies, pharmacokinetic variations, drug interactions and environmental hypersensitivities.
Table 1 Features of the Vati, Azhal, Ayiam (Vatham, Pitham, Kalam) Udaliyal as given in Siddha classical texts.

| S.no. | Parameters | Vati — vatham | Azhal — pitham | Ayiam — kalam |
|-------|------------|---------------|----------------|---------------|
| 1.    | General    | Heavy [3,8,9,16], dry, easily fatigable [7,8,10], easily enervating [7] | Moderate build tends to lose weight easily | Bulky, heavy, fatty, tends to gain weight easily |
| 2.    | Site [5]   | From perineum to umbilicus | From umbilicus to chest | From chest to top of the head |
| 3.    | Panchabotham [5] (principal element)(dominant) | Vayu (air) | Theyu (fire) | Appu (water) |
| 4.    | Dhathus [9,11,13] (seven body constituents) | Plasma (saaram) reproductive tissue (venneer) muscle (oon) fat (kozhuppu) bone (elumbu) reduced | Bone (elumbu) bone marrow (majai) muscle (oon) Reduced | Plasma (saaram) muscle (oon) fat (kozhuppu) reproductive tissue (venneer) bone (elumbu) increased |
| 5.    | Gunam [13] (psychological attributes) | Thamo | Rajo | Saathveeggam |
| 6.    | Pulse [3]  | Pulse [3,10] - slow, regular [12], gait of an elephant [8,16], like a ball [16], pulse like that of a woman [25] | Pulse- fast [8], exceeds the speed of a furling flag more than 1000 times [12], pulse is faster, trails like leech, turtle [19,24], pigeon, cock [24] | Pulse- irregular [3,12], weak of frog, eel [3,8], pounds like frog, snake [21,24] |
| 7.    | Weight     | Emaciates easily/becomes bulky [3,6,8,9] | Tends to lose weight with mild effort | Difficult to lose weight |
| 8.    | Temperature | Feels cold [3,7,8,15,22] in most places, in few hot & pulsatile [7,8,18] and dry | Feels hot [3,22] | Feels normal, cold [3,22] (sweaty) |
| 9.    | Fatigability | Easily fatigable after kinesis [7-10] | Variable in fatigability | Tolerates, feels strong |
| 10.   | Body parts | Nil | Nil | Nil |
| 11.   | Complexion | Dark [7,8,10,17,18,20] in complexion, easily sun tainted [16,22], dark [7] | Like that of Murugan (pinkish red) [7], yellowish/reddish/mixed [16,18,20,22], more on face, soles, palms, get wrinkles easily [21] | Like that of Brahmu [7], pale, whithish [16,18,20,22] |
| 12.   | Epidermal appendages [11] | Black hair splint ends (from dryness) Abundant [6,12], wavy, shiny dark [6] | Extensive dark moles, pimples | Abundant [6,12], wavy, shiny dark [6] |
| 13.   | Hair       | Black hair splint ends (from dryness) | Red tips of hairs [8], premature greying [6,12,13] | Clear, broad, bright, oily, shiny, sensual with bright long vision/pale-whithish скlera [16,18], rheum accumulates [16,22] |
| 14.   | Eyes       | Small [3,4], narrow, circular [16], watery, blackish [3,14,16,18] with thick eyelids [22] | Red/yellow/greenish [16,18] (bloodshot from hunger, heat, anger, alcohol), at the angle of the eye, thin eyelids burning sensation [16,22] | Clear pale whitish (not of much discomfort), reduced frequency of sex [12] more no. of offspring |
| 15.   | Ears [14]  | Wax in ears | Itching & burning sensation Yellow colored tongue, yellowish or reddish coated, sour taste [16,22] | Swelling & bleeding Frothy, thick sweetish taste with white coating [16,22] |
| 16.   | Tongue [18] | Clear tongue, if coated bitter/greyish, fissures with raised papilla [3,17,22] | Yellowish tongue [17] | White teeth [17] |
| 17.   | Teeth      | Dirty white/black/grey [16] | Dry, excessive [9] salivation [7,18], tongue | Small quantity of thick [7], dense saliva [17] |
| 18.   | Salivation | Watery [7] saliva | Yellowish tinge [17] | Hoarse, low - pitched mellifluous voice [16,17,20,22], hoarseness of voice [7] |
| 19.   | Voice      | Normal pitched voice [3,16,17,20] | High pitched/as though from well/ sharp [16,17,20,22], resembles voice from a well [7] | Sharpe, penetrative, speaks of valour/ distorted facts/don’t speak much/sweet words Can’t lie/no double speak/ warm & friendly speech/calm complacent words |
| 20.   | Speech     | Enthusiastic speech [6] before doing things, talkative, speaks as truth for victory & fame [12] sometimes unclear [24] speech | Sharp, penetrative, speaks of valour/ distorted facts/don’t speak much/sweet words | Moderate steady sexual desire/ abstinence from sex [12] more no. of offspring |
| 21.   | Food intake [13] | Most days without hunger/eats much but poor stamina | Eats little to moderate quantity | Eats good quantity of clean food |
| 22.   | Gaseous nature | Mostly gaseous [3,10] | Quickly reacts to gassy foods | Nil |
| 23.   | Taste and food priorities | Taste prior: sweet, sour, salt [13] hot foods; frequent | Sweet, astringent, bitter. Cold foods [13] | Bitter, astringent, pepperish. hot foods [13] feels satisfied even with small quantity |
| 24.   | Stools [16,22] | Mostly constipated [3,9,18], blackish tinged stools | Freely passing, yellowish tinged stools [16,22] | Whitish/pale colored stools, bulk/mucous [16,22] |
| 25.   | Body odor | Nil | Foul odor of sweat + | Oily odor of sweat + |
| 26.   | Body hair | Nil | Absence of body hair/very less quantum | Absence of body hair/very less quantum |
| 27.   | Urine odor | Nil | Little smell [3,10] | Obnoxious odor of urine [11] |
| 28.   | Sleep      | Frequent small mumps with half-closed eyes (premature ejaculation),variable sexual intensity, reduced frequency of sex [12]/ less number of offspring | Intense sexual desires [12] | Excessive/good sleep [9] |
| 29.   | Sexual desires | Frequent small mumps with half-closed eyes (premature ejaculation),variable sexual intensity, reduced frequency of sex [12]/ less number of offspring | More of a goal driven, success oriented, thoughtful [18] | Moderate steady sexual desire/ abstinence from sex [12] more no. of offspring/ |
| 30.   | Urine passage [4,17] | Small quantity of painful, blackish tinged urine passed with effort and sound [3,4,14,16,20], clear [22] | Pricking pain, burning sensations, reddish/yellowish [4,14,16] small quantity [21,22] | Clear pale whitish (not of much discomfort), dense, frothy [4,14,16,19,22], turbid [3] |
| 31.   | Dreams     | Dreams of walking in space, forest, mountains (kinetic dreams) [6] frequent dreams weaken body | Dreams of yellow/red flowering trees/ lightening, sun, gaseous, bright lit lamps (fiery dreams) [13] | Dreams of birds filled lily ponds, damp places like gardens (cool dreams) [13] |
| 32.   | Mindset    | Restless, unstable, hate, stingy, wanting to take other’s things not thoughtful of glory Interested in sports, massage, music, hunting (kinesis) [6,12] | More of a goal driven, success oriented, thoughtful [18] | Economically sound and happy in hoarding [6,11] |
| 33.   | Interests  | Restless, unstable, hate, stingy, wanting to take other’s things not thoughtful of glory Interested in sports, massage, music, hunting (kinesis) [6,12] | Scents, perfumes, garlands, sandal paste likes snow/self-nurturing, learning more books, new things, discrete fact from fiction (scholar), valor, might | Listening to good music, maintain cleanliness, scents-perfumes [6,12] |
Table 1 (continued)

| S.no. | Parameters | Vali – vatham | Azhal – pitham | Ayam – kabam |
|-------|------------|---------------|---------------|--------------|
| 34.   | Intolerability | Intolerable to cold [9,11] | Intolerable to thirst, anger, hunger, heat and fear [5,11] | Intolerable to sun’s direct heat; intolerable to hunger, thirst, grief, fear, heat [9,11] |
| 35.   | Intellect | Dull, repeated thoughts about the same thing [6], learnedness | Tendency for erudite scholar, learnedness, intelligent, courageous, perseverant, disciplined, good discretion power [6] | More disciplined, intelligent, scholar, knowledgeable, is appreciated even by scholars, faithful, easily trusting [6] |
| 36.   | Memory [13] | Dunce memory | Good memory, quick learner but temporary memory | Excellent memory, slow but strong retention |
| 37.   | Childhood | Nil | Nil | Childhood phase – characterized by absence of much Crying, anger, harsh words, confusion, excessive thirst [13] |
| 38.   | Passion | Nil | Valor, hate, strength, philanthropy, respects elders, loving to others, caring to those who are dependent [6,12] | Spiritual, puritanism, pious, away from stealth and lies, loving, respect to elders, warm and caring and friendly, calm, complacent [6,12] |
| 39.   | Detest | Nil | Easily detests things, hot headed quick to lose temper [6,12] | Withstanding, tolerant to criticism, deep & stable faith [6,12] |
| 40.   | Bones & joints [13] | Cracking joint sounds present while walking | Less amount of muscles around joints and bones | Well lubricated, strongly, built joints well covered with muscles & fat |
| 41.   | Immunity to diseases | Nil | Three fourths strength and immunity present | Good strength and immune to diseases |
| 42.   | Walking | Nil | Nil | Slow and steady like that of an elephant [13] |
| 43.   | Neikuri [14] (oil on urine test) | Oil drop elongates | Oil drop splits into smaller drops | Oil drop scattered as a sieve |
| 44.   | Animals that share same qualities [13] | Dog, fox, camel, rat, hawk, crow, night owl | Tiger, bear, monkey, cat, snake | The Deities - Brahman, Sivan, Indiram, Varunam Animals – Male lion, elephant, horse, bullock, cow, kite, swan |
| 45.   | Frequent diseases [23] | Colic & gas problem (flatulence) | Gastritis & related problems | Bronchial related problems |

Udaliyal assessment becomes essential to premonitorily diagnose any vitiation of the three vital humors. For example, a miniscule level of Vitiation of Vali (Vatham) can be observed either through hyperpigmentation of the skin, hyperreactivity to stress or extreme fatigability.

Upon identifying Udaliyal, balancing of Uyirthaadhu (vital life forces), Sadaragni (digestive fire), Sapthadhathu (seven physical constituents), Malakriyai (excretory), Gnandriyam (sensory) and Anthakaranam (elements of mind) under the influence of Unavu (diet), Adudham (Medicines) and Seyal (behavior) maintains the state of Sugam (Health). While in Rogam (diseases), the choice of panacea and aspects are given in Siddha treatises.

Realizing the phenomenotypes and exploring the role of genomics through targeted interventions by traditional systems may help disease prevention efforts. This will promote the personalized approach of preventive care via Siddha system of medicine.

4. Review methods

The review of literature carried out is the systematic quantitative review of Siddha literature using Whittemore and Knaff’s five stage approach [1]; Problem Identification [2], Literature search [3], Quality appraisal [4], Data analysis and [5] Presentation of findings [2]. This method was selected because of its suitability in organizing large volumes of raw information from various sources into an organized format. This method ensures that the integrative literature review is done in a systematic manner. The extracted data can be compared item by item so that similar data can be categorized and grouped together.

5. Data sources

The traditional Siddha books including works of Theraiyar, Agathiyar were searched between June 2017 to April 2018 at Siddha Central Research Institute (SCRI) Library, Chennai. Keywords searched were: Udal, Udaliyal, Dhega illakanam, Yakkai illakanam and Pirakruthi. The books included were Agathiyar 2000, Theraiyar Kaapiyam, Theraiyar Vagadam, Theraiyar Maha Karisal, Pathinen Siddhar Nadi Nool, Angaadhi Paadham, Raja Vaidhya Bodhini to name a few. The sources were from original texts and compilations.

6. Features of Udaliyal as per Siddha Classical Texts

Although there is a striking similarity between the Siddha Udaliyal and Ayurvedic Prakriti, there are subtle differences between the conceptualization of Siddha Vali, Azhal, Ayam with that of Ayurvedic Vath, Pith and Kaph. The Predominant age of each vital humors tend to differ between the two streams, wherein Siddha the childhood is predominated by Vali (Vatham), adulthood by Azhal (Pitham) and senility by Ayam (Kabam) which is not so in Ayurveda. This difference guides the physiology and pathological aspects of the vital humors theory [26]. The primary objective of this paper is to bring out the identity of Siddha System of Medicine in presenting its own principles of Udaliyal (which though similar to Prakriti) as an important contribution of Siddha towards personalized treatment (Table 1).

7. Traits and domains

During the review, about 25 Siddha books provided moderate to strong evidence of information. The traits under domains were grouped together as they belonged to physical, physiological or psychological domain. The physical domain includes general, site occupied, thadhu, weight, body parts, complexion, eyes, ears, tongue, teeth and epidermal appendages, bones & joints, scalp and body hair. The physiological domain includes panchbhutham, nadi (pulse), temperature, fatiguability, salivation, voice, food intake, gaseous nature, stools, body odor, urine odor, passage of urine, immunity to diseases, walking pattern, neikuri (oil on urine diagnosis) and frequent diseases. The psychological domain includes gunam, speech, sleep, sexual desires, dreams, mindset, interests, intolerability, intellect, memory, childhood, passions, detesting things,
animals that share the same qualities, taste and food priorities. Thus, by quantifying the reviewed features in Siddha literature:

There are 45 characters in total. Physical, physiological and psychological domains have 14, 16, and 15 characters respectively.

Three major themes emerged from the analysis.

1. Assessing persons as Vali (Vatham), Azhal (Pitham), Aiya (Kabam) Udaliyal on traditional lines is possible through a validated tool that is user-friendly.

2. Physical, physiological and psychological domains emerged.

3. A comprehensive personality-based inventory (both self-addressed & physician examined) can be devised based on the items pooled from various sources (N = 45).

Regarding balance or imbalance of the three components of the Muthodam, two Vali dhecis will tend to differ in the percentage of Vali disposition. These changes are governed by the genomic influence (Amorphous forms of Vali, Azhal and Aiya during embryonic formation). These miniscule changes can be apprehended through Nadi-Sodhanai (Pulse diagnosis).

8. Limitations

Identification of any changes in Udaliyal with respect to third factors (eg. aging and environmental effects) cannot be ascertained through this approach.

9. Recommendations

By keeping the item review table as the source (Table 1), an Udaliyal inventory can be constructed through appropriate measures of validity, and reliability tests and confirmation by large scale field tests. Assessing the validated tool (Inventory) among large samples of population alongside measurement of clinical outcomes will enable public health researchers to justify the use of the tool.

10. Conclusion

A physician well acquainted with the traits of Udaliyal can clinically approach with treatments tailor-made to the patient alongside dietary, behavioral modifications which in itself helps to document the versatility of the Udaliyal in Siddha system through prospective cohort studies. Evaluating Udaliyal besides conventional diagnostics in analyzing the current physical, mental state of a person will bear fruits for his/her future course of health and disease prevention.

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Conflict of interest

None.

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