Comparative Study of Informant Consensus Factor for Ethno-functional Foods among Bhil, Meena, Garasia and Damor Tribes of Southern Rajasthan, India

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ABSTRACT Informant consensus factor (ICF) is a quantitative analytical parameter to evaluate degree of agreement among informant's knowledge and is important in sorting plants for their applicability. The present paper deals with homogeneity test of informant's therapeutic knowledge within tribal communities and neighboring tribes of the Southern Rajasthan. Ethno-medicinal survey of various tribal localities of study area reveals 135 therapeutic usages of 79 plants for 16 body system and 64 disease category/ ailments. Different plant parts are used for various therapeutic recipes. As study area is predominantly populated by Bhil, Meena, Garasia and Damor tribes. The comparative study of their therapeutic efficacy reveals high level of homogeneity in therapeutic practices in Bhil tribe for 66.66 percent disease categories as prescribed by WHO followed by Meena, Damor and Garasia tribe. Highest ICF (1.00) was obtained for ailments of digestive system from Damor tribe indicating précised practices and agreement among practitioners.

INTRODUCTION

Rajasthan is a state of cultural heritage and harbors various scheduled, denotified, nomadic and semi-nomadic tribes. According to 2011 census, the scheduled tribe (ST) population of Rajasthan constitutes 8.9 percent of the total ST population of India. These tribes are overwhelmingly rural as 94.6 percent of them inhabit rural areas whereas 76.6 percent of the total population live in remote forest localities. District wise distribution of tribal population shows that they have their highest residence in Banswara district (71.4%), followed by 65.1 percent and 46.1 percent in Dungarpur and Udaipur districts respectively.

Banswara, Bhilwara and Udaipur constitute Southern Rajasthan and harbor multiple tribes. These tribes port in various geographical areas of Aravallis among which the southern region forms the core territories of the Bhil and Meena tribes (Bhasin and Nag 2007). The minor tribes include Dhanka (Talvi, Tetariya, Valvi), Kathodia (Katkari), Naikda (Nayaka), Koli dhor (Tokre Koli, Kolcha), Pateliya, Dangi and Kokna (Kukni, Kukna) (Salvi 2012). These major and minor tribes are the custodians of local/indigenous knowledge and preserve a rich array of plant diversity.

Early documentation of medicinal folklore from southern Rajasthan includes work on general medicine (Katewa and Arora 1997; Katewa and Jain 2006; Sharma and Kumar 2011) or species specific while Swarnkar and Katewa (2008) enumerated tuberous plants. Among species specific work the pharmacological aspect of *Evolvulus* has been dealt by Singh (2008). On the same array Meena and Yadav (2010) reported *Tacca* sps with its usages. Community or specific tribe based studies are scarcely carried out in the Rajasthan except that of on therapeutic practices of Meena tribe by Meena and Rao (2010). Disease specific inventories of medicinal plants have been reported mainly in last decade. These inventories include therapeutic approach for liver diseases (Arora and Meena 2014), diabetes (Arora and Paliwal 2015), diabetic foot ulcer (Arora and Matiya 2017) or list of antimicrobial plants (Arora and Jain 2018). Despite of wide documentation from the study area, none of the study projects data in a quantified manner. The field studies and documentation of the ethnic therapeutic knowledge encompasses following drawbacks-

- Data retrieved through survey gets contaminated and deviated due to non continuous dispersion, linguistic and cultural ambiguity and mythological beliefs of the resourceful tribal men.

- The cultural manifesto has indulged through internet contamination and other non-scientific sources and hence questions informant's authenticity.
- Documentation of plant knowledge without mathematical expression does not reveals-
a. Number of plants deployed for a specific disease
b. Total number of uses of a specific plant
c. Importance and popularity of the plant species among tribe
d. Dispersion of therapeutic knowledge of plant uses among various tribes
e. Homogeneity of the traditional practices

Ethno-medicinal documentation needs to eliminate these flaws and validate data through numero-indices using quantitative analysis (Silva et al. 2006). In order to enhance the indicative value of ethnobotanical studies, there have been attempts to improve the traditional compilation-style approach through incorporating appropriate quantitative methods of data collection and interpretation. Among quantitative approaches informant consensus factor (ICF) aim to describe the variables quantitatively and analyze the observed patterns in the study, besides testing hypotheses statistically (Prance 1991; Heinrich et al. 1998).

Objectives

According to world health organization (WHO 2014) the application efficacy of traditional formulation can be recognized on two arrays, that is its application for an ailment and its application for body systems. Hence, in present study the documentation and its analysis were carried out using ICD 11. Comparative quantitative analysis through informant consensus factor among various major indigenous tribes of southern Rajasthan as Bhil, Meena, Garasia and Damor tribes can reveal the uniqueness of the medicinal lore usage in the study area. The present study was carried out with two aims-

1. To analyze the level of agreement among tribes with respect to the usage of functional food plants for various disease categories as described by Trotter and Logan (1986).
2. Intra-cultural and inter-cultural dispersion of uses of food plants for functional properties.

MATERIAL AND METHODS

I. Field Studies

Field studies were carried out from 2015 to 2017 with following aims-

1. Documentation of Ethno-functional

Food Plants

a. For the documentation of ethno-medicinal plants, field surveys were carried out all around the year from 2015 to 2017 in various tribal, rural and sub-rural pockets of southern Rajasthan (District-Udaipur, Dungarpur and Banswara).
b. For recording and documentation, field interviews were made from different practitioner's, that is ritual therapist, herbalist, grain diviner, priest and ancestral practitioner through local transcends to avoid language ambiguity and data was recorded in information retrieval form .
c. According to CBD guidelines prior informant consent (PIC) was obtained and inscribed for usage, dose, mode of dose, tenure/ time interval etc.

2. Authentication of Primary Data

a. In order to determine the authenticity of information collected during field visit, data was cross checked with published data of the same array and region. Data was also authenticated in criss- cross manner by interviewing other informants.

3. Preparation of Herbarium Sheets

a. Plant specimens were collected and herbarium sheets were prepared with all related information. Plants were identified up to species level through flora of region and prior work. Herbarium sheets were deposited in Department for further reference.

II. Analysis of Field Data

Field data was tabulated for following three factorials-
a. On the basis of informants report.

b. On the basis of therapeutic applications for body system.

c. On the basis of diseased specified for each application.

Documented data was categorized as per ICD 11 for the treated body systems while subcategorized diseases were assigned as per WHO and diseases signified by each tribe was noted for each disease category.

III. Informant Consensus Factor (ICF)

The Informant Consensus Factor (ICF) was used to analyze if there was an agreement in the use of plants in the ailment categories between the plant users in the study area, that is to test the homogeneity of the informant(s) knowledge according to the methods described by Trotter and Logan (1986). It also reveals intra-cultural and inter-cultural importance and validation.

The ICF was calculated using the following formula (Heinrich et al. 1998):

$$ICF = Nur – Nt / Nur – 1$$

Nur refers to the number of use-reports for a particular ailment category and Nt refers to the number of taxa used for a particular ailment category by all informants. The product of this factor ranges from 0 to 1. A high value (close to 1.0) indicates that relatively few taxa are used by a large proportion of the informants. A low value indicates that the informants disagree on the taxa to be used in the treatment within a category of illness or values will be low (near 0) if plants are chosen randomly, or if informants do not exchange information about their use. Values will be high (near 1) if there is a well-defined selection criterion in the community and/or if information is exchanged between informants.

RESULTS

Tribal communities occupying same ecological niches practice diversified protocols for their livelihoods although they share same floristic resources. Therefore, to evaluate amidst and cross cultural dispersion of therapeutic food plants applications, documentation was carried out by interviewing randomly various practitioner's as well as non- practitioners. Respondents were either native born or had been living in the region for at least 20 to 30 years. Informants

were selected on the basis of at least four independent recommendations on their erudition in this field. In the first phase 96 informants were selected for the survey. For the validation / authentication of informant, each informant was queried thrice after a defined time interval of 8 to 12 months for uses and each query was termed as an event. This information for a particular informant was tallied and mean was calculated for the three events. Care, however, was taken not to introduce hints which could affect or modify the answers. In second and third phases of field studies, information provided by 42 informants was found to be counterfeit and non significant. To get through right decision about disease, the symptoms described by the herbalists were discussed and confirmed with general physician of allopathic system of medicine.

During documentation disease were classified as per nomenclature provided by WHO under Beta draft of ICD 11. Survey of various tribal localities reveals no remedial food plant source for the diseases of eight categories of ICD 11 that is the immune system, mental, behavioral / neuro-developmental disorders, nervous system, visual system, ear or mastoid system, conditions originating in the perinatal period, developmental anomalies or factors influencing health status or contact with health services which indicates absence of food therapies for these disease whereas ethnic groups were more précised for therapeutic approaches related to diseases of digestive system as informants revealed uses of 30 food plants for 15 gut related diseases including boils, biliousness, cirrhosis, constipation, dyspepsia, gastric problems, indigestion, intestinal colic, intestinal inflammation, jaundice, liver tonic or complaints, mouth blisters, piles, stone problem and peptic ulcers followed by eight ailments of respiratory diseases. Among endocrine, nutritional or metabolic diseases 18 plants were cited for diabetes. Informants from Meena and Damor tribes agreed on citation for 15 disease categories but differed as informants from Meena tribes do not agree on functional food applications for sleep- wake disorders while informants from Damor tribe disagreed on usage of foods for neoplasms. The lowest agreement was observed among informants of Garasia tribe where informant agreed only for 58.33 percent (Table 1).

All informants of Bhil tribes had high degree of agreement (ICF-0.90) on diseases of the di-

Table 1: **Distribution of disease under body system categories as per ICD 11 and no of disease cited and species used for each category**

DCNICD 11	Disease category (Disease / No of plants used)	NOP	NOD
1.	Certain infectious or parasitic diseases (Diarrhea/1, Diphtheria/1, Dysentery/5, Gonorrhea /2, Leprosy/1 and Tuberculosis/1)	11	06
2.	Neoplasms (Tumor/1)	01	01
3.	Diseases of the blood /blood-forming organs (Blood purifier/3)	03	01
4.	Diseases of the immune system	Nil	Nil
5.	Endocrine, nutritional or metabolic diseases (Anemia /1, Diabetes/18, Goiter/1, Obesity/1 and Scurvy/2)	23	05
6.	Mental, behavioural / neuro-developmental disorders	Nil	Nil
7.	Sleep-wake disorders (Apnea/1)	01	01
8.	Diseases of the nervous system	Nil	Nil
9.	Diseases of the visual system	Nil	Nil
10.	Diseases of the ear or mastoid process	Nil	Nil
11.	Diseases of the circulatory system (High Blood pressure/2 and Low Blood pressure/1)	03	02
12.	Diseases of the respiratory system (Asthma/3, Bronchitis /2, Cold and cough /4, Pneumonia/1, Nasal bleeding /1, Throat infection or sore /1, Tonsillitis/2 and Whooping cough/1)	15	08
13.	Diseases of the digestive system (Boils/2, Biliousness /2, Cirrhosis/1, Constipation /3, Dyspepsia/1, Gastric problems /4, Indigestion/1, Intestinal colic /1, Intestinal inflammation/1, Jaundice/1, Liver tonic or complaints/2, Mouth blisters/1, Piles/1, Stone problem/7 and Peptic ulcers/2)	30	15
14.	Diseases of the skin (Demulcent/2, Eczema/1, Psoriasis/1 and Skin eruptions/1)	05	04
15.	Diseases of the musculoskeletal system or connective tissue (Arthritis/3, Bone fractures/1, Inflammation/3, Rheumatism/7 and Sprain/1)	15	05
16.	Diseases of the genitourinary system (Infertility/1, Kidney dysfunction/1, Leucorrhea/3, Dysmenorrhea/1, Dysuria/3 and Urinary infection/4)	13	06
17.	Conditions related to sexual health (Contraceptive /1, Sexual debility/3 and Impotency/2)	06	03
18.	Pregnancy, childbirth or the puerperium (Abortifacient/ 1 and Galactogogue/1)	02	02
19.	Certain conditions originating in the perinatal period	Nil	Nil
20.	Developmental anomalies	Nil	Nil
21.	Symptoms, signs or clinical findings, not elsewhere classified (Fever/1 and Flatulence/3)	04	02
22.	Injury, poisoning or certain other consequences of external causes (Insect bite/1 and Anti-worm/1)	02	02
23	External causes of morbidity or mortality (Typhoid/1)	01	01
24	Factors influencing health status or contact with health services	Nil	Nil

DCN- Disease category number; NOP- Number of plants deployed and NOD-Number of disease

gestive system, genitourinary system and morbidity or mortality whereas they differed in usages of plants related to diseases of the skin, musculoskeletal system or connective tissue and injury or poisoning ailments (ICF > 0.50) similarly Meena tribe informants agreed on same approach for infectious or parasitic diseases and endocrine, nutritional or metabolic diseases (ICF-0.86) and had low similar consent for disease of the blood/ blood forming organs, circulatory system and respiratory system . In Damor tribe the degree of agreement was maximum (ICF-1.0) for diseases of the digestive system and minimum (ICF-0.35) for diseases of

the blood /blood-forming organs while informants of Garasia community has maximum degree of agreement for disease related to digestive system (ICF-0.83) but had low agreeability for infectious or parasitic diseases, diseases of the circulatory system, skin and musculoskeletal system or connective tissue (Table 2).

DISCUSSION

Traditional food adjuncts have proved themselves through prolonged ancestral therapeutic paths and therefore form an important pave among tribes, without signalling any toxicity. Phyto-geo-

Table 2: Comparative study of Informant consensus factor (ICF) of ethno-functional food plants among Bhil, Meena, Garasia and Damor tribes from Southern Rajasthan

S. No.	Disease category /Body systems	ICF-1 (Bhil)	ICF-2 (Meena)	ICF-3 (Garasia)	ICF-4 (Damor)
1.	Certain infectious or parasitic diseases	0.86± 0.50[*]	0.86± 0.50[**]	0.14± 0.08[***]	0.43± 0.08[*]
2.	Neoplasms	0.78± 0.08[*]	0.57± 0.22[**]	0.00	0.00
3.	Diseases of the blood /blood-forming organs	0.76± 0.32[**]	0.35± 0.09[*]	0.57± 0.40[*]	0.35± 0.09[*]
4.	Diseases of the immune system	0.00	0.00	0.00	0.00
5.	Endocrine, nutritional or metabolic diseases	0.85± 0.55[***]	0.86± 0.10[*]	0.33± 1.39[*]	0.65± 0.15[*]
6.	Mental, behavioural / neuro-developmental disorders	0.00	0.00	0.00	0.00
7.	Sleep-wake disorders	0.70± 1.00[*]	0.00	0.00	0.65± 0.31[*]
8.	Diseases of the nervous system	0.00	0.00	0.00	0.00
9.	Diseases of the visual system	0.00	0.00	0.00	0.00
10.	Diseases of the ear or mastoid process	0.00	0.00	0.00	0.00
11.	Diseases of the circulatory system	0.74± 0.08[*]	0.33± 1.00[*]	0.14± 0.66[***]	0.57± 0.05[*]
12.	Diseases of the respiratory system	0.74± 0.08[*]	0.44± 1.05[*]	0.70± 0.69[*]	0.57± 0.05[*]
13.	Diseases of the digestive system	0.90± 0.08[***]	0.55± 1.15[*]	0.83± 0.66[*]	1.00± 0.15[*]
14.	Diseases of the skin	0.23± 0.15[*]	0.82± 0.14[*]	0.14± 1.55[*]	0.78± 0.10[***]
15.	Diseases of the musculoskeletal system or connective tissue	0.45± 0.07[*]	0.66± 0.80[**]	0.14± 0.10[**]	0.78± 0.10[***]
16.	Diseases of the genitourinary system	0.90± 0.19[*]	0.77± 0.20[***]	0.59± 0.10[**]	0.70± 0.33[*]
17.	Conditions related to sexual health	0.64± 0.23[**]	0.67± 1.11[*]	0.59± 0.10[**]	0.49± 0.13[**]
18.	Pregnancy, childbirth or the puerperium	0.67± 0.05[*]	0.84± 1.00[*]	0.29± 0.66[***]	0.51± 0.87[*]
19.	Certain conditions originating in the perinatal period	0.00	0.00	0.00	0.00
20.	Developmental anomalies	0.00	0.00	0.00	0.00
21.	Symptoms, signs or clinical findings, not elsewhere classified	0.47± 1.00[*]	0.80± 0.15[*]	0.42± 1.20	0.68± 0.08[*]
22.	Injury, poisoning or certain other consequences of external causes	0.35± 0.19[*]	0.78± 0.81[*]	0.52± 1.16[*]	0.65± 0.10[*]
23.	External causes of morbidity or mortality	0.90± 0.23[**]	0.62± 0.55[*]	0.77± 0.20[*]	0.77± 1.16[*]
24.	Factors influencing health status or contact with health services	0.00	0.00	0.00	0.00

Values are mean ± SEM and P [*]<0.05; [**]<0.01; [***]<0.001

graphically same flora is accessible to all local residents' tribes and therapeutic usages of this flora are practiced through ages. Therefore, it is expected that medicinal lore will have same application with same or different usage forms in local residents no matter belonging to different communities. One of the major beliefs prevailing among local custodians is to keep their therapeutic applications a secret as they believe that healing recipes fail to show their therapeutic potential if pronounced publically or shared widely. Informant consensus factor (ICF) is a quantitative parameter for the analysis of informant's knowledge and it's sharing among and within different ethnic communities and is important in sorting plants with bioactivity for specific ailments (Tardío and Pardo 2008).

The comparison of therapeutic efficacy reveals that informants from studied four tribes-Bhil, Meena, Garasia and Damor do not agree for the application of foods for their therapeutic applications for eight diseases from 24 diseases as prescribed by ICD 11 revealing agreement efficacy as 66.66 percent. Bhil tribe is more aware about therapeutic functional food system and informants agreed on the applications and uses of foods for 16 diseases categories from 24 categories of ICD 11. The zero value of ICF denotes that informants disagree regarding uses of plants (Andrade and Heinrich 2011).

The ICF value for digestive disorders among Damor tribe is one which indicates well-defined selection criterion in the community and/or if information is exchanged among informants (Upadhyay et al. 2011). Garasia tribe utilizes ethno foods for 14 diseases categories but the informants disagree for their applications and usage forms revealing lack of homogeneity in therapeutic wisdom among healers. This attribute is akin to the practices among communities of Dang

region (Sharma and Khandelwal 2010). Lack of homogeneity among practices within community can be due to many reasons among which continuous change in socio-economic structure and/ or migration of the communities is utmost (Hoffman and Gallaher 2007).

All the four tribes show more than 0.50 ICF values for disease related to digestive system, genitourinary system and morbidity/mortality revealing criss-cross cultural linkages. Bhil and Meena tribes resembled in their therapeutic practices for parasitic diseases, endocrine, nutritional and metabolic disorders and disease related to sexual health whereas Damor and Garasia differed for more than seventy percent disease category. In absentia of knowledge transfer among tribes, the food usage for specific ailments is restricted to some specific tribes while others do not use same (Romney et al. 1986; Lohar and Arora 2019).

CONCLUSION

Southern Rajasthan predominantly houses four major tribes which deploy many foods for therapeutic purposes. Informants used different foods for therapeutic purposes for immune system, mental, behavioral / neuro-developmental disorders, nervous system, visual system, ear or mastoid system, conditions originating in the perinatal period, developmental anomalies or factors influencing health status or contact with health services revealing lack of homogeneity in therapeutic applications. Among all the four tribes the informants of Bhil tribe shared their knowledge amidst healers and practitioners for fifty percent of the categorized diseases followed by Meena and Damor tribes. Informants consent among Garasia tribe was low showing lack of therapeutic homogeneity with diversified applications of food plants scoring low authenticity of informants. Damor tribe distinguishes its healing system as ICF values differed highly for maximum disease categories. Therapeutic applications of Bhil and Meena tribes were akin for three disease showing cross cultural therapeutic interaction and exchange of knowledge with respect to food plants applications.

RECOMMENDATIONS

The food plants applied for digestive system ailments by Damor and Bhil tribe and func-

tional foods used by Bhil tribe for genitourinary disease and morbidity and mortality should be clinically evaluated for pharmacopoeia as they are used since ages by nearly all the practitioners revealing a high score of authenticity and hence they can be promising safer drug with low toxicity.

REFERENCES

Andrade CA, Heinrich M 2011. From the field into the lab: Useful approaches to selecting species based on local knowledge. *Front in Pharmacology,* 2: 20-26.

Arora A, Jain S 2018. Ethnomedicinal documentation of antimicrobial plants from South East Rajasthan, India. *The Journal of Phytopharmacology,* 7(2): 203-206.

Arora A, Matiya J 2017. Quantitative ethno-medicinal studies of wound healing plants with reference to their hypoglycemic potential. *Adv Pharmacol Toxicol,* 18(2): 43-52.

Arora A, Meena J 2014. Ethnobotanical study of Hepato-protective / Hepato-curative plants used by ethnic communities of south-east rajasthan, India. *Indian J of App Res,* 4(6): 26-29.

Arora A, Paliwal V 2015. An inventory of traditional herbal medicines used in management of diabetes mellitus II by ethnic people of south-east Rajasthan (India). *Int J Pharm Sci Rev Res,* 30(1): 200-204.

Bhasin MK, Nag S 2007. Demography of the tribal groups of Rajasthan: 1. Population structure. *Anthropologist,* 9(1): 1-37.

Heinrich M, Ankli A, Frei B, Weimann C, Sticher O 1998. Medicinal plants in Mexico healers consensus and cultural importance. *Soc Sc and Med,* 47(11): 1859-1871.

Hoffman B, Gallaher T 2007. Importance indices in ethnobotany. *Ethnobotany Research and Applications,* 5: 201-218.

Katewa SS, Arora A 1997. Some plants in folk medicines of Udaipur (Raj.). *Ethnobotany,* 9: 45-51.

Katewa SS, Jain A 2006. *Traditional Folk Herbal Medicines.* Udaipur (Raj) India: Apex Publishing House.

Lohar M, Arora A 2019. Ethno-functional food studies of non-commercial fruits used by tribals of Southern Rajasthan (India). *J of Pharmacog and Phytochem,* 8(1): 2626-2630.

Meena AK, Rao MM 2010. Folk herbal medicines used by the Meena Community in Rajasthan. *Asian Journal of Traditional Medicines,* 5(1): 19-31.

Meena KL, Yadav BL 2010. "*Tacca leontopetaloides* (Linn.) O. Kuntze (Taccaceae) –A new record to the

flora of Rajasthan, *Ind J of Nat Pro and Res,* 1(4): 512-514.

Prance GT 1991. What is ethnobotany today? *J of Ethnopharmacology,* 32: 209-216.

Romney AK, Weller SC, Batchelder WH 1986. Culture as consensus: A theory of culture and informant accuracy. *American Anthropologist,* 88(2): 313-338.

Salvi LL 2012. Major tribes of Rajasthan and their economy. *Int Res and Rev*, 1: 69-70.

Sharma H, Kumar A 2011. Ethnobotanical studies on medicinal plants of Rajasthan (India): A review. *Journal of Medicinal Plants Res,* 5(7): 1107-1112.

Sharma L, Khandelwal S 2010. Traditional uses of plants as cooling agents by the tribal and traditional communities of Dang region in Rajasthan, India. *Ethnobotanical Leaflets,* (2): 9-11.

Silva D, Andrade LDHC, Albuquerque UP 2006. Revising the cultural significance index: The case of the Fulni-o in northeastern Brazil. *Field Methods,* 18(1): 98-108.

Singh A 2008. Review of ethnomedicinal uses and pharmacology of *Evolvulus alsinoides* Linn. *Ethnobotanical Leaflets,* 1: 100-104.

Swarnkar S, Katewa SS 2008. Ethnobotanical observation on tuberous plants from tribal area of Rajasthan (India). *Ethnobotanical Leaflets,* 1: 87.

Tardío J, Pardo DSM 2008. Cultural importance indices: A comparative analysis based on the useful wild plants of Southern Cantabria (Northern Spain). *Eco Bot,* 62(1): 24-39.

Trotter R, Logan M 1986. Informant consensus: A new approach for identifying potentially effective medicinal plants. In: NL Etkin (Ed.): *Plants in Indigenous Medicine and Diet: Biobehavioural Approaches.* Bedford Hills, NY: Redgrave Publishers, pp. 91- 112.

Upadhyay B, Singh KP, Kumar A 2011. Ethno-veterinary uses and informants consensus factor of medicinal plants of Sariska Region, Rajasthan, India. *J of Ethnopharmacology*, 133(1): 14-25.

WHO 2014. *Traditional Medicine Strategy* 2014-2023. Geneva: World Health Organization.