



Ethnomedical Practices of Parengi Porja Mothers: A Vulnerable Tribe in Eastern Ghats of Andhra Pradesh, India

Srividhya V. Samakya¹ and T. Subramanyam Naidu²

Department of Anthropology, Pondicherry University, Puducherry 605 014, India

E-mail: <samu.sri8@gmail.com>, <tsnaidu1952@gmail.com>

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ABSTRACT The Parengi Porja is a Particularly Vulnerable Tribal Population (PVTG), an aboriginal and small population inhabiting the Eastern Ghats of Andhra Pradesh, India. The objective of the study is to detail on the Parengi Porjas tribal mothers' ethno-etiology, ethno-symptomology, ethno-gynecological and ethno-obstetrics practices, and the timings of ethnomedicine intake which elucidates their ways of regaining health after childbirth and the illness episodes. The people also strongly believe in the concept of warding off an evil eye and the evil spirits which in turn help them in curing their illness. Twenty illnesses were classified into mild and severe, and five female-specific health related practices were analyzed. The findings of the study show that these practices are passing down from generations and are culturally acceptable, meaningful, and provide relief and care to the affected person at the earliest period. There also exists medical pluralism but in less extent as reaching modern medical facilities, requires time, transportation facilities, extreme climatic conditions as the region is prone to heavy rains and cyclones and also have language barriers with the doctors and nurses.

INTRODUCTION

Health and disease though claimed to be the subject matter of medical sciences, the history proves that the Social Sciences in general and Anthropology in particular, have contributed significantly in the development of medical knowledge of different societies from the 1930s (Bhasin 2007; Devarapalli 2007). Each society has a particular medical culture/medical knowledge called "ethnomedicine" which formed as a sub-field of anthropological research to study the culture's medical common sense or logic to construct the curative practices after understanding the illness causations (Quinlan 2011). This focuses mainly on the health and the social situations existing in the most of the societies. This had largely led researchers in the understanding of socio-cultural notions of health vis-à-vis causes of illness, the body, prevention, diagnosis, and treatment practices, which are all culturally interpreted during or after the field observation (Berkman and Kawachi 2000; Devarapalli 2007; Marmot and Wilkinson 2006). The prefix "ethno" seeks out primarily an "emic" anthropological view, that is, the perspective of a member of the culture being studied. These emic views are not easy for an outsider to come by

because they reflect developmental experience within a particular local framework. Interestingly, on other side, an emic system often takes an outside vantage to clarify its patterns of living. According to Quinlan (2011), ethnomedicine has two basic goals. First, it "examines the health-related knowledge and theories that people inherit and learn by living in a culture," which forms culture's medical dialogue to explain and treat their illnesses; Second is "medical translation" which helps to analyze the medical thinking of one group and to compare ideas cross-culturally for regional and global understanding. This knowledge of ethnomedical translation has become increasingly relevant for public health as it is applied to improve health care delivery among foreign, minority, tribal and underserved by identifying their beliefs and practices, and also informs alternative health practices for Western and other societies (Winch et al. 1996; Hahn 1999; Northridge and Mack 2002; Quinlan 2011).

According to WHO, nearly 80 percent of the population in developing countries rely on traditional medicine to respond to their healthcare needs (Faruque et al. 2019). In the present paper, the ethnographical data focuses on ethnomedical practices of Parengi Porja tribal mothers liv-

ing in North Eastern Ghats of Andhra Pradesh, India. Primarily, India has a long history of traditional health practices, which still exist among tribal communities and largely practiced by vulnerable tribal communities (Rajith et al. 2010). The Particularly Vulnerable Tribal Groups (PVTG) are socially and economically downtrodden but they harbour a lot of knowledge on medicinal plants and animals (Udayan et al. 2006). The ethnomedical system is highly practiced because they are socially and culturally adapted from generations and give great response to local views on illnesses and well-being (Chander 2014; Sargin and Buyukcengiz 2019). Indeed for a deep understanding of these linkages, it needs micro-level studies touching these areas and particularly requires special attention to understand health practices of vulnerable tribal societies (Rajith et al. 2010; Ramachandran 2001). The tribal communities have been able to perpetuate their age old traditional customs on the generations, as not to allow themselves to be swept away of their feet (Swain 1989). With this perspective, the present paper makes an attempt to understand the Parengi Porja tribal mothers' ethnomedical practices, which is a great way of achieving optimum health care from different illness episodes. Interestingly, they are found culturally bounded to each ethnomedicine for regaining health, which is understood through their explanation on the procedure of medicine preparation and mode of application.

Objectives

The objective of the study is to detail on the Parengi Porjas tribal mothers' ethno-etiologicals, ethno-symptomology, ethno-gynaecological and ethno-obstetrics practices and the timings of ethnomedicine which elucidates their ways of regaining health after childbirth and the illness episodes.

MATERIAL AND METHODS

The research for this paper was collected as part of doctoral study from April 2013 to January 2017. The anthropological field work was carried out in five hilly study villages (namely Vanagumma, Talabirada, Pathaliputtu, Labbur and Jappar) located in the Munchingiputtu man-

dal, Visakhapatnam district, Andhra Pradesh, India. There were 237 households in the study villages. The rationale for the selection of five study villages was first, they are situated in hilly region, which is a great source for collection of plant and animal based medicines; secondly, having a larger proportion of the Parengi Porja people. The three villages (Vanagumma, Talabirada, Pathaliputtu) were situated interior forests and rest of the villages (Labbur and Jappar) were situated near PHC sub-centers. Interestingly, it has been found that all the study villages are highly relying on the ethnomedicine than modern medicine, irrespective of their nearness to modern health facilities.

The People

The Parengi Porja is a Particularly Vulnerable Tribal Group (PVTG) classified by the Government of India based on their pre-agricultural level of the economy (hunting and gathering, shifting cultivators), low literacy rate and stagnant in population growth. The Parengi Porja predominantly lives in Munchingiputtu mandal in Visakhapatnam district, Andhra Pradesh. The region is situated in Eastern Ghats, which measures altitude of 910 meters above sea level, covered with the hilly slopes and cold weather. The weather and climate ranges 22° C to 35° C in summer (from months of mid-February– mid-May) and 12° C to 25° C in rainy and winter season. They are one of the sections of the Porja, who eats buffalo meat and speaks Gadaba dialect. The meaning of the suffix 'Porja' means 'son of the king' (Subramanyam 2008) and as per the people, the meaning of the prefix 'Parengi' is *Parengakocchu*, an aromatic plant with botanical name *Boswellia serrate* and the English name is Indian olinanum/sambrani/wild turmeric. Parengi Porja is an endogamous tribe with eight exogamous clans, namely *vanthal* (snake), *kilo* (tiger), *kimudu* (bear), *koda* (sun), *korra* (millet), *sunkri* (cow), *pangi* (eagle) and *vanu* (monkey). According to the 2011 census, the total population of Parengi Porja is 36,502. In this, 18,761 are females who outnumber the 17,741 males with the sex ratio of 1057 females per 1000 males (Ministry of Tribal Affairs 2013). When considering the total population of Parengi Porja in the villages under study, there are 898

individuals. And out of these 898, 476 are females and 422 are males with the sex ratio of 1127 females per 1000 males. They worship *pid-hordevatha* (ancestral deity), which is a major cultural characteristic to differentiate them from other sub-sections of Porja tribe.

Sampling

Purposive sampling procedure was followed in the selection of Anganwadi centers to know the beneficiaries especially to identify Parengi Porja tribal mothers. This had helped to select Parengi Porja settlements with random sampling procedure. A total of 236 mothers were selected using representative sampling under the criteria that they should have given birth to at least one child.

Data Collection Tools

The study is mainly based on primary source data collected from field work. Field work is the key activity in the anthropological research study of data collection. Both qualitative and quantitative anthropological research methods were employed to collect empirical data and the study is descriptive in nature. The qualitative anthropological methods like participant and non-participant observation, case studies, in-depth interviews and focus group discussions were employed in the collection of empirical data; and the quantitative anthropological methods include household surveys for collecting demography and semi-structured interview schedule on prevalence of diseases and types of treatments sought by the Parengi Porja tribal mothers. At first, semi-structured interview schedule was prepared and pretested and it comprised predecided themes on ethnomedical practices from tribal mothers and traditional healers. The intention behind this was to capture the prevalence of various diseases and illnesses among them. The researchers took nearly 30-45 minutes for filling up of the interview schedule in each household. The respondents are agricultural labourers hence the researchers lived in the study villages itself to reach each house during the early morning and evening hours for the collection of relevant data. The respondents were in a wide range between 17 and 80 years of age.

Data Analysis

After selecting the respondents, the qualitative method was employed by using in-depth interviews and five Focus Group Discussions (FGDs), involving 8 to 12 Parengi Porja tribal mothers in each group to understand the reasons for disease causation. The facilitator was an Anganwadi teacher and the moderators were both an Anganwadi teacher and a community health worker of respective villages, who were efficiently communicating with the people that helped to continue participant-participant discussion and brought different illness experiences and ethnomedicine taken for it. The researcher also recorded the conversations and data was written down soon after finishing FGD. The words like *daini* (blood sucking devil), *dumba* (devil), *devatha* (god), *chedipi* (witchcraft), *rogam* (illness), *jabbu* (disease), *desi log* (local people/hill people), *dhuka* (pain), *disari* (local medicine man), *gurumaini* (local medicine woman) and *paitiaachar* (traditions) are frequently pronounced words. But it is relevant to say that some people hadn't continued the conversation as they found difficult to converse. The case studies were collected from 30 respondents who were exposed to maladies and had delineated the personalistic and naturalistic attributes of maladies caused among them. Qualitative study "allows people to speak in their own voice rather than conforming to categories and terms imposed on them by others (Sofaer 1999). All the in-depth interviews lasted for nearly two hours, and each FGD took only about three hours and thirty minutes. Both interviews and FGDs were held in the native language of the respondents. Field notes were jotted down immediately following each interview and group discussion. The problems were viewed in both etic and emic perspectives of anthropological holistic approach.

Ethical Consideration

Permission from ITDA (Integrated Tribal Development Agency), Visakhapatnam, was obtained for conducting the study. The research objectives and methodology were explained to the respondents and verbal consent was obtained before starting the interview.

RESULTS

The present study has recorded demographic characteristics and valuable ethnomedical knowledge of Parengi Porja vulnerable tribal mothers living in an area almost inaccessible to outsiders because it is thick wooded region and red corridor area/terrorist area (place where ongoing conflicts between Naxals-Maoists and Indian government are evidenced). In such areas, the use of ethnomedicine is a common practice and locals are highly dependent on the native flora and fauna for their healthcare needs (Adnan et al. 2014). And also it is important to bring about the point of Han and Ballis (2007) that is 'economic development' is often positively related to the expansion of biomedicine. But the expansion of traditional or non-western medicine or tribal medicine has not always accompanied economic prosperity, as the medicine is available from nature safer than modern synthetic drugs, easy accessibility, the treatments are inexpensive and provides less side effects compared to modern medicine. These characteristics of ethnomedicine made the people widely use the medicinal plants and animals for healthcare management (Umair 2019).

Table 1 shows the socio-demographic profile of the Parengi Porja Tribal mothers. Out of 236 mothers, about 31.4 percent were between 50 and 80 years of age, 27.5 percent were between 20 and 29 years of age and there was 0.8 percent of adolescent mothers. The age at menarche shows that a majority of 68.2 per cent had attained between 'ideal phase' of menarche age, that is, between 13 and 14 years (Rokande and Mane 2008). The educational status demonstrates that a majority of 81.8 percent have no formal education; whereas under the formal education, 12.7 percent had studied up to upper primary (1 to 7th class) and a lowest of 0.4 percent had studied up to degree (10+2+3). Under the marital status, 75.4 percent were married followed by 25.8 percent were widows and a lowest of 5.5 percent were separated. In the age at marriage, a majority of 49.2 percent had got married between 16 and 20 years of age and 45.8 percent had married between 11 and 15 years. This illustrates that they experience sexual debut in adolescent age itself, and 5.1 percent had

Table 1: Socio-demographic profile of Parengi Porja tribal mothers

S. No.	Contents	Number	Percentage
1	No. of Parengi Porja Mothers	236	100
2	Age Group of Parengi Porja Mothers		
	<19 years	2	0.8
	20 to 29 years	65	27.5
	30 to 39 years	46	19.5
	40 to 49 years	49	20.8
	50+ to 80 years	74	31.45
3	Age at Menarche		
	10 to 12	63	26.7
	13 to 14	161	68.2
	15 to 17	12	5.1
4	Educational Status		
	No Formal Education	193	81.8
	Till Upper Primary (1 st to 7 th class)	30	12.7
	Secondary (8 th to 10 th class)	8	3.4
	Intermediate (10+2)	4	1.7
	Degree (10+2+3)	1	0.4
5	Marital Status		
	Married	178	75.4
	Separated	13	5.5
	Widow	61	25.8
	Got Second Marriage	18	7.6
6	Age at Marriage		
	Before attaining Menarche	12	5.1
	11 to 15	108	45.8
	16 to 20	116	49.2
7	Type of Family		
	Nuclear family with dependants	154	65.3
	Broken family with dependants	25	10.6
	Joint family	24	10.2
	Skipped Generations	11	4.7
	Single headed households	22	9.3
8	Household Income		
	Less than INR 3000	33	14
	INR 3001 to 6000	38	16.1
	6001 to 9000	53	22.5
	9001 to 12000	32	13.6
	12001 to 15000	23	9.7
	15001 to 18000	26	11
	18001 to 21000	18	7.6
	>21001 to 3,00,000	13	5.5
9	Illness Caused in Last One Year Period**		
	Mild Illnesses		
	Cough and Cold (Konkol)		
	Fever (Jara)	25	10.6
	Body Pains (Antadhuka)	41	17.4
	Eye and Ear Problems (Ankidhuka)	92	39
	Head Ache (Mundudhuka)	13	5.5
	Dental Carries (Daanthkeeda)	47	19.9
	Scabies (Kosukosu)	23	9.7
	Severe Illness	32	13.6
	Diarrhoea (Bondhad)		
	Dysentery (Rakothbondhad)	32	13.6

Table 1: Contd....

S. No.	Contents	Number	Percentage
	Fits (<i>Murcha/Kalpuras</i>)	6	2.5
	Tuberculosis	1	0.4
	Measles (<i>Kakkudu/Thattu</i>)	3	1.3
	Stomach ache (<i>Pet dhuka</i>)	1	0.4
	Mouth/Throat (<i>Thondegav</i>)	22	9.3
	Malaria (<i>Seethajara</i>)	4	1.7
	Body heat (<i>tikkon</i>)	76	32.2
	Jaundice (<i>Pacchakammerulu</i>)	48	20.3
	Cholera (<i>Vishajara</i>)	7	3
	Typhoid (<i>Vishajara</i>)	4	1.7
	Blood Pressure (<i>Dhaddhad</i>)	10	4.2
	<i>Ethno-gynaecological and Ethno-Obstetrics</i>	3	1.3
	Conception Problems		
	Home based Pregnancy Care	89	37.7
	Hospital based Pregnancy Care	236	100
	Complicated Deliveries	100	42.4
	Home based Postpartum Care	11	4.7
	Hospital based Postpartum Care	236	100
	Irregular Periods	13	5.5
	Menstrual Discomforts	27	11.4
	White Discharge/Itching in Genitals	24	10.2
	No. of Parengi Porja Tribal Mothers not affected with any illness	35	14.8
		30	12.7
10	<i>Sources of Treatment Practices</i>		
	Ethnomedicines	187	79.2
	ANM/CHW/AWW	153	64.8
	Government Hospital	85	36
	Private Clinics/Private Hospital	65	27.5

* (Parents attempted it for bride price) *Depe=Dependants

**Affected with Multiple illnesses

got marriage before attaining menarche (It was observed that the marriage before menarche was commonly practised by earlier generations, some 20 years ago). The statistics on the type of family shows that a majority of 65.3 percent was the nuclear family with dependants and 10.6 percent were broken family with dependants and a lowest of 4.7 percent were of skipped generation family (grandchildren living with their grandparents).

The household income per annum of the Parengi Porja shows that a majority of 28.8 percent of households were earning income of INR 9001 to 12000 and 22.5 percent were earning INR 6001 to 9000 and a lowest of 5.5 percent were earning between the range of 21,001 to 3,00,000

as they were working in different government sectors as Anganwadi teacher, government teachers, homeguards (Indian Paramilitary Police Force) and computer operators. With regard to the illness caused in the last one year period, under the mild illnesses, a majority of 39.0 percent had suffered from the mild illnesses; in this, 19.9 per cent had headaches and a lowest of 5.5 percent had suffered from eye pain and infections. Under the severe illnesses, a majority of 32.2 percent had suffered from malaria, 20.3 percent had experienced over body heat with the symptoms of reddish eyes, and burning sensation during urination, 13.6 percent had suffered from diarrhoea, and a lowest of 0.4 percent had suffered from fits and measles (Measles is said to be eradicated, but a woman of 45 years exposed to measles, as she had not vaccinated during her childhood though the concept of vaccination was introduced 30 years back). The source of treatment practices delineates that a majority of 79.2 percent had sought ethnomedical based treatment, 64.8 percent had sought treatment from ANM/AWW/CHW, 36.0 percent from government hospitals and a lowest of 27.5 percent had sought treatments from private clinics.

With regard to ethno-gynaecological and ethno-obstetrics practices, all 236 mothers (100%) were comfortable with home-based pregnancy and postpartum care, in which the former included food prescriptions and prohibitions and the latter included postpartum oil baths, body compressions with warm oil, and diet. But only 42.4 percent and 5.5 percent took hospital based pregnancy and postpartum care respectively that is, care from doctors and nurses like providing TT injections, calcium, Iron and Folic tablets. Following this, 37.7 percent of them had faced conception problems; 4.7 percent had complications during delivery such as entanglement of umbilical cord around baby's neck or hand or leg and disposition of baby's head from the birth canal which was eased with their own ethnomedical practice. And 14.8 and 11.4 percent of them had white discharge/genital itching and irregular periods.

DISCUSSION

Notions of healing are central to any system of medicine (Kirmayer 2004). How healing oc-

curs is conceptualized and practices are informed by the beliefs of the cultural milieu. Beliefs about the body and illness causation, together with societal norms concerning when, why and who to seek for medical help comprises one's "culture of medicine," or "ethnomedicine" (Quinlan 2011). The paper primarily focuses on the ethnomedical systems of the Parengi Porja tribal people which will delineate their illnesses and its aspects of causation and treatments. At first, Foster (1976) explained the *personalistic* (supernatural, wilful) and *naturalistic* (empirical) aspects of ethnomedical systems as the coexistence of empirical and magical models in medical systems. Personalistic aetiologies are defined as the intervention of an extra or supernatural force causing illness and the treatments can be sought only from the specialized shaman or spirit medium, who conducts healing ceremonies aimed at appeasing angered gods or spirits and also detects influence of witches or other shamans. Naturalistic causes are defined as the illnesses caused by the product of natural events or properties of natural environment such as micro-organisms or an imbalance of hot and cold humours in the body; treatments of conditions are likely to be pragmatic and empirical, which usually involve medicinal preparations of plant or animal substances prescribed by shamans, herbalists, physicians, and/or patients themselves (Waldstein and Adams 2006; Sargin and Buyukcengiz 2019). Like in the ethnomedical works of Cosminsky (1977), Buckley (1985), Chavunduka (1994), Ortiz de (1990), Snow (1993), Waldstein and Adams (2006), the Parengi Porja ethnomedical system is a combination of personalistic and naturalistic strategies which aid in treating illnesses of either aetiology.

In a related move, Kleinman (1980:49) explained the internal structures of ethnomedical health care systems, observing it as local cultural systems composed of three overlapping parts: the popular, folk, and professional sectors. The popular sector involves self-treatment or medicines given to a child by a parent; the folk sector involves folk/traditional healers (shamans); the professional sector includes specialists trained in formal medical schools (Biomedicine is a professional system but it is not the only one; even Ayurveda in India and Acupuncture in China have medical schools and are sponsored by the

government and respected by the people (if not more so) as biomedicine in these countries (Hsu 1999; Leslie 1976; Waldstein and Adams 2006).

The medical practices of particular populations may range from almost exclusively naturalistic such as Western biomedicine, to the almost exclusively personalistic, who (Dobu) consider even the smallest illness event to be caused by sorcery (Waldstein and Adams 2006). At large, the most populations appear to have a healthy mix of the two aetiologies. In many cultures, healing begins in the popular sector, especially if the patient is suffering from a minor, naturalistic affliction. At the same time, there is usually more than one type of folk healer in a medical system/culture and some folk healers use only naturalistic treatments (Huber 1990; Waldstein and Adams 2006). Even among the Parengi Porjas, some folk healers/local medicine men are regarded as experts on the herbal medicine (naturalistic), who collect from the forest only in the months of August, September and October as they are available in ample amounts.

Ethno-etiologicals, Ethno-gynaecological, Ethno-obstetrics, Ethno-symptomology and its Ethnomedical usage of Parengi Porja Tribal Mothers (Table 2 shows the list of the illnesses and ethnomedical treatments)

Every culture has their own concept of disease and illness and some specific ways of coping with it. People of traditional societies more or less ignore bodily symptoms of the disease but concentrate highly on oral explanation on illness which are believed to be caused due to evil spirits, breach of taboo, black magic, sorcery and environmental effects and exposures (Landy 1977; Waldstein and Adams 2006; Mishra 2011). Following this, ethno-symptomology encodes particular health concerns and provides consistent responses to them, which is the way of traditional societies' understanding of ethno-physiology, that is, how the body functions underlie popular beliefs about health and illness. Explanation of illness and its preventive and curative measures reflect the knowledge, culture value and medical tradition of a society (Medhi 1995), and the study of the disease causative concepts are called ethno-etiologicals. And also they can deal with their gynaecological and

Table 2: List of the illnesses and ethnomedical treatments

S. No.	Maladies	Ethnomedical formula (in vernacular names and English names of plants and animals)	Botanical/ Zoological names	Part used preparation	Medicine	Mode of intake
1	Cough and cold	Olidi (Turmeric)+ Pippala (Long Pepper)	Curcuma longa+ Piper longum	Tuber+ Fruit	This decoction is consumed for 2-3 consecutive days.	Oral ingestion
2	Fever (Jara)	Olisichikon (Niger oil) or Sorujadachickon (Castor oil)	Guizotiaabyssinica oil or Ricinus communis oil	Seeds oil	The body is smeared with either of these warm oils.	External application
3	Body pains (Gagoddhuka)	Eucalyptus leaves	Eucalyptus species	Leaves	Water boiled with these leaves are used in the bath	External application
4	1.Ear pain 2.Eye's pain/ Conjunctivitis	1. Losson (garlic)+ Olisichikon (Niger oil) 2. Crow's meat 3. kumuda sag	1 Allium sepa + Guizotiaabyssinica oil 2. Corvus splendens 3. Cucurbita species	1. Tuber+ seeds oil 2. Crow's meat/liver 3. Pumpkin leaves (Fig. 5)	1.The body is smeared with this warm oil popped with garlic cloves. 2. The fat extracted from the crow's meat then applied in the eyes 3. This green leafy vegetable is consumed on regular basis, until they recover from eye pain.	Internal application 1. Oil is poured into ears 2. Oil is applied in the corners of eyes 3. Food intake

Table 2: Contd...

S. No.	Maladies	Ethnomedical formula (in vernacular names and English names of plants and animals)	Botanica/ Zoological names	Part used preparation	Medicine	Mode of intake
5	Dental carries (daanthkeeda)	Drum stick fleshy stem+ Jaggery+Needle	Moringia+ Saccharum officinarum	Fruit+ raw material	The Drumstick fleshy stem is chewed. Following this, wet jaggery is placed on the decayed tooth, which is compressed with the hot needle to kill <i>keeda</i> (insect) in the tooth decay.	Oral ingestion and pressure application with the needle.
6	Head ache/body heat <i>Batripolu</i>		Curcuma angustifolia (Fig.2.)	Tuber	Its powder is mixed in water to drink, which cools down the body and head.	Oral ingestion
7	Scabies	<i>kaanuga</i> seeds oil	Pongamia Pinnata	Seeds	The body is smeared with this warm oil.	External application
8	Diarrhoea	Guava twigs	Twigs of Psidiumguajava	Tender leaves	Decoction of the leaves on the empty stomach for three consecutive days.	Oral ingestion
9	Dysentery	<i>kachatakodili</i> (unripen banana) <i>baliyacheli</i> (cashew bark)	Unripe Musa paradisiaca fruit Anacardiumoccidentale	Fruit	The Juice is extracted from these materials and mixed with one glass of water.	Oral ingestion
10	Fits	Black dog's blood (from ears)+ camphor	Canis lupus familiaris + Cinnamomumcamphora	Blood+ aromatic compound	Blood of the black dog is applying on the forehead and ears.	External application
11	Tuberculosis	Eating food without onions, and heat producing foods	- -	Providing foods without onions	Warding off eye	
12	Measles	Old tamarind paste+ Curcuma longa+ Copper coin immersed in water	Tamarindus indica	The tamarind pulp with turmeric powder is applied overall body and copper coin is always immersed in the drinking water.	External application+ oral ingestion	

Table 2: Contd...

S. No.	Maladies	Ethnomedical formula (in vernacular names and English names of plants and animals)	Botanical/ Zoological names	Part Used preparation	Medicine	Mode of intake
13	Stomach ache or indigestion (Pet dhuka or)	Chorr+ Kanchumutta+gurunda	Burning charcoal+ Copper utensil+ Thick cloth	The warming suppress the pain	First, a cotton cloth is spread on the stomach which is compressed with copper mug filled with burning charcoal.	Pressure application
14	Jaundice (Pachhakammerulu or tikkan)	1. Lemon 2. Curry leaves, 3. Buski# 4. Pomegranate bark 5. Barida# 6. sivana# (fig.4) 7. pathalgaruda# 8. Curd	1. Citrus sp. 2. Murraya/ 3. Chalcaskoenigii 4. Punicagranatum (Food taboo: Turmeric, onion, chillies, eggs and all kinds of meats are tabooed for 6 months. Prescribed food: Smashed ginger and rice.) These are small fishes- <i>Puntiusconchoniiscan</i> be easily found in the streams and paddy fields in the study areas.	1. Fruit 2. Leaves 3. Bark 4. Bark 5. Bark 6. Bark 7. Leaves 8. Curd	1. Leaving aside curd, for the two consecutive early mornings, the patient drinks juice extracted from the rest of materials, which cleanses stomach and vomits on the first day. Then curd is given next five consecutive days.	Oral ingestion
15	Chicken pox (oodiaccha)	Karandimach (a small fish-)			Water with fishes are poured on the affected person head through a sieving plate, performed on early morning for the three consecutive days	External application. Kind of warding off evil eye
16	Mouth/throat infection	Hot water+ neem leaves or turmeric powder	Azadirachta indica+or Curcuma longa powder**	Leaves+ powdered tubers** prepared out of	Pungency heal the blisters	Gargling
17	Malaria (They aware of that Malaria is due to mosquitoes)	Kerosene (mattichickon) + Water		Liquid form	Kills mosquito larvae in breeding places around the house	Spraying around
18	Cholera and Typhoid	Crab (Fresh water) is used in warding off evil eye + Modern medicine from PHC or private clinics	Potamonids		First warding off evil eye with crab followed by taking modern medicine at PHC or private clinics	Warding off evil eye
19	Mental illness	1. Peddachekka (Banyan tree bark) 2. Ravidichekka (Sacred fig bark) 3. Vasa kommu (Sweet flag)	1. Ficus benghalensis 2. Ficus religiosa 3. Acorus calamus	1. Barks 2. Bark 3. Dried root	The juice is extracted from these materials and poured on the person's head and bath is restricted for one day.	External application

Table 2: Contd....

S. No.	Maladies	Ethnomedical formula (in vernacular names and English names of plants and animals)	Botanical/Zoological names	Part used preparation	Medicine	Mode of intake
20	Blood Pressure (due to witchcraft or supernatural effect)	A) 1. Aloe vera paste 2. Castor oil 3. Turmeric powder	1. Aloe vera 2. Ricinus communis oil 3. Curcuma longa	1. Fleshy pulp 2. Oil 3. Powder	During morning and night times, three ingredients are taken with water together.	Oral ingestion
21	Conception	1. Soil from housewasps burrows/ <i>kuduru</i> # (located on house walls) 2. Anthills/termite mounds (located on their streets, but not hills) 3. Sand under water pot in the kitchen and 4. Dried Umbilical cord	Soils and dried umbilical cord	Soils and dried umbilical cord	Taken with drinking water or by mixing in food	Oral ingestion
22	Complicated deliveries	<i>Kodiliso</i>	<i>Musa paradisiaca</i>	Fruit or flower	The fruit or flower aised from trunk, instead of centre of the plant is used as medicine	External application: In the hair
23	Irregular periods	Mango bark with jaggery	<i>Mangifera Indica</i> with raw material of <i>Saccharum officinarum</i>	Bark and raw material of jaggery	Decoction has to be prepared, which tastes bitter and jaggery is used for taste	Oral ingestion
24	Menstrual discomforts	<i>Battripolu olidi</i> (turmeric)	<i>Curcuma augustifolia</i> (Fig.2) <i>Curcuma longa</i>		1. The rizhome's powder is mixed in water to drink. 2. Turmeric powder is applied on overall body.	Oral ingestion
25	White discharge/itching in genitals	1. Rice starch without salt 2. Root of Star jasmine	1. Rice starch 2. <i>Jasminum multiflorum</i>	1. Liquid form 2. Root	1. The rice starch is to drink at night times for 15 consecutive days 2. Drinking of extracted juice from this root	Oral ingestion

#Botanical names of the plants are physically verifiable as it was not available for cultural taboos

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obstetrics through ethnomedicines, which are known as ethno-gynaecology and ethno-obstetrics. The discussion details the Parengi Porja tribal mothers' illnesses in these four concepts, which gives clear understanding of their ethnomedical procedures.

The Parengi Porja tribal mother's term for health is *jibol*, which is always explained by linking to the physical condition of the body, that is, how actively they take up their daily chores according to the age. They perceive that if the health is regained from illness the person is said to be having a healthy body and if toiling to regain health, then said to be affected with severe illness. The illness and disease are termed as *najiboal/rogam* and *jabbu* respectively. The symptoms of illness are inability to work as the body becomes weak, dullness, over-heating of the body, pale or blackish face, inability to stand and sit for longer time, insomnia, less desire to eat food, and inability to listen or respond to others' talk. Parengi Porjas have recognised illnesses as mild and severe, based on the discomfort faced during illness episodes. The former are considered as non-severe with no strict dietary restrictions and also the body does not become much weak, whereas the latter is viewed as severe, because of its severity and the body becomes weak, further there are chances of mortality, if not properly treated (Mishra 2011). As per the mothers, the mild illnesses are cough and cold, fever, body pains, eye pain, headache, dental caries and scabies; the severe illnesses are diarrhoea, dysentery, fits, T.B. (tuberculosis), measles, stomach ache, body heat, jaundice, chicken pox, mouth/throat infection, ear pain, malaria, cholera and typhoid, mental illness, B.P. (blood pressure) are considered as severe, as the body becomes weak, restrictions on diet and food intake also decreases. The female-specific health related practices such as pregnancy care, easing complicated deliveries, postpartum period, irregular periods, menstrual discomforts, and white discharge/genital itching were also analyzed.

The Parengi Porja tribal mothers have loaded with rich knowledge on various ethnobotanical and ethnozoological uses of plants and animals as grasped while receiving from their elderly family members and local medicine man (Rana et al. 2019).

For Mild Illnesses

Cough and Cold: The naturalistic explanation is mainly due to intake of water flowing on the hills when they go for collection of firewood; high intake of cold foods like rice, sour taste foods; getting wet in the rain; drinking water from other villages during functions and ceremonies. The symptoms include hoarseness, runny nose or sneezing, low grade fever, fatigue, not able to feel the fragrance, dizziness and heaviness in the throat and stomach after coughing. The ethnomedicine is oral ingestion of decoction made out of turmeric and long peppers considered as heat producer and eases runny nose and obstruct stuffiness and cold by clearing/dissolving thrush in the nose and throat.

Fever: The naturalistic explanation for fever is mainly due to cold or getting wet in rain or taking bath in different places. The personalistic explanation for fever is due to fear when they roam at nights and not wishing their ancestors while passing the graveyard. The symptoms are the high body temperature, body ache, sleepiness, cold, headache, and loss of appetite (Mishra 2011). The ethnomedicine includes external application of warm niger oil or castor oil to cool down the body temperature, by sinking into skin pores and heat to escape (Gollin 2004).

Body Pains: The naturalistic explanation is working long hours during cultivation periods or working in MGNREGA works (Mahatma Gandhi National Rural Employment Guarantee Act - where they have to lift heavy weights, cleaning up forests and villages and digging holes for rain water storage). The personalistic explanation is due to the evil eye and not properly bowing their deities. The symptoms are the weakness, unable to lift hands and legs, unable to get up from bed comfortably, and low back ache (Mishra 2011). The ethnomedicine is taking bath with hot water boiled with eucalyptus leaves (known as aromatic leaves by people). The aromatic hot bath soothes body and produces sound sleep.

Eye Pain/Conjunctivities and Ear Pain: The naturalistic explanation is due to the exposure to the sun; heavy thunders during the rainy season; when small particles or insects fell in the eyes during reaping, thrashing and dehusking the grains and also old-age factor. The person-



Fig. 1. The dried plantain fruits used for easing complicated deliveries



Fig. 2. *Curcuma augustifolia* tubers are used in treating headaches, body pains and menstrual discomforts



Fig. 3. In every home, near to cowdung dump, a pole with broomstick, winnowing pan and paddy stalk is erected to threaten evil spirits intruding into home



Fig. 4. *Sivana dal* is used in treating jaundice



Fig. 5. Pumpkin leaves are highly used green leafy vegetable in treating eye related problems. It is available during June to November months and are good source of Vitamin-A (NIN, 2011)



Fig. 6. From the third month onwards, the pregnant mothers wear talisman made out of *sorrendar* tuber (hairy one, beside the mug), in a belief on warding off evil eye



Fig. 7. These materials are used in warding off postpartum pollution among Parengi Porja tribal mothers. The ingredients seven colours of fruits, and flowers each, betel leaves, puffed rice and jaggery, dried chunks of cow dung and wicks for lightening lamp for initiation of a rite. After this, the close kins or neighbours can enter to see new mother and newborn baby.



Fig. 8. The local medicine man (standing position) was performing warding off postpartum pollution on the postpartum mother in the backyard of her affinal house. Her husband's father (sitting) was helping him to continue the process.

alistic explanation is seeing the whirlwinds as Parengi Porja tribal mothers regarded it as the movement of ghosts mainly when a person goes alone to the villages or other villages on a full moon or new moon day. The ethnomedicine used for eye pain/allergies is the application of boiled fat in the person's eye collected from the crow's meat or liver which allows eye to cool by absorbing the sediments in the form of eye crusts and also they regularly consume pumpkin leaves curry under the treatment. For ear pain, two drops

of warm niger oil popped with garlic cloves are poured into ears, which eases pain by cleansing the small particles and small insects. Pumpkin leaves (Fig. 5) are highly used green leafy vegetable in treating eye related problems. It is available during June to November months and are good source of Vitamin-A (NIN 2011).

Dental Carries: It has only naturalistic explanation that is due to chewing of tobacco products and drinking of mud water during rainy season and winter season due to an overflow of streams. The symptoms are unable to eat and screwing pain from the decayed tooth. The ethnomedicine includes chewing of fleshy drumstick stem which acts as a pain reliever because of bitter taste following that jaggery is pressed on the decayed tooth with a hot needle. According to them, sweetness of jaggery pull out the insects in the decayed tooth, with the needle warm pressure.

Headache: The naturalistic explanation is due to heavy works and consuming insufficient food and water; and the personalistic explanation is infliction of the evil eye. The affected person feels like crying because of the moving pain in the head. The ethnomedicinal cure is that the paste of dried *Curcuma augustifolia* (Fig. 2. Indian arrow root) is either applied on the forehead or taken as a tonic by mixing in water. This acts as a cooling agent which stops movement of pain in the head.

Scabies: It has only naturalistic explanation which is considered as a transmitted disease. It occurs due to taking bath in dirty water; keeping body unclean like leaving the sweat dry on the body; by taking bath together in common ponds and also by contact of insects or lice in hens/ cocks/sheeps/goats. The symptoms are frequent itching and dry scaling. The oil extracted from *Pongamia pinnata* (Indian beech tree) is applied all over allergic area and wounds. According to them, the bitterness of oil stops allergy and removes unwanted skin on the body.

For Severe Illnesses

Diarrhoea: The naturalistic explanation is attributed with indigestion/intake of spoil food (during winter and rainy season); heat in the stomach (Mishra 2011); heavy consumption of water after immediate exposure to sun for a long

time or after eating food, taking spicy food and eating sweets in large quantity in any of the seasons. The personalistic explanation given is the “wrath of evil” in which colour of the faecal matter is the pale yellow colour with green particles. The symptoms are diarrhoea, vomiting, acute weakness, unable to move, lack of appetite, and the body becomes dehydrated. The ethnomedicine used is decoction of guava twigs. It is an oral ingestion method taking in three consecutive early mornings and the sourness stops bloating of the stomach and thickens loose stool.

Dysentery: The naturalistic explanation is drinking water after heavy consumption of mangoes, jackfruits and cashewnuts (mainly during the month of March, April, June, July and August). The personalistic explanation is eating/tasting food before offering to god/ancestor on the festive or ceremonial days. The symptoms are fatigue, blood in stool, fever, vomiting, static eye lids, and bends while walking. The medicine is oral ingestion of the juice extracted from unripe banana and cashew tree bark and mixing it with one glass of water and consumed for three consecutive early mornings. The Parengi Porja tribal mothers perceived that ripe banana and cashews propagate excretion, whereas unripe banana and cashew tree bark are hard to excrete which ultimately stops blood motions.

Fits: The naturalistic explanation is due to consumption of peacock's and rabbit's meat, and country eggs (broiler eggs) during night times, menstrual days (as it makes them menstruate more), and full moon and new moon days (hunting is also restricted on these days). The personalistic explanation is attributed with infliction of god/evil spirit (if god is intruded, the person shakes the body in standing position; if evil, then they shake after lying on the floor). The symptoms are frothing at the mouth or drooling, falling, clenching teeth, biting tongue, and having sudden rapid eye movements. The ethnomedicine used is blood collected from ear of black dog mixed with camphor is applied all over the head. As per Parengi Porja tribal mothers are concerned, it normalises the pulse to move properly in the body as blood smell and camphor inhaled by the patient removes the blockage that stops pulses in the body.

Tuberculosis: The naturalistic explanation is caused due to high consumption of alcohol and

onions. The personalistic reason is mainly because a person scolds their deceased person/ancestors. The symptoms are prolonged fever, coughing severely and unknown wounds with pus on the body. The ethnomedical practice is taking food without onions and eating heat producing foods and besides this, they have sought timely modern medicine treatments to get rid of the disease.

Measles and Chicken Pox: It is called as traditional and dangerous illnesses which lead to mortality, if not given immediate proper care. These are attributed with personalistic systems, saying inflicted by god/ancestors as a punishment for breaching family taboos (Feyisetan et al. 1997). They offer bangles, vermilion, coconut, banana, puffed rice with jaggery to make the goddess pleased and the patient should not move out until get cured. The patient is given food without salt and oil. The ethnomedical practice for ‘measles’ is applying the tamarind pulp with turmeric all over body and drinking water from copper vessels immersed with copper coin. They perceived that the former has the suppressing property of wounds erupting inside and outside of the body and the latter flushes out bad materials/impurities from the body.

The ethnomedical practice for ‘chicken pox’ includes two buckets of water collected from the pond or paddy fields with small fishes (*Puntius conchoni*) - Usually paddy fields are low submerged in water until grain arises from the stalk, which has to be poured on the patient through sieve plate. As per their view, fishes do not have wounds and its fresh water cleanses wounds by not allowing to pop-up on the body.

Stomach Ache and Mental Illness: The former holds only naturalistic explanation and latter has both the explanation of illnesses. The naturalistic explanation is that eating of improperly cooked mushrooms, meat and also taking food at inappropriate times. The personalistic explanation for mental illness is that responding to howling sounds and screaming when they go alone for fetching stream water and firewood.

The ethnomedical practice is pressure application with a copper vessel filled with hot charcoal placed on the stomach with the medium thick cotton cloth, which eases pain as warmth suppress the movement of pain. The symptoms are cramps and fatigue for stomach ache.

The ethnomedical practice is that the patient's head is smeared with three pastes extracted from barks of banyan tree, sacred fig and sweet flag during evening hours. As per their view, the paste is pungent and cooling in nature that enhances sleep which ultimately calms down the person's unknown sorrows, depression, anger and dissatisfaction (Bathing is restricted for one day). The symptoms are loss of consciousness and unnecessary gestures and talks.

Jaundice: The naturalistic explanation is due to working long hours under the sun at the same time over consumption of alcohol and meat which in turn produce kind of poison in the body; the personalistic explanation is attributed with neighbour's evil eye while eating food or on wearing new clothes. The symptoms are fever, white portion of the eyes appear green colour, and passing urine in green colour. The ethnomedicine is oral ingestion of a paste prepared out of lemon juice, curry leaves, *buski*[#], pomegranate, *barida*[#], *sivana*[#] (Fig. 4), and *pathalgaruda*[#] for the two consecutive early mornings. On the first day, the patient vomits out the paste but not on the second day. Following this, for the next five consecutive days, the patient eats curd. As per the Parengi Porja tribal women, the former collects green colour fluid from all over the body (that is from the eyes, hands and private parts), which comes out through vomiting and the latter cools down the body.

Mouth/Throat Infection: It is considered as severe illnesses as the patient is unable to take food and faces fatigue. The naturalistic explanation is attributed with improper cleaning of mouth and indigested food particles might be attached to the throat; the personalistic explanation is that the wrath of ancestral deity (*Pidho rdevatha*) is when the person dislikes or refuses to eat the offerings made to him. The ethnomedical practice is gargling with decoction of neem leaves or turmeric powder as its pungency heals the blisters.

Malaria: The Parengi Porja tribal mothers are well aware that malaria is caused due to malarial mosquitoes infecting blood and in turn leads to cold and fever (*seethajwara*), which is a naturalistic explanation. The ethnomedical practice is spraying kerosene in the surroundings of the houses and backyards.

Cholera and Typhoid: Both are attributed to naturalistic and personalistic explanations. The

former is caused from eating stale food and drinking water from hills and streams filled with mud, green patches (that is, algae), dried leaves and animal debris. The latter is inflicted by evil spirits while moving near the streams. The Parengi Porja tribal mothers had sought pluralistic care for both illnesses. At first, they take ORS (Oral Rehydration Solutions) and tablets given by ANM (Auxiliary Nurse Mother) of their villages. If it is not reduced, they go for PHC (Primary health centre). On another side, the warding off evil eye is performed by an elderly person using fresh water crab. The perception is that the crab legs tinge the skin which reduces weakness of the body.

Blood Pressure: Locally, it is termed as *dhad-dhad* which means increased heart beat and sweating. There is only naturalistic explanation that is, due to over-thinking of the issues and tensions of their own lives. The symptoms are increased heart rate and swelling of legs. The ethnomedicine used is oral ingestion of aloe vera paste, castor oil, and turmeric paste all together with drinking water during morning and night times until fast beating of heart decreases.

Ethno-gynecology and Ethno-obstetrics

Easing Conception Problems: Among Parengi Porja tribal mothers, when a married woman has not conceived within initial 12 months of marriage life, then she is regarded as having problems in conceiving a child. To beget children, they take four types of ethno-medicines. Among these, one of the ethno-medicines is given by local medicinal woman (*gurumaini*) and the rest of the three are collected by married women themselves which are available in home or surroundings of their own village. Even after taking these medicines, if a woman does not produce any child, then she is termed as *banji* and for men, it is *banjola*. The reasons for late conception is attributed to only wife as not taking enough food or not offering proper prayers to ancestral deity, ancestors and gods or would have breached up food taboos (especially consuming more alcohol or peacock's meat or rabbit's meat) during the course of early reproductive life, that is, after puberty. The mothers who are facing troubles for conceiving second or third child also take these home based medications. It's not rec-

ommended to male members, saying, pregnancy develops only in a woman, so she ought to take conception care.

The compositions of the prescribed ethno-medicines are soils collected from anthill/ termite mounds (located on their regularly walking streets in their own village, but not on hills) or soil from their own kitchen (especially from the place where they routinely keep their drinking water pot) or soil from house wasps burrows or soil from insect burrows (*kuduru*[#] insect found only in summer season) and even they use to eat a small portion of dried umbilical cord collected from recently born babies. These medicines are orally taken mixed with drinking water or food. This practice of consuming soil is called as “geophagy”. This is a culturally sanctioned practice among Parengi Porja, especially advised to women who are facing problems in conceiving a baby, which makes them fertile enough to produce children. In the literature, the practice of geophagy among pregnant women is common in many cultures, which means regular, deliberate and culturally sanctioned consumption of soil. Women consume a variety of soils including hardened clay soil and soil from the walls of termite mounds. These soils are said to be helpful for pregnant women for an easy delivery and for men it increases sexual prowess (Kawai et al. 2009; Njiru et al. 2011).

Pregnancy Care: The Parengi Porja tribal mothers have strict home based pregnancy care observing through food intake. The food taboos are *umrood* (papaya), *nodiya* (coconut), *nagolkanda/pindikanda* (tubers), *unda* (eggs), the meat foods like *doblakukkuda* (white chicken), *kada moss* (rabbits meat), *moonjoor* (peacock’s meat), *goddu mass* (beef) *boriya moss* (pork) and *modh* or *pendom* (distilled liquor). These foods are said to be “hot foods that generate heat in the pregnant woman’s body” that leads to miscarriages. Also the women are instructed to wear talisman made out of *sorrendar* tuber (Fig. 6 a black hairy tuber of foot size) on their necks from the 3rd month onwards.

In the present villages, the antenatal care (modern medicine based) is also existed, regularly providing by the ANM. The medicines include IFA (Iron folic) tablets, injections, Vitamin B12 tablets and iron tonics. Importantly, it has been observed that the Parengi Porja pregnant

mothers do not take modern medicines and tonics, as they smell bad and cause vomiting sensation. At the same time, it’s a strict order from the husband’s mother and husband’s grandmother to discourage them. As per Van Hollen (2003) and Samakya and Naidu (2017), the belief behind this ignorance is that these medicines dissolves the baby in the womb and leads to less weight babies.

Complicated Deliveries: The naturalistic explanation is attributed with having sex during pregnancy after seventh month as the child’s head turns down by that month. The personalistic explanation is not observing pregnancy rites, that is, the ancestral deity and deities were not pleased with offerings (include coconut, sweet made out of ragi and rice, white cloth, liquor and eggs/meat). Among the Parengi Porja, as said by Samakya and Naidu (2017), the complicated deliveries are referred as having longer labour pains if the child’s leg or hand nears the birth canal, instead of head. And also, even if the head is near the birth canal, deliveries cannot occur as the umbilical cord is around either body/neck/hands/legs. In such cases, they seek the help of local traditional birth attendants (*sutranimaizi*), who administers medicine on the mother’s hair or ears with dried *kodilioso* (Fig.1. plantain/banana). Usually, the *kodilioso* (*Musa paradisica*) arises from the centre part of upper trunk portion is taken for edible purpose. Whereas the flower or fruit arose from the mid trunk is used as medicine in complicated deliveries which are stored after being sun-dried. The same medicine is used when there is difficulty in delivering the placenta. They perceived that it gushes out the child and the placenta as banana/flower had aroused from the mid-trunk, which signifies the fastness of the plant that stronghold of the medicinal property relating to the childbirth.

Postpartum Care: The Parengi Porja mothers give much importance to home based postpartum care practices as it helps to restore new mother’s body from labour pains and also keep them strong life long, if taken utmost postpartum care. It includes body compressions with coconut/niger/castor/gingely oil popped with camphor or turmeric or garlic corns. The belly binder is must as it helps regain loosened stomach muscles after childbirth and right posture while breastfeeding, further it relieves the uter-

us and pelvic pain (Lundberg and Trieu 2011). Following this, both the mother and newborn are always wrapped with warm clothes/thick blankets; heads are covered with woollen towels and cotton balls in the ears to prevent passage of cold air and to sustain from cold weather. The postpartum menstrual cloths are timely washed with hot water after use and also dried on the hearth.

Most importantly, it is observed that before child is put to breastfeed, the new mother (80%) dispose/sacrifice colostrum (*sikkidoodh/agthurdoodh*) to both *dumma* (ancestors) and *dumba* (evil spirits), as part of the cultural tradition. The sacrifice is made through four mediums based on the timing of the child born on *sakale* (morning), *moidane* (afternoon), *saunj* (evening) and *monjarati* (midnight). The four mediums are land, cloth, cowshed and broomstick. If the child is born in the morning hours, they use land as a medium to sacrifice colostrum for ancestors; if it's in the afternoon, the broomstick is the medium; in the evening hours, they collect the colostrum in jackfruit or mango leaves and drop it in their cow's shed; and cloth is used as a medium if the child is born in the midnight hours. This determines that the child is not fed with the colostrum until the child excretes out meconium/first faecal matter, a harmful custom of them. Some of the mothers who had delivered in PHCs and private hospitals have used cloth as medium to sacrifice it to the ancestors. Some mothers (10%) have voiced that they had breastfed the child with the colostrum as doctor/ANM/CHW (Community Health Worker) advised during antenatal check-ups. The belief is that the newborn child is detached from the family of the ancestors, so sacrificing the colostrum gets no threats from ancestors or by evil spirits (Samakya and Naidu 2017). And also they avert the intrusion of evil spirits into homes by erecting a pole with broomstick, winnowing pan and paddy stalk near to cow dung heaps in their respective backyards (Fig. 3). The postpartum ritual (Fig. 7 and Fig. 8) is observed on 3rd or 7th day or 11th day that signifies warding off postpartum pollution that welcomes the close kins or neighbours to see new mother and newborn baby.

The postpartum diet plays an important role to sustain from postpartum blood loss, keep the mother and child healthy enough and preparing

her future pregnancies. For the first two days from childbirth, in the morning and the afternoon, the new mother is provided with a handful of rice, quantified and served two to three times on jackfruit leaves and hot black tea with biscuit or bun is taken at nights. These foods are viewed as safe falling of umbilical cord and cleansing of postpartum blood/menstruation (lasts five to nine days) without allowing formation of debris in the new mother's stomach. On the third day, rice with hen's soft liver, hard liver and heart is introduced in the diet. On the fourth day from child birth, *sam choul* (ancient variety of rice-*Panicum sumatrense*) with *rasam* (made out of tamarind pulp and garlic cloves) and *koridisa* (Bamboo shoots curry- *Bamboosa vulgaris*) are given. These foods are considered as hot foods that regulate heat in the new mother's body to sustain cold and secondly not expose to fevers. The consumption of *rasam* helps early drying of uterus and easy defecation without hurting uterus muscles; bamboo shoots adds more strength to hips and waist; chicken liver, hard liver and heart keeps the body warm and increases blood formation. Galactogues foods (milk producing foods) such as *netталu/pithaparigalu* (small fishes), curry made out of raw papaya (*Carica papaya*) and earthworm (*Lumbricina*) enhance breastmilk (Samakya and Naidu 2017).

Menstrual Discomforts: The naturalistic explanation is that the improper washing of menstrual cloths and inner skirts during menstrual times and the personalistic explanation is that the attack of evil spirits, when a person goes to collect firewood and water by leaving hair freely.

Irregular Periods: The naturalistic explanation is attributed with irregular eating, sleeping and bathing practices like eating at inappropriate times, lying down in the afternoons and not taking head bath on the third and fifth day from the monthly menstruation respectively. The personalistic explanation is because of any kind of fear in the body like anxiety on evil spirits. The ethnomedical practice includes decoction of mango bark with jaggery which is soaked overnight.

White Discharge/Itching in Genitals: It holds only naturalistic explanation that is due to consumption of heat producing foods such as eating more rice, dried meats, and improper wash-

ing of clothes. The ethnomedical practice is that drinking of rice starch without salt during night times for 15 consecutive days; and the other medicine includes the juice extracted from the root of *Jasminum multiflorum*/star jasmine during night times. As per their view, the whitish colour of the flower calms down the private parts by dissolving the white discharge and itching in the urine.

CONCLUSION

The Parengi Porja ethnomedical practices reveal that the categorisation of illnesses into mild and severe help the people seek immediate treatments based on the physical symptoms and the nature and measure of pain suffered by the patient. In the case of increased severity, they opt for modern medical treatments. Based on the ethno-symptomology and the intensity of pain, the curing method is emphasised. The curing method highly includes home remedies/household therapies, magico-religious practices, pressure application and use of metals (copper utensils and needle to rotate and prick respectively), which are mainly prepared using plant and animals extracts. The way of handling complicated deliveries followed by pregnancy and postpartum uneasiness to save lives of the mothers and the children requires recognition and appreciation. Further, having intelligence and timely treatment of other illnesses such as warming the body when the patient's body temperature is down, followed by avoiding the food and drink during vomiting; drinking salt and sugar water when stomach ache is complained; applying turmeric all over the body when itching; compressing body with hot oils to ease headaches and body pains, and vowing to the deities certain offerings like offering bangles, sweets, and coconuts represent their first aid to slow down the sufferings.

At the same time, they strongly believe in the concept of evil eye and evil spirits as inflicting illnesses which are managed in preventing with different ingredients in a prescribed manner. For mild illnesses, turmeric water mixed with lime, dry chilly and hair is rotated around the patient and finally poured out in the cross roads or backyards. Along with these materials, freshwater crab is used for the treatment of severe

illnesses which are performed by the local medicine man through cross road motifs. From this, it can be easily understood that the ethnomedical practices (along with warding off evil eye) have always increased self-confidence and courage to regain health even in severity of illnesses. The major reasons for this positive trait are the natural environment surrounding them, supportive ecology, fetching forest based natural food and medical knowledge on the available herbs and animals. This also led to the progressive attitude towards their medical practices.

The tribes have sought the treatment of local medicine man and woman (*Disari* and *guru-maini*) when their own household therapy do not show any improvement on the patient. They are store houses for ethnomedicines provided at quick rate as they collect and store it in ample amount for future use. They handle the patients without bias and sometimes, they directly suggest the patients to go for modern medicine in emergency cases, which they gained from their own experiences in treating patients. This represents that Parengi Porjas are practising medical pluralism to substitute the remedies with modern medicines from PHCs (primary health centres) and private clinics for regaining health, when there is short of herbs, and animal based medicines and non-availability of local medicinal healer. But the degree of seeking modern medical treatments are less for both common illnesses, ethno-gynaecology and ethno-obstetrics as there is lack of proper transportation facilities, language barriers with doctors and nurses, extreme climatic conditions (as region is prone to heavy rains, and cyclonic zone), irrespective of nearness to PHCs.

Overall, the Parengi Porja tribal mothers always strive to stay healthy for long life which can be understood from their proclaim, "if mothers are healthy in any family then her family members are also healthy in any society," achieving through cultural responses. Thus, ethnomedical practices have formed an important institution that is passed down from generations which are culturally acceptable, meaningful, and provides relief and care to affected person at the earliest period.

RECOMMENDATIONS

Based on the findings, the researchers recommend to the Indian National and Andhra

Pradesh state level health sectors to support and promote traditional health care practices (Beneficial and non-harmful) along with introducing modern medical services gradually. And also should ensure that the special health care and fertility care be provided. This oral tradition of medical knowledge should be documented to understand its veracity. Further, the ethno-medicines taken in the form of food and medicine during pregnancy, postpartum, complicated deliveries and certain illnesses are to be subjected for scientific screening to identify the really useful herbal formulae.

LIMITATIONS

The present work has its own limitations in extracting data from Parengi Porja tribal mothers. Only those illnesses episodes experienced within one year of the study were collected to avoid recall bias over a long period of time. The research work for this paper has obtained important information on pregnancy, childbirth, postpartum and gynaecological problems limited to the selected villages for study. Most of the practices were garnered through participant observation and rest of them were reported practices by the mothers. Hence, the interpretation and generalizability of the findings of this study may be limited to people of these Parengi Porja villages.

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