Chapter 6
Prakriti Analysis in Ayurveda: Envisaging the Need of Better Diagnostic Tools

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6.1 Introduction

Recent resurgence of traditional medicine (TM) has resulted in a renewed ubiquitous curiosity toward their fundamental constructs. Their clearer understanding and subsequent applications based upon evidences are the primary motive of this global curiosity. Ayurveda has responded well to these emerging global demands from TM by making a paradigm shift into its research priorities which now focuses more upon basic research besides the clinical ones [1].

Ayurveda as a major stakeholder among global TM practices proposes its unique pronature biophysical basis toward the understanding of health and disease. It identifies four *purusharthas* (spiritual, economical, sensual, and renounceable) as the primary objectives of a human life and foresees the enabling health as an essential mean to achieve those. Interestingly, despite of its appearance as a subjective science, Ayurveda stands to be a truly logical, systematic, and comprehensive health science encompassing the wider perspectives of an individual. *Charaka Samhita* defines Ayurveda as a science dealing with quality of life within philanthropic, misanthropic, pleasurable, and miserable modes of living (*Charaka Samhita Su.*1/41). Ayurveda deals explicitly with the materials and methods to intervene into the state of disease and health. A disease in Ayurveda is proposed to be an outcome of imbalance among the body constituents, viz., *dosha, dhatu*, and *mala*. This imbalance is depicted clinically through altered body functions. Disease management in Ayurveda, therefore, is intended to restore the balance of the inner milieu by regulating diet, lifestyle, and supplementation of naturally occurring compounds. A medical prescription from Ayurveda uniquely considers finer details of the patient and the disease to bring out a typical prescription suiting to individual requirements.

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Despite of its textual novelty, for want of objectively applicable tools, the fundamental constructs in Ayurveda could not be adequately utilized to raise a dependable and predictable health care. Recent global upsurge of TM, at this juncture, opens up the widening opportunities of critically evaluating Ayurvedic fundamentals for their dependability and reproducibility in health care for meeting the expectations of science [2–4]. Eventual to the global expectations, a few key fundamentals from Ayurveda, viz., *prakriti* and *tridosha* have come to a critical reappraisal for their better appreciation and subsequent utilization in health care [5–7].

Prakriti in Ayurveda is defined as an individual quality quantified in terms of *dosha* and determined by various innate variables expressing that *dosha*. *Dosha*, as progenitor to the idea of *prakriti*, describes physiological system specificity which regulates the physiological and in turn the anatomical expressions specific to human body. Dosha are categorized as *vata, pitta*, and *kapha* as per their principal activities and subsequently named together as *tridosha*. An individual *prakriti*, in turn, is a realization of predominant *dosha* activity in a person leading to its physical, physiological, and mental identity [6, 7].

For their omnipresence in principles and practice of Ayurveda, *prakriti* and *tridosha* come forward as central dogma in Ayurveda. Conceptually, the duo propose a greater understanding to disease etiology, presentation, and management and eventually offer help in evidence-based decision-making for personalized treatments [5]. Translating this concept into a dependable evidence for decision-making, however, still requires much work. Dahanukar and Thatte [8] have correlated therapeutic outcomes in certain conditions to the *prakriti* specifications of an individual [8]. Construct of *prakriti* has recently been correlated HLA alleles [9]. The same is also furthered by biochemical correlates and whole genome expression referring to the various *prakriti* types [10].

Irrespective to these recent scientific appraisals, a fair utilization of *prakriti* into the clinical practice still require a dependable, reproducible, and objective method to determine it. We, therefore, need to have a standard tool to determine *prakriti* unequivocally for its use in clinical practice.

6.2 Examining *Prakriti*: Are We Properly Equipped?

Adoption of unambiguous, reproducible, and universally applicable tools to generate evidence is a prerequisite to evidence-based decision-making [11]. *Prakriti*, for its conceptual and clinical importance to Ayurvedic health care, deserves a detailed yet determinant examination for its possible usage in clinical practice. In Ayurvedic practice, *prakriti* is examined in connotation to the *dosha*-related features available to an individual. This feature examination aiming at *prakriti* diagnosis is usually done through an interaction between patient and physician. To help the interview process and also to bring objectivity to the results obtained through such process, a symptom-based checklist (questionnaire) model is adopted. Most published Ayurvedic researches including many recent ones, requiring a *prakriti* examination,

Table 6.1 Conventionally used triple choice questionnaire model to make a *prakriti* diagnosis

Features	*Vata*	*Pitta*	*Kapha*
Skin	Dry	Less oily	Oily
Appearance	Nonpleasing	Less pleasing	Pleasing
Color of skin	Black	Copper	White
Hair	Less, dry, rough	Less, soft, white	Soft
Veins and tendons	More and superficially visible	Average and not visible	Not visible
Joints	Loose with crepitus	Loose with no crepitus	Compact with no crepitus
Walking speed	Fast	Average	Slow
Speech	Fast	Average	Slow
Sleep	Less, easily arousable	Average	Deep sleep

From PG Dept. of Sharir, State Ayurvedic College, Tulsi Das Marg, Lucknow
Only a few features are represented here in the table. The actual questionnaire contains 13 anatomical, 16 physiological, and 12 psychological features

adopted a similar *prakriti* examination approach to reach at its diagnosis. Ironically, a validation to any such method aiming at *prakriti* diagnosis has never been attempted in these studies. It is because of this reason, a *prakriti* diagnosis made through conventional methods is found to have substantial interrater variability in terms of quantitative estimation of *dosha* referring to ultimate *prakriti* diagnosis. Biostatistical quantification of *tridosha* [12], classification of human population on basis of HLA gene polymorphism and linking it to *prakriti* [9], and whole genome expression and biochemical correlates of extreme *prakriti* types [10] are few among recent studies aiming to explore the scientific basis of *prakriti*. Among these, Joshi [12] adopted a semiobjective questionnaire method utilizing a comprehensive list of 28 features referring to different *dosha* [12]. The study identified feature classes as important traits with variable expressions as per the *dosha* influence in an individual. Three possible expressions to every feature class were proposed referring to three major *dosha* classes: *vata*, *pitta*, and *kapha*. This *prakriti* analysis model, therefore, was a triple choice questionnaire model where each question represented a feature class and each choice represented a *dosha* category (Table 6.1). The ultimate *prakriti* diagnosis in this model is reached through an active–passive interaction between patient and physician to choose the most appropriate expression against selected feature classes. Numbers of expressions favoring individual *dosha* are then counted, and a proportionate *prakriti* is inferred by identifying the *dosha* which is most commonly expressed. Irrespective of its ease of application, this method, however, fails to recognize "*the phenomenon of absolute or differential expression of dosha*," a key characteristic of *prakriti* understanding in Ayurveda. It is important to understand that independent *dosha* may have an absolute expression of their own in a feature class which is not shared by other *dosha* or may have a differential expression by sharing the same feature class by other *dosha* too. *Dosha* are thereby expressed through a few shared and yet few exclusive features which are phenotypical expressions of their inherent properties or *guna* (Table 6.2). A compulsive search of expression for some *dosha* against some trait as is done in triple response model may therefore lead to an erroneous result. The argument of absolute or differential

Table 6.2 Cross and independent distribution of features among different *dosha prakriti*

Feature class	*Kapha*	*Pitta*	*Vata*
Face features	Yes	No	No
Skin features	Yes	Yes	Yes
Color of skin	Yes	Yes	No
Nutritional status of body	Yes	No	Yes
Appetite	Yes	Yes	No
Thirst	Yes	Yes	No
Bowel movements	No	Yes	No
Involuntary movements	No	No	Yes
Intolerance to heat or cold	Yes	Yes	Yes

"Yes" represents the features represented in individual dosha class
"No" represents the features not represented in individual dosha class

expression of *dosha* becomes more explicit when we reanalyze Table 6.1 for its application in *prakriti* diagnosis. In reference to the skin appearance, the first trait, an expression of dry, less oily, and oily skin is considered representative to *vata*, *pitta*, and *kapha*, respectively. Similarly for second trait, an expression of unpleasing, less pleasing, and pleasing appearance is considered representative to *vata*, *pitta*, and *kapha*, respectively. This is important to note that these feature classes are primarily expressed by *vata* and *kapha*, respectively, and any moderate expression of features is wrongly attributed to *pitta*, where these traits are actually not expressed. Ignorance to this important observation of *prakriti* description in Ayurveda, therefore, is supposed to give false quantitative values to different *dosha*. *Prakriti* examination by Patwardhan [9] succumbed to similar methodological pitfall where feature categories were identified and scaled to various *dosha* orders [9]. Prasher [10] adopted a similar process of *prakriti* analysis by opting multiple choice questionnaire, with each option referring to a property attributed to either of *vata*, *pitta*, or *kapha* [10]. Unfortunately, this pattern of *prakriti* evaluation remained prevalent in researches done so far in Ayurveda [13]. A recently developed software by CDAC is also not devoid of the similar pitfall of making a *prakriti* diagnosis [14].

A predetermination of feature class followed by search for their variable expressions and then the *dosha* preponderance is the prospective approach of making a *prakriti* diagnosis. A prospective approach, therefore, makes a *prakriti* diagnosis through compulsively selecting one among three variables from a feature class to determine either of the *dosha* prevalence. Incidentally, an unequal distribution of feature classes among dosha groups has given a way to craft artifact expressions to the places where they do not really exist. Meeting with a compulsive choice among a feature class to choose an expression to rate a *dosha* is supposed to give rise to false results due to mandatory reporting. Additionally, this is also noteworthy that in absence of a clear and convincing expression of features, common trends are to choose the modest options and to avoid the extremes. Therefore, a mandatory reporting does not necessarily infer positive features and instead may be an expression of the exclusion of others. This nonconviction when added with a compulsion to choose either of the available option is supposed to project false positive results in

favor of some specific *dosha*. *Pitta*, for instance, being moderate in its physical features, has the highest possibility of being represented as false positive. This postulation is also supported through the *prakriti* distribution pattern observed among the studied population in few of the recent studies [9].

6.3 Diagnosing *Prakriti*: The Retrospective Approach

Against the currently utilized prospective model of *prakriti* diagnosis based upon feature identification followed by their *dosha* linking, a retrospective approach promises for more. The later model primarily proposes *dosha* recognition through identification of their cardinal features and checking for their availability through a binomial questionnaire (Yes/No). Eventually, this approach gives an equal opportunity for every feature either refused or accepted on account of their visibility. A retrospective approach of *prakriti* diagnosis is advantageous over prospective approach on two important grounds. Firstly, it offers a clear yes–no choice for the specific features making their selection unambiguous. Secondly, it also offers a liberty to refuse a feature by the observer if it is not clearly observable. Both of these factors significantly lower the possibility of misleading inferences arriving due to symptom overlap and compulsive reporting inherent to the prospective approach.

Why *dosha* represents an unequal distribution of observable features? Ayurveda proposes the theory of *dosha* property (*guna*) to answer this. Every *dosha* is proposed to have some inherent properties called as *guna*, and explicit phenotypical features of an individual are proposed to be the manifestation of these properties. A retrospective approach of *prakriti* diagnosis offers to identify the link of *dosha guna* to their physical manifestation. Eventually, through this way, *dosha* predominance can also be visualized differentially in reference to the *dosha* properties responsible for this predominance. *Charaka Samhita* gives the lead to identify *dosha* properties through physical expressions leading to manifestation of *prakriti* (Table 6.3).

6.4 Objective Identification of the Features for *Prakriti* Diagnosis

Prakriti identification features as described in *Charaka Samhita* (Table 6.3), when revisited for their objective verification, have given rise to an interesting observation. This was observed that the enlisted features are easy to be categorized on the basis of their objective verifiability. A prospective feature categorization may be sought as (1) Objectively verifiable features requiring a direct observation by the physician. Examples to this category are the features associated with physical built, height, complexion, etc. (2) Nonverifiable features requiring an interrogation from the patient. This class is primarily represented by the features pertaining to physiological and psychological attributes of a person. (3) There can also be a group of

Table 6.3 *Dosha guna* and their manifestations

No.	*Guna*	Features	Method of examination
(A) *Kapha*			
1	*Snigdha*	• Oily body	Inspection
2	*Shlakshna*	• Smooth body	Inspection
3	*Mridu*	• Soft texture	Inspection
		• Fair complexion	Inspection
		• Good-looking face features	Inspection
4	*Madhur*	• Good sexual induration	Interrogation
		• More offspring	Interrogation
5	*Sara*	• Compact body	Inspection
6	*Sandra*	• Well-formed body parts (proportionate)	Inspection
		• Well-nourished body parts	Inspection
7	*Manda*	• Slow physical movements	Inspection
		• Slow conversation	Inspection
		• Slow eating	Interrogation
8	*Staimitya*	• Delayed (well-thought) beginning of actions	Interrogation
		• Cool temperament	Interrogation
9	*Guru*	• Slow walking speed	Interrogation
10	*Sheeta*	• Less appetite	Interrogation
		• Less thirst	Interrogation
		• Less sweating	Interrogation
		• Less prone to heat-induced discomforts	Interrogation
11	*Picchila*	• Compact joints (not prominent)	Inspection
12	*Accha*	• Pleasing face	Inspection
		• Pleasing complexion	Inspection
		• Pleasing voice	Inspection
(B) *Pitta*			
1	*Ushna*	• Intolerant to heat	Interrogation
		• Soft textured	Inspection
		• Fair complexion	Inspection
		• Increased presence of moles	Inspection
		• Good appetite	Interrogation
		• Good thirst	Interrogation
		• Premature graying and fall of hair	Inspection
2	*Tikshna*	• Voracious eater and drinker (eat good quantity in a time)	Interrogation
		• Good digestive capability	Interrogation
		• Sharp reacting, argumentative	Interrogation
		• Intolerant to discomforts	Interrogation
3	*Drava*	• Lax and soft flesh and joints	Inspection
		• Profuse sweat, urine, and stool formation	Interrogation
4	*Visra*	• Increased and bad odor from armpit, head, and body	Interrogation
5	*Katu*	• Less sexual capacity	Interrogation
		• Less no. of children	Interrogation
6	*Amla*	• Less sexual capacity	Interrogation
		• Less no. of children	Interrogation

Table 6.3 (continued)

No.	*Guna*	Features	Method of examination
(C) *Vata*			
1	*Ruksha*	• Dry body	Inspection
		• Poorly formed and poorly nourished body	Inspection
		• Dry, poor, interrupted, and unpleasant voice	Inspection
		• Reduced sleep	Interrogation
2	*Laghu*	• Quick but incoherent movements	Interrogation
		• Quick but incoherent appetite	Interrogation
		• Quick but incoherent speech	Interrogation
3	*Chala*	• Unstable joints and body parts (moves them while sitting)	Inspection
4	*Bahu*	• Increased number of visible tendons and veins on extremities	Inspection
		• Overtalkative	Inspection
5	*Shighra*	• Quick indulgence in some activity	Interrogation
		• Increased amount of anxiety	Interrogation
		• Quick reactions in the form of attachment, detachment, or fearfulness	Interrogation
		• Quick understanding and grasping	Interrogation
		• Less memory	Interrogation
6	*Sheet*	• Intolerant to cold (does not like)	Interrogation
		• Prone to cold-induced ailments (common cold, URTI)	Interrogation
7	*Parush*	• Rough hair, nail, body, foot, and hand	Inspection
8	*Vishad*	• Prominent body parts (as joints)	Inspection
		• Crepitus in joints while moving	Interrogation

The guna and their features displayed here are selected as per the classical description of Charaka Samhita, Viman Sthan chapter 8/96–98

mix features which can either be physically verified and or be interrogated for. Question regarding the physical movements, increased presence of moles, premature graying and fall of hair, and understanding and grasping skills are examples to this category. If we measure the ratio of physically verifiable features against those who require an interrogation, we find that *vata* and *kapha* features come mainly from physically verifiable group whereas *pitta* comes from the interrogation group (Table 6.4).

This simple observation may have an important bearing in its relation to *prakriti* diagnosis. Firstly, it argues for the need of developing measures for a dependable identification of verifiable features (Table 6.5). Secondly, this observation also gives us an opportunity to revisit the conventional thought about *prakriti* considering their three major classes as independently identifiable set of constitutional components. Being represented by increased amount of physically verifiable features, *vata* and *kapha* presumably represent the morphological determinants of the body, whereas being represented by more nonverifiable features, *pitta* presumably represents the mental and metabolic determinants of the body. An implication of this observation, however, is yet to be ascertained.

Table 6.4 Objective classification of features in different *dosha* groups

Class of features	*Kapha* (%)	*Pitta* (%)	*Vata* (%)
Physically verifiable	65	20	64
Nonverifiable	37	86	54

Exceeds in percentage for some overlapping features

Table 6.5 Verifiable features for *prakriti* diagnosis and possible tests to verify them

Type of feature	Proposed test for verification
Body proportion	BMI
Complexion	Fitzpatrick scale, spectrophotometry, Von Luschan's chromatic scale
Skin moisture	Skinfold measurement
Skin fat	GSR

6.5 Developing a Standard Tool for *Prakriti* Diagnosis: What are the Primary Requisites?

To consider any diagnostic instrument as a help in clinical decision-making, most important is its validity and reliability. A content and construct validity, hence, requires a proper address in questionnaire-based models leading to *prakriti* diagnosis [15]. Furthermore, while constructing the questionnaire, ease of understanding, unambiguity, and application is also important. Once constructed, this can be cross-checked for its construct validity through observation of verifiable features by objective methods in parallel to the responses obtained through the questionnaire method. There are many postulated ways to an objective cross-check for verifiable features, and many more such ways can further be identified (Table 6.5).

Reliability of the *prakriti* diagnosis tool can be tested by subjecting the tool to reliability testing. A test–retest reliability is the one which is done by subjecting the same instrument to the same subject with a difference of few days. This test–retest reliability can further be strengthened by making an intrarater (when the repeat test is done by the same rater) and interrater (when the repeat test is done by some other rater) observations. The observations obtained can further be subjected to statistical methods like Pearson's correlation coefficient and Cohen's kappa coefficient of agreement to test them more critically.

6.6 Diagnosing *Prakriti*: What Could Be the Prototype Standard Model?

By visualizing the limitations of the existing methods of *prakriti* diagnosis, and also by identifying the basic requisites of making a standard tool to generate evidences, we can propose a prototype tool addressing the concerned issues. Considering the *prakriti* description based upon the properties of individual *dosha* type, a *prakriti* analysis questionnaire (PAQ) model can be prepared which essentially looks for the

clear presence or absence of features. An arbitrary numerical value can be provided to each response obtained in order to get cumulative ratio of each *dosha* featured in an individual subset (Table 6.6). A liberty to accept or reject any feature in this proposed model eliminates the crux of compulsive reporting and consequent false-positive or false-negative inference in favoring or declining some particular *dosha*. The tool can further be verified through cross-testing the verifiable features and also through reliability testing, as discussed above.

6.7 Conclusions: Way Ahead for *Prakriti* Diagnosis in the Twenty-First Century?

Why do we need an evidence base to Ayurvedic practice? Do we still require an evidence base for a health-care practice which has proven its effects through historical evidence of its practice? These commonly raised arguments referring to the research needs in Ayurveda are required to be analyzed in relation to extended benefits of putting contemporary evidence base to the practice of Ayurveda, primarily for a prospective better health care and secondarily for enrichment and eventual growth of Ayurveda as a true science. Advantages of bringing evidence base to a medical practice are obvious, tangible, and numerous. This ultimately aims to deliver the advantages of rigorous researches in the field of medicine for the best possible patient care. A decision-making in medical practice shall therefore take the account of every possible and relevant information available which can make a change in the intervention aiming at ultimate betterment in proposed outcomes. An evidence base is therefore required to be adopted at every level of health-care practice from diagnostics to the therapeutic decision-making. Ayurveda too require a similar and thorough work to bring out an evidence base to its diagnostics primarily to support its fundamentals upon which a decision of therapeutic intervention can dependably be made.

Prakriti examination for its conceptual importance to Ayurvedic clinical practice requires effective and reliable tools of diagnosis, without which, it remains unable to offer any help in therapeutic decision-making in Ayurvedic practice. A prototype PAQ for *prakriti* diagnosis, hence, is proposed after a prudent analysis of limitation of existing models in use and methods required to fill the gap. This proposed prototype model, however, still requires to be tested on various parameters to test its validity and reliability. Once pilot tested, and suggested for possible limitations, it can go for further revisions till it is finally approved or rejected. If arrived at approval in course of its study, it can serve the purpose of being a handy tool for physician to retrieve dependable information regarding the patient's *prakriti* and its possible utilization in consequent Ayurvedic health care.

Moreover, and in concert with the properties of Ayurveda related to the genomic characteristic of the patient, we also submit that future research in complementary and alternative medicine will elucidate molecular genomic, proteomic, and

Table 6.6 Prototype *prakriti* analysis questionnaire (PAQ)

No.	*Guna*	Features	Yes/no (scores)
Kapha trait			
1	*Snigdha*	• Oily skin (scratch the mid-flexor aspect of rt. forearm with some blunt object. If mark is visible, it is dry, if not it is oily)	60
2	*Slakshna*	• Smooth skin	60
3	*Mridu*	• Less tolerant to difficulties	20
		• Fair complexion	20
		• Good-looking face features	20
4	*Madhur*[a]	• Good sexual capacity[b]	30
		• More offspring (0–2 = no, 3 or more = yes, including abortions or stillbirth)	30
5	*Sara*	• Compact muscular body[c]	30
		• Stable body (almost consistent body weight)	30
6	*Sandra*	• Well-formed, proportionate body parts	30
		• Well-nourished body parts	30
7	*Manda*	• Slow physical movements	20
		• Slow conversation	20
		• Slow eating	20
8	*Staimitya*	• Delayed (well-thought) beginning of actions	30
		• Cool temperament (less anxiety)	30
9	*Guru*	• Slow walking speed	60
10	*Sheeta*	• Less appetite	15
		• Less thirst	15
		• Less sweating	15
		• Tolerant to heat	15
11	*Picchila*	• Compact joints (not prominent)	60
12	*Accha*	• Pleasing face	20
		• Pleasing complexion	20
		• Pleasing voice	20
Total score[d]			
Pitta trait			
1	*Ushna*	• Intolerant to heat	15
		• Soft textured	15
		• Fair complexion	15
		• Increased presence of moles	15
		• Good appetite and thirst	15
		• Premature graying and fall of hair	15
2	*Tikshna*	• Voracious eater (eat good quantity in a time)	18
		• Voracious drinker (drink good quantity in a time)	18
		• Good digestive capability	18
		• Sharp reacting, argumentative	18
		• Intolerant to discomforts	18
3	*Drava*	• Lax and soft flesh and joints	45
		• Profuse sweat, urine, and stool formation	45
4	*Visra*	• Increased and bad odor from armpit, head, and body	90

Table 6.6 (continued)

No.	*Guna*	Features	Yes/no (scores)
5	*Katu*[a]	• Less sexual capacity[b]	45
		• Less no. of children (0–2 = yes, 3 or more = no, including abortions or stillbirth)	45
6	*Amla*[a]	• Less sexual induration[b]	45
		• Less no. of children (0–2 = yes, 3 or more = no, including abortions or stillbirth)	45
Total score[d]			
Vata trait			
1	*Ruksha*	• Dry skin	30
		• Poorly formed and poorly nourished body	30
		• Dry, poor, interrupted, and unpleasant voice	30
		• Reduced sleep	30
2	*Laghu*	• Quick but incoherent movements	40
		• Quick but incoherent appetite	40
		• Quick but incoherent speech	40
3	*Chala*	• Unstable joints and body parts (moves them while sitting)	120
4	*Bahu*	• Increased number of visible tendons and veins on extremities	60
		• Overtalkative	60
5	*Shighra*	• Quick indulgence in some activity	20
		• Increased amount of anxiety	20
		• Quick reactions in the form of attachment, detachment	20
		• Fearfulness or timidness	20
		• Quick understanding and grasping	20
		• Less memory	20
6	*Sheet*	• Intolerant to cold (does not like)	60
		• Prone to cold-induced ailments (common cold, URTI)	60
7	*Parush*	• Rough hair, nail, body, foot, and hand	120
8	*Vishad*	• Prominent body parts (as joints)	60
		• Crepitus in joints while moving	60
Total score[d]			

Note: Scores in PAQ are arbitrarily assigned in assumption that each *dosha* has an equal opportunity to be represented in the body. This is how we reached at proposing equal score to each *dosha*. Total score for each *dosha* was then distributed among the number of classical *guna* available to each *dosha*. Each *guna* in a specific *dosha* category thereby arrived at having an equal score. An individual *guna* score in a *dosha* category was then further subdivided as per the available features against each *guna*. This kind of scoring has given a proportionate weightage to each *guna* and their features in every *dosha* for the ease of understanding about their individual and cumulative role in determining a *prakriti*

[a]Quantity of semen is deleted as a feature of *Madhur (Kapha)*, *Katu*, and *Amla (Pitta)* properties because of its inability to be identified precisely in males and inapplicability to females

[b]These features are specific to married people. For unmarried people, alternative questions are to be framed

[c]Physical features like compact body and musculature are to be judged in accordance with the gender and geographical standards

[d]Total score is 960 for each *Dosha*. *Dosha* scores in every individual are to be calculated as per their availability, and then a predominance may be determined

epigenetic biomarkers of the Ayurvedic states and traits described above, in a manner similar to what is noted in the case of pathologies such as HIV/AIDS [16] and cancer [17]. A panel of biomarkers carefully articulated in the same manner could come together "to vote" [17] for *prakriti* parameters and come to form the fundamental of evidence-based Ayurveda-driven clinical intervention. Notably, few recent works on *prakriti* have already started building the evidences to test this hypothesis [18, 19].

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