

## Traditional Method of Reproductive Health Care Practices and Fertility Control among the Bhumija Tribe of Baleswar, Orissa

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**ABSTRACT** The present paper makes an attempt to focus on the traditional medicine used by the Bhumijas of Baleswar for reproductive health problems and fertility control. The study reveals that eighteen plant species belonging to fifteen families are being used as traditional medicines to cure different reproductive health problems. The village medicine men, who have a good knowledge about the herbal medicines usually treat the patients. Many elderly persons of the village and the experienced women who attend the deliveries are also aware of the importance and use of such herbal medicine. Various plants and plant-parts are used for the preparation of medicines. It is found from the present study that though the traditional reproductive health service is generally affordable and easy to access yet the younger generation is getting influenced by the modern medicine. Further, due to the process of urbanization and culture contact, there is always a threat to the indigenous knowledge. Hence, there is an urgent need to execute a revitalization strategy for protecting the indigenous medical knowledge from complete desertion.

### INTRODUCTION

India is the second largest country in the world in respect of human population. Over 550 tribal communities are covered under 227 ethnic groups residing in about 5000 villages of India in different forests and vegetation types (Sikarwar 2002). Orissa has 62 different Scheduled Tribes with over a million tribal populations. They have a very good knowledge of the plant resources, based on generations old experience. Our knowledge of intimate relationship between man and plants in his immediate surroundings has been passed on to us mainly through surviving tradition (Jain 2004). However, with the passage of time and development of technological medicine and health infrastructure this knowledge is under serious threat.

The traditional knowledge about the use of the naturally available plants and their products has been transmitted through oral communication within the society and has passed from generation to generation. The uses of various plants and their products have been reported for post delivery care by Kaur (1999).

In recent times, with the increased knowledge of life and culture of the tribal communities, the social scientists are taking interest in ethno-medicinal studies. Many works have been reported, specially from among the rural and tribal communities of India (Bhadra and Tirkey 1997; Sharma Thakur 1997; Choudhury 2000).

Ray and Sharma (2005) have given a description of ethno-medicinal beliefs and practices prevalent among the Savaras, a tribal community of Andhra Pradesh. Kumari (2006) gave an account on the concept of illness and disease and the application of folk medicine among the Sauras of Jharkhand.

A number of organizations within India are concerned with maintaining India's Traditional Medicine System. Recently the importance of these traditional medicines has been realized worldwide as some of them proved to be more effective (Marini-Bettolo 1980). Nearly 80% of the world population depends on traditional medicines, most of which involve the use of plant extracts (Sandhya et al. 2006). In view of the importance of traditional medicine which provides health services to 80% of the world population, increase demand of herbal drugs by the pharmaceuticals and depleting natural plant resources, it is high time to document the medicinal utility of less known plant available in remote areas of the country (Zaidi and Crow 2005). Moreover, the health care scenario in urban India as well as globally, is undergoing dramatic transformation, evolving into a new emerging situation that emphasizes preventive health, customized care, body-mind medicine and the use of natural products (Bodeker et al. 2005).

Studies on traditional medicine in Orissa, though started only recently, have given very

encouraging results and is gaining momentum with more and more botanists taking the subject seriously. Noteworthy contributions on the subject in hand are those of Jain (1971), Pal and Banerjee (1971, 1974), Saxena and Dutta (1975), Mudgal and Pal (1980), Saxena and Brahman (1994), etc. However, limited tribe-wise or ethnographic explorations have been done in the state. Only a few studies (Saxena et al. 1988; Pandey et al. 2000, 2002; Pandey and Rout 2003; Rout 2005) have been carried out on the tribals of the state who utilize a number of medicinal plants available in the forests, as treatment of various diseases. But the information on plants used for reproductive health and fertility control is meager in these publications. However, in a study, Dash and Dash (2003) have observed that although a large number of plants are associated with food, economy and religion, the use of plant species as traditional medicines are dominant in the entire tribal society. The state has one of the oldest and richest cultural traditions of using medicinal plants. The tribal people of the state still depend on the common traditional ethno-medicine for their day to day primary health care. These medicinal plants gain further importance in the region where modern health facilities are either not available or not easily accessible. Guite and Acharya (2006) have shown that the acceptance of a particular health care system among the tribal people mostly depends on its availability and accessibility.

So far no work has been reported on traditional medicine on reproductive health of the Bhumija tribe of Baleswar. However, Kabikanya and Dash (2003) have reported on the Bhumija Perception of Health and Health Care System in a unique socio-cultural system of Jajpur District of Orissa. Therefore, it is an urgent need for documentation of their traditional knowledge. The present work concentrates on the traditional medicines used by the Bhumija women of Baleswar for reproductive health and fertility control.

#### **MATERIALS AND METHODS**

The authors have conducted an intensive exploration to collect data in the tribal (Bhumija) dominated villages of Baleswar District. Five villages of Remuna Block namely, Phulkiary, Jodabari, Ghatgharsahi, Jambani and Gudgudia and three villages of Nilagiri Block namely,

Chaturkhunta, Chandipur and Makhapada of the district were covered. Rapport was established before data collection. The data were collected from the village medicine-men whose treatments are believed to be very effective and also from the local knowledgeable elderly persons and from the old women who conduct the delivery. The medicine men and the elderly persons of the community were interviewed for recording the local names, plant parts used, purpose of usage and the method of administration. In the collection of data, no structured questionnaire was used. Medicinal properties of plants were learned through in-depth, informal interviews. A number of group discussions were also conducted during the period of investigations. Data collection was carried out during 2007-08.

In the following enumeration, the botanical name of the plants have been arranged alphabetically followed by FAMILY within parenthesis, local names in Oriya, locality of collection, plant parts used for medicinal purposes and their mode of use.

#### **RESULTS AND DISCUSSION**

Earlier, in the tribal societies, the use of traditional medicines was predominant. But with time and advent of modern medical facilities, the traditional medicine is losing its efficacy. Available evidence (Table 1) indicates that traditional medicines are involved in providing reproductive health care and fertility control. The use of traditional medicine for reproductive health care is due to subsisting cultural beliefs, as they consider pregnancy and pregnancy related problems as a natural occurrence.

The tribals are not interested in sharing their knowledge with outsiders. After developing intimacy with some traditional healers and experienced women, some information on traditional medicine could be collected and presented in this paper. In the present study, eighteen plant species, of fifteen different families, are being used for different reproductive health problems and for fertility control. The version of the villagers revealed that people have been shifting from traditional medicine system to modern medicine system. This is due to the effectiveness or quick action and easy availability of modern medicines. The present paper has highlighted the plants and plant products used as

**Table 1. Important medicinal plants used by the Bhumija women for reproductive health and fertility regulation**

S. No.	Scientific name and (Family)	Local name/ Locality	Plant part used	Purpose of use	Mode of use
1.	<i>Abrus precatorius</i> (FABACEAE)	“Kaincha” Chaturkhunta	Seeds	For contraception	Seeds soaked in un-boiled cow milk at night and taken in the morning.
2.	<i>Annona reticulate</i> (ANNONACEAE)	“Ramphala” Gudgudia, Jambani	Seed	For aborting pregnancy up to 3-4 months	Seed powder mixed with black pepper ( <i>Piper nigrum</i> ) is taken by the woman
3.	<i>Annona squamosa</i> (ANNONACEAE)	“Ata” Jadabari, Makhapada	Root	To induce abortion	Dried root powder is taken orally in the morning for five days.
4.	<i>Asparagus racemosus</i> (LILIACEAE)	“Satabari” Chandipur, Jadabari	Tuber	To initiate lactation	Fresh tuber paste is taken by lactating mothers
5.	<i>Bombax ceiba</i> (BOMBACACEAE)	“Semuli” Chaturkhunta,	Root	To regulate menstrual disorder and to promote conception	The root paste of young plant mixed with cow milk is taken in the early morning for one week
6.	<i>Borascus flabellifer</i> (ARECACEAE)	“Tala” Ghatgharsahi, Chandipur	Male inflorescence	For contraception	Mixture of burned male inflorescence, black pepper ( <i>Piper nigrum</i> ) and cow milk is taken by the woman
7.	<i>Crateva magna</i> (CAPPARIDACEAE)	“Barun” Gudgudia	Stem bark	For contraception	Stem bark juice mixed with black pepper ( <i>Piper nigrum</i> ) powder is taken by the woman in the seventh day of menstruation
8.	<i>Dillenia pentagyna</i> (DILLENACEAE)	“Rai” Chaturkhunta	Stem bark	For easy delivery	Tree gum is used by the experienced lady ( Dhai) for easy delivery
9.	<i>Ficus hispida</i> (MORACEAE)	“Dimiri” Chandipur, Jambani	Fruit	For milk secretion and also to prevent miscarriage	Fruit is boiled and given to mother
10.	<i>Hibiscus rosa-sinensis</i> (MALVACEAE)	“Mandar” Phulkiary, Chandipur	Stem bark, flower and leaf	For contraception, abortion and regulate the menstrual cycle and control excessive bleeding during menstruation	Mixture of flower paste, iron dust and country liquor is taken by the women on the days of menstruation for contraception, stem bark paste taken continuously for five days cause abortion, flower and leaf extract are used to regulate menstrual cycle
11.	<i>Millettia pinnata</i> (FABACEAE)	“Karanja” Chaturkhunta, Chandipur	Stem bark	To control excessive bleeding and gain strength after delivery	Extract of stem bark is taken and filtered and a heated iron rod is dipped into it and about half cup is given to the mother once in the morning
12.	<i>Nelumbo nucifera</i> (NYMPHAEACEAE)	“Padma” Chaturkhunta, Makhapada	Rhizome and Flowers	To reduce white discharge and to increase fertility	Decoction of rhizomes is taken by women in empty stomach for fifteen days
13.	<i>Oroxylum indicum</i> (BIGNONIACEAE)	“Phanphani” Chandipur, Ghatgharsahi	Stem bark	To control excessive bleeding during menstruation	Decoction of stem bark with common salt is taken twice a day for one month
14.	<i>Phyllanthus nodiflora</i> (VERBENACEAE)	“Kicharanga” Chandipur Makhapada	Root	For promoting sexual desire	Decoction of root with un boiled egg is taken by the woman
15.	<i>Ricinus communis</i> (EUPHORBIACEAE)	“Jada” Makhapada	Oil from fruit	For easy delivery and for reducing delivery pain	The oil is massaged gently on the belly
16.	<i>Saraca asoca</i> (CAESALPINIACEAE)	“Asoka” Chaturkhunta, Gudgudia	Buds	To increase fertility	Buds are taken orally with water
17.	<i>Tephrosia purpurea</i> (FABACEAE)	“Bana-Kulonthia” Chandipur	Leaf	To avoid post natal complications	Decoction of leaf mixed with honey taken by women twice a day for one month
18.	<i>Zizyphus mauritiana</i> (RHAMNACEAE)	“Barakoli” Jadabadi	Stem bark	To get relieve from abdominal pain during pregnancy	Stem bark paste is taken twice a day after food

traditional medicines for reproductive health and fertility control.

The Bhumija community is eventually ori-

ented more towards modern medicine as they believe that it gives a quick remedy, while it is paradoxical to see the modern world of late fo-

cusing more on alternative medicine which has a predominantly herbal base. The modern medicine has brought a revolution throughout the world but the plant based medicines have its own unique position. With the influence of urbanization among the Bhumijas and their awareness towards the advent of modern health care facilities and Government health measures, these people are becoming more interested in taking modern medicines instead of traditional herbal medicines. But still the prevalence of traditional medicines is observed in this tribal region.

The present study is based on the data collected from several villages situated in the urban fringe. The local uses of plants and plant products are common particularly in those areas, which have little or no access to modern health services. But, these people can easily avail modern medical facilities from the nearby town or District Headquarter hospital of Baleswar and it is found that the new generations is not very interested in the indigenous methods of treating diseases. They are not even concerned about the importance of these herbal plants and its medicinal values. Shankar (2007) has also highlighted that a section of the rural people in all social classes, including the poor are giving up traditional health practices and turning to western bio-medicine. For the rural poor, this replacement of tradition has serious economic consequences and socio-economic surveys indicate that the single and largest cause of rural indebtedness is health expenditure.

The observation also reveals that the Bhumijas use roots, stem, bark, flowers, rhizomes, leaves and seeds as the most common plant parts for medicinal preparation to cure different reproductive health problems. Although the information given by traditional healers is not comparable to the modern medicine, their efficacy is claimed to be high by the Bhumijas. Prasad (2007) draws attention to the choice of traditional treatment among the poor which is restricted and limited by a variety of factors such as affordability, accessibility and social distance. Despite all factors, the tribals are still using traditional medicines though the prevalence of these medicines is waning.

### CONCLUSION

The study reveals that the Bhumijas have vast knowledge about ethno-medicinal uses of plants

growing in their vicinity. It has been well revealed in this study that the Bhumija community has been changing at a certain pace along with their health seeking behaviour.

The tribals inherit a rich traditional knowledge about the flora investigated and apply this knowledge for making crude herbal medicines to cure different diseases. But it is observed that the traditional knowledge which formed the basis for the origin of alternative medicine also paved way to evolution of modern medicine. Now such indigenous knowledge is facing slow and natural decline. However, the study certainly points out that the traditional reproductive health care system still finds its meaning of survival in the tribal domain.

In this study, it is also found that though the Bhumijas are in favor of taking the modern medical facilities, the older generation still has inclination towards traditional medicine. Presently, very few elders in the tribal community practice traditional medicine, while the young generation knows little or nothing about the traditional medicine. If this trend continues, a few years from now, there will not be a single elder member in the tribal community who would speak on the traditional medicine. The growing disinterest in the use of traditional medicine for reproductive health problems among the younger generation will lead to disappearance of this practice. Therefore, greater efforts are required to document the rich traditional knowledge of the local people so as to prepare a comprehensive account of it. Wild plants and other natural resources used as traditional medicine unfortunately are being eroded due to the loss and degradation of their natural habitats or over harvesting for commercial purposes. Urgent measures for conserving wild genetic resources, as well as for kick-starting large-scale cultivation, are necessary (Shankar 2007).

Therefore, there is an immediate need to execute a revitalization strategy for protecting the indigenous knowledge from complete desertion.

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