

Over-Religious Activity, a Threat to Biodiversity (6): Celebrations of Sri Jagannath Temple, Odisha *vis-à-vis* Epidemic Diarrhoea in the Past: A Mini Review

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ABSTRACT Odisha is a diarrhea prevalent area. The occurrence of the disease has a root with the history and culture of the state. Ethno medicinal exploration against diarrhea, records 74 plants from Odisha, tops the national record.

INTRODUCTION

The running caption of this communication (Padhy 2016b; Padhy 2017a,b,c; Padhy and Mohapatra 2016) provokes a negative reaction (personal interaction and observation of the author) among the blind religion followers, not ready to contradict their own philosophy, interpretation and feelings and also not ready to accept their own over-religious negative commitments, irrespective of their educational status. In this context, a past event of 130 years old that occurred at Sri Jagannath Dham, Puri, Odisha needs to be recalled (Sahu 1995). The British administration at that time could not control the epidemic spread of Cholera at Puri during a celebration of the temple, and was hand tight to recover the over-religious pilgrims from the clutches of death. This communication focuses on the prevalence of diarrhoea in the Odisha state, past and present, with few speculations for the occurrence of the disease pertained to human food habits and religious activity. Ethno medicinal measures taken by common men are also reflected (Dash and Padhy 2006).

TEMPLE FOOD CULTURE

Out of the total number of temples recorded in India, fifty percent approximately are in Odisha state alone and their rich heritage of plant conservation is reported earlier (Mohanty et al. 1997). In each and every temple in Odisha, there is a traditional culture of kitchen preparation of variety of food recipes offered initially to Gods, which later are consumed by human with a com-

mercial brand name '*prasaada*'. The people of Odisha have rich food habits. This is claimed because the habit of a society is reflected in their temple culture. In the world famous Sri Jagannath temple about 56 varieties of food combinations and recipes are prepared every day and served more or less for 10,000 number of devotees. However, during the festive occasions the number gets increases.

Another such big center of commercial *prasada* preparation next to Jagannath temple (*Shree Mandira*) exists in Bhubaneswar entitled '*Ananta Vaasudeva Mandira*'. Likewise, different small centers in all other places of Odisha state associated with temple culture are outstanding features as on today.

Even, the food (*prasada*) intended from temples is for the thousands during various social functions like marriages, holy thread ceremonies and other rituals too. Of course, in temple culture related food preparation, there is no possibility of contamination as it is served hot. But, it certainly is a concern for the rich food habit of Odia society and may be such a habit is the key features for stomach disorders.

Besides such rich food configuration, another important habit, mostly tagged with Odia culture is the habit of taking stale food. The unconsumed remnants of cooked rice are admixed with water along with a little stale extract (*morana*, the yeast extract) of previous stock and allowed to be fermented even more than over nights. This rice is named as '*pakhaala*' taken as such, which, is enriched with fermented by products like ethanol. Even though such rice is consumed by poor to sub-middle class

families, the dining table of rich people is also not free from that at times. This too, has reflected in the temple culture. In *Shree Mandira*, the stale rice water is sold in the brand name *Tanka Torani*. Now the temple administration has raised an objection against this business on health grounds.

The stale rice water (*pakhaala*) is also used to prepare another recipe along with many vegetables, known as '*kaanjee*' (gruel), another favorite Odia dish. At times, the *kaanjee* is preferred to be eaten on the next day of its preparation for a better palatable sour taste. It must be admitted that such stale food like *pakhaala* and *kaanjee* constitute a medium of growth conducive from a microbial point of view add their role

in initiating stomach disorders, cannot be ruled out.

DIARRHOEA IN ODISHA

Odisha is represented as the most diarrhoea prevalent area, as accounted in the Indian therapeutic scenario (Fig. 1) (Bhasin 1994; Bhasin and Bhasin 2001). In their report, Odisha tops the record of diarrhoea statistics compared to other surrounding states. In the year 1995 the recorded number of patients in the Odisha state was 12,80,000 out of which the number of patients of diarrhoea disorders 11,88,000, with the recorded death toll of 803 against the total death toll of 2016 numbers (Dash 1995).

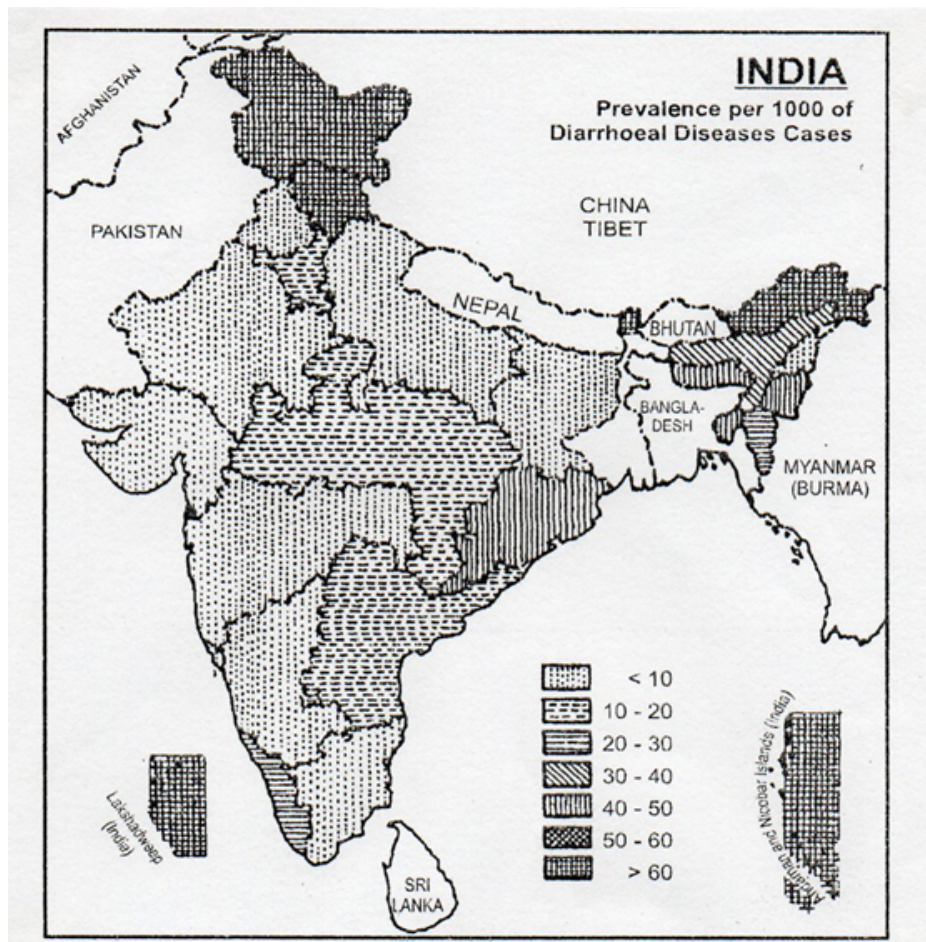


Fig. 1. Comparative prevalence of diarrhoea diseases in various states of India (Adopted from Bhasin & Bhasin 2001. @ Kamla-Raj Enterprises, Delhi)

The prevalence of diarrhoea in Odisha in the past has historical records (Sahu 1995). Occurrence of the disease as an epidemic is mostly related to the functions of Sri Jagannath temple at Puri due to the occurrence of huge gatherings. One such record collected from government files is elaborated as follows:

Despite the promulgation of an ordinance during February 1886, by the British Regime, directing the public not to arrive at Puri for the *Dola Yaatra* celebrity, it had no impact on the people and the epidemic of Cholera penetrated to Puri being flown through pilgrims from the effected regions like Rambha, Parikuda and Maluda of the Ganjam belt. Pilgrims by and large abundantly congregated at Puri.

An eyewitness says, every morning was found with dead bodies of ten to fifteen people dying of the epidemic. Barlo Saheb, the then Collector and District Magistrate of Puri district, had deployed six scavengers to cremate the corpses in the graveyards. Also, four carts (carriages) were engaged for the purpose. Later, in view of the grievously increasing number of corpses, it became, rather impossible to cremate every day. Instead, the mortal remains were thrown, which was dumped as heaps of hundreds in the burial grounds.

There were instructions even to the scavengers to transfer the severely affected patients from roads to the hospital. But, with the fear of being outcaste due to contact with the socially untouchable scavengers or even by taking English medicines from hospitals, the patients were preferring to die on the roads, rather than availing the facilities, so provided by the administration (Sahu 1995).

The gathering at Puri despite the Cholera epidemic and fear of being outcast due to contact with the socially untouchable scavengers was certainly not a healthy sign of sound religious activity. The non-taking of English medicines speaks of the poor educational status of people at that time. Maybe, they had more faith on herbal treatment than any unknown foreign system.

RATH YATRA VERSUS EPIDEMIC

The *Jagannath Dham* temple at Puri and its heritage is the heart of culture, history, politics, literature, worship and day-to-day rituals of Odisha. The temple heritage and culture is so vast and deep-seated that no subject of Odisha is free from its influence including even the so-

called non-Hindus. The temple celebrates 13 festive occasions in 12 months of the year. Thus, the Oriya proverb says, *Baara* (12) *maasare* (month) *tera* (13) *parva* (festivals). Out of these 13, the *Rath Yatra* (car festival) is prime among these, which occurs in the month of *Aashaadha*, which coincides with the month of July in the English calendar. During all the festive occasions, there are huge gatherings at Puri Dhaam and it reaches the top during the car festival.

Presently, an assemblage of more than 10 lakh subjects the world over congregated in one day at Puri for a single cause. When looking back at history, it speaks even during the past where there was lacking of suitable communication and transport, the gathering was never less than 2 lakhs. In those periods, there were no preventive measures for diarrhoea or against any other epidemics. People used to come walking from every nook and corner of India, which initiated months before. All these situations such as high congregation, lack of preventive measures, lack of hygienic condition, lack of proper medicaments and facilities there in and above all the irregular lifestyle in an incrementing meteorological conditions like rainy season (July) may be the most effective cause of onset of diarrhoea diseases. Many such unfortunate events as one the described earlier are referred in the news history of Odisha during the British period, which is more elaborative and evident of the causes. Moreover, the Jagannath temple has its own historical records of the day-to-day events scribed on palm leaves, popularly known as "*Maadala Paanji*", which also supports these pre-going statements.

Ratha Yatra is not only concentrated to Puri, but rather, it is an occasion throughout Odisha. In every privileged rural unit, there is existence of a Sri Jagannath temple and the people of that area congregated in huge number to celebrate the occasion on that day. Maybe, such congregations were smaller units of the conditions compared to what prevailed at Puri. Under such conditions, once the diarrhoea disease like Cholera gets initiated, it disseminated all over by infiltration through vectors in form of movement web of network.

ETHNO MEDICINAL EXPLORATION

The credit for the systematic use of plants as medicaments goes to Indians as recorded in Atharva Veda and is subsequently compiled in the form of Ayurveda. The Vedic age Indians

were also aware of microbial biodiversity (Padhy 2016a). In India, about 3000 plants are used in the form of ethno or folk medicines based on oral information from generation to generation. About 1500 plants are systematically used in indigenous system of medicine, like Ayurveda, Unani and Siddha. It is obvious that folk medicines are the original source to point out the plants as the source of medicine in the primary level (Prakash 1998). If one still goes back, the search of a plant for medicinal use by a common man is complementary to the saying, "Necessity is the mother of invention".

As per the 1981 census, Orissa has about 62 scheduled tribes and sub-tribes (Danda 1996). As a matter of fact, ethno-medicines are not only

of tribal origin, but rather, civilized people distinctly contribute to this too. The latest review on ethno-medicines of Orissa state (Das et al. 2003), accounted some 421 plants reported from 11 undivided districts used by 24 tribal communities and inhabitants of village folks of plane areas. This encompasses the use of plants against 166 diseases out of 27 plant parts. Interestingly, the record of plants used for diarrhoea diseases (clinically defined as a gastric disorder due to cholera, acute watery diarrhoea, dysentery or persistent diarrhoea and gastroenteritis) accounting to 74 numbers, which again shares forty-eight percent of the total record on all India basis, reviewed earlier (Mohanty et al. 1998). This huge recording of plants for diarrhoea rais-

Table 1: Ethno medicinal plants for diarrhoea diseases reported from Odisha

S. No	Botanical names	S. No	Botanical names
1.	<i>Acacia nilotica</i> (L.) Del.	38.	<i>Hemidesmus indicus</i> L.
2.	<i>Achyranthes aspera</i> L.	39.	<i>Jatropha curcas</i> L.
3.	<i>Acrois calamus</i> L.	40.	<i>Jatropha gossypifolia</i> L.
4.	<i>Aegle marmelos</i> (L.) Correa.	41.	<i>Kalanchoe pinnata</i> Pers.
5.	<i>Aerva lanata</i> (L.) Juss.	42.	<i>Lawsonia enermis</i> L.
6.	<i>Ailanthus excelsa</i> Desf.	43.	<i>Ludwigia perennis</i> L.
7.	<i>Allium cepa</i> L.	44.	<i>Mangifera indica</i> L.
8.	<i>Amaranthus spinosus</i> L.	45.	<i>Manilkara zapota</i> (L.) P. Royen
9.	<i>Alstonia scholaris</i> (L.) R. Br.	46.	<i>Mesua nagassarium</i> Burm.f.
10.	<i>Andrographis paniculata</i> Nees.	47.	<i>Mimosa pudica</i> L.
11.	<i>Anogeissus latifolia</i> Wall.	48.	<i>Mimusops elengi</i> L.
12.	<i>Asparagus racemosus</i> Will.	49.	<i>Mucuna pruriens</i> (L.) D.C. (= <i>M. porurita</i> Hook.)
13.	<i>Azadirachta indica</i> A.Juss	50.	<i>Murraya koenigii</i> L.
14.	<i>Basela rubra</i> L.	51.	<i>Musa paradisiacal</i> L.
15.	<i>Breynia retusa</i> Alston.	52.	<i>Oroxylum indicum</i> L.
16.	<i>Butea monosperma</i> (Lamk.) Taub.	53.	<i>Oxalis corniculata</i> L.
17.	<i>Calotropis gigantea</i> R. Br.	54.	<i>Pavonia odorata</i> Will.
18.	<i>Careya arborea</i> Roxb.	55.	<i>Phoenix asperulatus</i> Hutch.
19.	<i>Cassia occidentalis</i> L.	56.	<i>Phyllanthus. emblica</i> L.
20.	<i>Citrus medica</i> L.	57.	<i>Psidium guajava</i> L.
21.	<i>Coleus amboinicus</i> Lour.	58.	<i>Punica granatum</i> L.
22.	<i>Curcuma angustifolia</i> Roxb.	59.	<i>Sphaeranthus Indicus</i> L.
23.	<i>Cyperus rotundus</i> L.	60.	<i>Spondias pinnata</i> Kurz.
24.	<i>Datura metel</i> L.	61.	<i>Sterculia urens</i> Roxb.
25.	<i>Derris trifoliata</i> Lour.	62.	<i>Strychnos nux-vomica</i> L.
26.	<i>Desmodium velutinum</i> D.C.	63.	<i>Symplocos racemosa</i> Wt.
27.	<i>Diospyros melanoxylon</i> Roxb.	64.	<i>Tamarindus indica</i> L.
28.	<i>Elephantopus scaber</i> L.	65.	<i>Tectaria cicutaria</i> L.
29.	<i>Emblica officinalis</i> Gaertn.	66.	<i>Terminalia bellirica</i> Roxb.
30.	<i>Entada rheedli</i> Spr.	67.	<i>Terminalia chebula</i> Retz.
31.	<i>Erythrina variegata</i> L.	68.	<i>Tridax procumbens</i> L.
32.	<i>Feronia limonica</i> Nie.	69.	<i>Valeriana jatamansi</i> Jones
33.	<i>Ficus benghalensis</i> L.	70.	<i>Vernonia squarrosa</i> Lesas.
34.	<i>Ficus hispida</i> L.f.	71.	<i>Viscum orientalis</i> Willd.
35.	<i>Ficus racemosa</i> L.	72.	<i>Zingiber officinale</i> Rose.
36.	<i>Flemingia Strobilifera</i> L.	73.	<i>Zingiber purpureum</i> Rose.
37.	<i>Gmelina arborea</i> Roxb.	74.	<i>Ziziphus mauritiana</i> Lamk.

Source: Das et al. 2003

es a question regarding such significant recurrence confined to a particular state of Odisha. The poverty-stricken, inadequate rather poor educational status of people in Odisha in the past is of remarkable significance. During occurrence of stomach disorders and diarrhoea diseases of any kind, people run after quacks looking for ethno-medicines. This may be the indirect reason for exploration/exploitation of botanicals. Interestingly, a single plant *Kalanchoe pinnata* (Lamk.) Pers., locally known as *Hemasagar/Basamapatri/Hemakaakara/Amarapoi*, is known even to a child of Odisha as the top most remedy against diarrhoea being not reported from any other state of India as per earlier review (Mohanty et al. 1998). The 74 plants reported from Odisha are depicted in Table 1.

Significantly, out of 421 ethno-medicinal botanical, 8 plants such as *Andrographis paniculata* Nees, *Asparagus racemosus* Willd. *Hemidesmus indicus* (L.) R. Br. *Achyranthes aspera* L., *Alstonia scholaris* (L.) R.Br., *Calotropis gigantea* (L.) R.Br. ex Ait, *Oroxylum indicum* (L.) Vent., and *Tridax procumbens* L. are reported more than 7 times from different communities by different authors (Das et al. 2003). Interestingly, even though these 8 plants that have various utilities, they have a common cause for diarrhoea. This again reinforces the human inquisitiveness to search for a drug molecule under various induced stress condition.

However, appreciation with satisfaction cannot be extended for such ethno-medicinal exploration, as it is a product of over-religious activity.

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NOTE

This work is a resubmission of the contents of the paper - Dash and Padhy 2006, to emphasize and focus on the basic theme of the caption "Over-Religious Activity, a Threat to Biodiversity". This shows that such activity was in the past related to religious func-

tions as it is in the present time, published earlier in the last series of publications (1-5).

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