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Tribal health care system of the gonds of Nuapada District of Odisha in India

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Abstract--The study of health care practices of the Gonds of Nuapada district of Odisha is one of significant aspects of the tribal health system of Odisha in Eastern India. As many as 62 types of Tribes are found in the state of Odisha, Among these, Gond is one of important tribes which noticed in the western part of Odisha. The Gond people of Nuapada are not conscious about their health and sanitation, for which they are facing different types diseases in their day to day life. The Gond community living in different eco-systems face health and genetic problems of varying natural. Nothing is known about the health and nutritional status and also about the medico-genetic problems which are prevalent among the primitive section of the Gond tribe as no comprehensive study of this nature has yet been undertaken among these sections of the Gond tribe. The present study centers round this problem and its coverage is limited to two different sections of the Gond tribe, one residing in Sinapali village of Nuapada areas of Nuapada district and the other residing in Komna village of Boden areas of Nuapada district. Gonds are endowed by nature with a well built physical constitution but not free from deficiencies and ailments. Different factors like socio-economic backwardness, lack of education, ignorance, old social customs and beliefs, unhygienic practices, malnutrition and semi starvation cause, physical suffering which are making their life worse. Sometimes, the unclean surrounding around Gond community living quarters become breeding ground for mosquitoes, flies and other harmful organisms and communicates diseases. Due to their unhygienic habits, the water of these sources gets contaminated and communicates various diseases. In most of the interior Gond villages of the Nuapada district,

traditional healing system is found prevalent among its people. The objective of this paper is to highlight the health care system and practices of the Gonds of Nuapada district of Odisha in India. Both the primary and secondary sources are methodologically used by the authors.

Keywords---Tribal, Health Care, system, Gond, Tribe, Nuapada, Odisha, India.

Introduction

The study of health care system of the Gonds of Nuapada district of Odisha is an important aspect of the tribal health care system of India. The Gond community of Nuapada in general are highly disease prone. The people of Gond tribe are affected by poverty, illiteracy, poor sanitation, lack of safe drinking water, blind beliefs, etc. It is known from the review of literature that there is a great need for research regarding the availability and accessibility of quality healthcare services for the tribal communities of Odisha as well as India. This is because the systemic and cultural barriers for most of these communities continue to exist. Spatial distance, cultural diversity and educational backwardness among the tribal communities necessitate community-wise studies (Merlyn D'Souza and Shivappa, June-2020, p.6172). India's poor tribal people have far worse health indicators than the general population. Most of the tribal people live in remote rural hamlets in hilly, forested or desert areas where illiteracy, trying physical environments, malnutrition, inadequate access to potable water, and lack of personal hygiene and sanitation make them more vulnerable to disease (The World Bank, 2012). India has one of the largest tribal populations in the world. The Government of India defined a tribal region based on certain characteristics, which include economically backward communities living in a primitive condition, having a distinct culture, primitive traits, socio-economic backwardness and usually away from the mainstream. Tribal populations are among the poorest and most marginalized groups in India and face extreme levels of health deprivation. They fall behind the national average on several vital public health indicators, with women and children being the most vulnerable. Tribal communities have been unable to fully accrue the benefits of various tribal health schemes and policies due to specific systemic and socio-economic barriers. UNICEF findings suggest that more than half of all maternal deaths in India occur in tribal and Dalit communities. Across the continuum of care, tribal women have poorer access to adequate maternal and child health (MCH) services than their counterparts elsewhere in India (Dasra's Report, 2016). In spite of the efforts of the government, these Tribal areas continue to suffer from poor maternal and child health services and ineffective coverage under national health and nutrition programmes. Research and data available through surveys have found that infrastructure like Sub-Centres, Community Health Centres (CHCs), Public Health Centres (PHCs) and others are less than required in the tribal areas (Ministry of Tribal Affairs, 2013). Report of the Expert Committee on Tribal Health (2018) is the comprehensive report on tribal health in India. It gives clear picture about present status of health and healthcare in tribal areas, causes of gap and also gives suggestion for the future to fill this. It states that there is a prevalence

of malnutrition, malaria, tuberculosis, cancer, hypertension and diabetes among tribal population (Merlyn D'Souza and Shivappa, June-2020, p.6176). Tribal people mainly depend on public care when they seek external health care. However, these health services are not appropriate and are poor in quality. The Committee has recommended to the Ministry of Health and Family Welfare as well as to the Ministry of Tribal Affairs for developing policies and programmes for providing preventive, promotive, curative and rehabilitative services in health sub centers in tribal areas (Merlyn D'Souza and Shivappa, June-2020, p.6176). Odisha is the State having the 3rd major number of tribal people inhabitants in India and is considered as the Homeland of tribal groups/communities.

Odisha has the unique distinction of having as many as 62 tribes including the 13 Particularly Vulnerable Tribal groups (PTGs) spread over different portions of the Odisha state. Human existence is divided into two parts: health and illness. There are various causes of illness, one of which is unsanitary environments. Hygiene is practiced at both the personal and communal levels. To improve one health, several sorts of medications are used (Sahay, 1892, pp.24-26). However, this does not diminish the significance of cleanliness and hygiene, which, if not strictly adhered to it may be responsible for a variety of diseases, including epidemics. Though the government has taken various initiatives and implemented several programmes for tribal welfare at both the macro and micro levels, these efforts can only be effective if community engagement at the local level is encouraged (Prasad & Sinha, 2012, p.24). The Gond people of Nuapada are not conscious about their health and sanitation, for which they are facing different types diseases in their day to day life. The Gond community living in different eco-systems face common and hereditary problems of varying natural. Nothing is known about the health and nutritional status and also about the medico-genetic problems which are prevalent among the primitive section of the Gond tribe as no comprehensive study of this nature has yet been undertaken among these sections of the Gond tribe. The present study centers round this problem and its coverage is limited to two different sections of the Gond tribe, one residing in Sinapali village of Nuapada areas, and the other residing in Komna village of Boden areas, Nuapada district (Prasad & Sinha, 2012, p.28). Gonds are endowed by nature with a well built physical constitution but not free from deficiencies and ailments, factors like socio-economic backwardness, lack of education, ignorance, old social customs and beliefs, unhygienic practices, malnutrition and semi starvation cause, physical suffering which are making their life worse. Sometimes, the unclean surrounding around Gond community living quarters become breeding ground for mosquitoes, flies and other harmful organisms and communicates diseases. Besides, the Gonds use polluted water from unprotected sources like tanks, canals, wells, perennial streams and rivers for their domestic consumption. Due to their unhygienic habits, the water of these sources gets contaminated and communicates various diseases. The general condition of health and disease among the Gonds is not satisfactory and it is not fully focused in earlier scholarly works. Hence, the present authors have taken a modest attempt in this article to highlight the health care system and practices of the people of Gond tribe of the Nuapada district of Odisha in India.

Materials and Method

The primary as well as secondary data are used in the writing of this article. The primary data had been gathered from Gazetteers, old stories, classic story, the pragmatic perception, popular sentiments, general feelings and meeting strategies at the time of field survey by the first author. The overall field study has been embraced for the assortment of information identifying with the health care systems of the Gonds of Nuapada district of Odisha in Eastern India. The present study used both primary and secondary sources. The primary sources of both oral and written data were used in this article. The Informants living in different villages of the five Blocks of Nuapada district; mostly elders and culture expert from each block, written documents and archival sources from the Nuapada district office; State Archive of Bhubaneswar and Government Communication Department, of Odisha, National Culture and Heritage Conservation Association, State Museum of Bhubaneswar, KISS Library, Bhubaneswar, KIIT University Central Library, unpublished theses data are used in the present research work. Material from SC&STRTI Library, Bhubaneswar, Odisha, District Library of Kalahandi, Nuapada, official records of the Nuapada district, as well as private documents were also used in the current research work. In general all the advantages of the primary and secondary sources were utilized.

The analysis and interpreting the data is going on as it is obtained. In analyzing and interpreting data the researchers sort out the raw data into the category they belong and give meaning to those data obtained from primary and secondary sources through narration, ethnographic analyses, thematic organization and triangulation.

As per requirement, both the primary and secondary sources have been used in the writing of the present article. The primary data have been collected from original texts, *Gazetteers*, literatures, reports, practical observations, hearsay accounts of respondents /informants through the interview methods during the period of experimental field survey, etc. For the collection of data, the scholars have used both qualitative and quantitative research methods such as field study, personal interview, telephonic interview, observation and taking photographs. The extensive field survey has been undertaken by the principal author for the collection of detailed information (data) with regard to the health practices of Gond people, Thus, for the collection of primary data relating to the current work, the empirical method has been adopted by the principal researcher.

Results and Discussions

Health Condition of the Gonds of Nuapada District

The Gond community in general are highly disease prone. Their misery is compounded by poverty, illiteracy, poor sanitation, lack of safe drinking water and blind beliefs etc. (Jena, 2013, p. 48). The areas where the Gond people lived villages or *Basties* don't have proper basic necessities such as drinking water ,electrification, communication, due to lack of basic amenities, they lived with negative condition in the interior areas the tribals in the study areas are in the habit of collecting minor forest produce extensively for their own consumption

and also for sale as a secondary source of income .the important items of forest collection include *Mahua* flowers and seed Mango, honey, Tamarind, *Harida*, *Amala*, Sal seeds and leafs various type green leaves mushrooms, edible roots and tubers, they also collect firewood, thatching grass, fibers for rope making and difference type of herb and shrubs of medicinal value for their daily life. They prefer rice as their main food, they fond of homemade wind for used(Jena, 2013, p. 56).

Tribal people have their own system of medicine and health care which is based on their own knowledge of herbs and shrubs and the traditional system like shamans (traditional medicine man) for diagnosing the diseases and treatment if the same. Their knowledge of medicinal plants makes them strong in fighting diseases (Islary, Vol.2 Issue 1, No. 1, 2014. p.25). There are belief and practices about the health care in the tribal community that makes them real custodian of the medicinal plants. The knowledge of medicinal plants is transferred from one generation to other generation through an oral culture. Their dependency on the herbal treatment is due to unavailability of health care services in the village and nearby areas and their belief and in the herbal treatment for centuries.

The common diseases and physical ailments of the Gonds of Nuapada are Malaria, Filariasis, Cold, Cough, Fever, Headache, Stomach Trouble, Skin Diseases, Pneumonia, Typhoid, Yaws, Piles, Influenza, Colic pains, Amenorrhea, Heavy Menses, Chicken-Pox, Boils, Hemispherals, Leper, Leprosy, Cancer, Anemia, Diabetes, Small-Pox, etc. Besides the above diseases, the Gonds also suffer from certain physical deficiencies. These are noticeable among the children and women in form of anemia caused by chronic malnutrition and under nourishment. Due to lack of essential vitamins in the diet defective eyesight is market, particularly among the children (Prasad, & Sinha, 2012, p.49). The Gonds have their own reasons to account for their ailments. They believe that all sorts of physical sufferings be fall upon human beings as a bad luck and punishment for irregular food and bathing habits; dishonest immoral and sinful deeds. Gonds attribute the root cause of diseases to the supernatural agencies. For instance, displeasure of the village deities and ancestral spirits can result in fever (Patnaik, 2006, pp.209-211). Certain ailments are suspected to be effected by the *Nazar* (evil eye), witchcraft, black magic, ghosts and evil spirits, miscarriage, hysteria, anemia, nausea and vomiting, menstrual and reproductive troubles in women; diarrhea, fever, stomach and digestive troubles in children; paralysis, mental disorders, digestive and respiratory troubles, headache, tuberculosis leprosy in men are believed to be caused by the displeasure of supernatural agencies. For treating diseases, the Gonds hardly take the help of the modern medicine and the traditional physicians. The diseases are believed to be caused by the supernatural agencies and first detected by observing certain physical symptoms of the victim through the help of the local priests, astrologers, witch doctors and magicians (Patnaik, 2006, p.391). Divination, rituals, offerings and sometimes animal sacrifices are performed to get immediate relief. The Gonds are less dependent upon the modern medical facilities available in their localities. The facilities are inadequate and the Gonds desiring a quick recovery cannot wait to undergo the complete course of treatment for their diseases.

Health Problems and Health Care Facilities of Gonds of Nuapada

The Tribal children, because of their poor state of health and nutrition, suffer from some common diseases like malaria, typhoid, stomach trouble, skin diseases, viral infections, etc. When they fall ill their friends and teachers take care of them and they receive medical treatment from the local health center at Kamapur. The costs of medicines for children/ students are met from their monthly stipend amount, which is very small. If the sickness is prolonged and the cost of treatment is higher the responsibility of treatment is transferred to their parents. In some cases, the care and treatment of sick students are not attended to properly neither by school nor at home. Since a sick student cannot become regular and attentive in his/her studies, he/she ultimately gives up his/her studies (Mishra, and Mishra, Vol.41, 2006, p.100). Health means human natural condition living in accordance with natural laws relating to the body as well as mind. The environment health is now recognized as birth right of all citizens. The health care practice of Gonds of Nuapada district are also prescribed by its local traditions like beliefs, customs, practices, literacy and prevailing health care facilities. The Gond people are claimed a common ancestry, sharing a common culture and language. They were an ancient Gond community of Nuapada District. They mostly live in plain and forest areas. They strongly believe in supernatural spirits and black magic for any of disease (Mishra, and Mishra, Vol.41, 2006, p.104). They like to worship their home God *Debata*, then they sacrifice birds and animal for curing their health problems, another way they used to going Magic-religious specialists (*Gunia*) house for *Jhada Phumka* for curing disease. Now-a-days some Gond people are going to Government hospital for their treatment of diseases. The tribal people of Nuapada District are not conscious about their health condition. Before taking food they never wash their hands in soap. Plain water and soil is used to wash their hand after defecation / urinary used (Prasad, & Sinha, 2012, pp.7-8).

Preparation Herbal Medicine by the Gonds of Nuapada

Preparation medicine also has lot typical behavior associated with it. The medicine specialist prepares his medicine facing east which is marked by holy direction. The people of Tribal villages believe that medicine plants have certain intrinsic, qualities such as hot, cold, bitter, sweet, sour, pungent which are the effective active principles for healing disease. Now-a-days they are willing to avail modern medical facilities due to non-available of traditional practices of medical care. They also have developed a faith on modern medicines and injections (Worley, 2019)

The Folk Medicine used by the Gonds

The *Kabiraj* also known as village medicine man, they provide some herbal medicines for all sort of common diseases. Kabiraj also reveals some interesting procedure for the diagnosis of the disease. Kabiraj of this village provides medicines for malaria, jaundice, stomach pain, joint pain, etc. (Ram, 1986, p.110). He used to go to forest and collect some fruits and roots of the trees and prepare some medicines as per his knowledge.

Neem- (*Azadirachta indica*). The bark was bitter and nearly every part is used medicinally in intermittent fever and as a tonic oil from seeds is used in parasitic skin diseases and for dressing foul ulcers, bark, leaf and seed also used in snake bite and scorpion sting.

Bel- (*Aegle Mamelos*):- Pulp of ripe fruit aromatic cooling, laxative, unripe or half ripe, fruit astringent, digestive, stomach-ache and diarrhoea (Bapat, 1950, p.57). Peepal (*Ficus religiosa* (Linn)):- Bark astringent, used in Gonorrhoea, fruit laxative, seeds cooling alternative, leaves and young shoots purgative, infusion of bark given internally in scabies.

Mahua (*Madhuca indica*):- Bark was used as decoction as astringent & tonic. However yields a spirit which is astringent tonic, appetizing regarded as cooling tonic, nutritive, used in coughs in form of a decoction (Narma, 1961, pp.177-181). Indigenous people perhaps everywhere consider ritual remedies for diseases caused by supernatural agents, and counter magic for those caused by witchcraft and sorcery practices. When patient suffers from certain chronic diseases like T.B. stomach pain, high fever is believed to have caused for bad deeds in past life. When a patient suffers from high fever, the villagers believe it as a course of Goddess Pradeshen. As a remedy they used to visit the *Pujari / Gunia* and perform some Pujas as per their advice. In order to appease the village deity and ancestors they used sacrifice hen/goat and also offer some feast to villagers (Wills, 1919, p.87).

Disease Patterns and Health Concerns

Tribal people are known for living in isolation from the mainstream society as well as from among themselves. They have their own traditions and practices related to beliefs, means of livelihoods and health practices (Wills, 1919, p.90). Disease or illness as aforementioned is generally understood among them as incapacitation of an individual from performing one's work. It is this 'functional' concept of health and illness coupled with their habitation characterized by backwardness and terminus ecological niche, blended with lack of awareness, ignorance, and lack of personal hygienic practices that often make the tribes have disease patterns and health concerns that are specifically of them. These health concerns have to be addressed specifically each with different strategy. It becomes thus a challenge and a task in addressing this concern. Some of the disease patterns and health concerns among the tribals are discussed below (Bose, 2007, p.67).

Problem of Health Nutrition of the Gonds of Nuapada

The problem of poor health, malnutrition, sanitation and scarcity of drinking water in the Gond people have already been described in the problem of health nutrition of the Gonds of Nuapada. The Gonds suffer from a number of diseases. Their basic problem in their social disability as well as their reliance traditional health practices and indifference or lack of means to avail the health services located Nuapada district in their areas (Datt, 2011, pp.240-245). The first step in this regard is to make a survey in order to assess their present conditions of health, nutrition and sanitation and drinking water supply and suggest suitable health services to meet the problems. There many Gond women skill in the art of

traditional midwifery, who have been rendering valuable service to the rural community. These traditional health functionaries should be identified and their skill experience in midwifery further promoted providing training along scientific lines and their services utilized in the locally established medical institutions (Meheta, 1984, p.23).

Particularly the Gond women and children are the victims of malnutrition. The best remedy for this is the midday meal which is to be provided to the children at school and Anganwadi which is to be set up in Gond community to take care of the vulnerable section of the Gond community of Nuapada, district (Meheta, 1984, p.26). In western Odisha, Gond people are habituated to drink water from polluted source of water supply such as *Patta* or tanks. More sinking of wells in the villages would not solve the problem, unless the Gond people are made to change their habit of using water pure water from wells. The necessary condition for effecting a change in this field is that wells should be dug in the Gond *Bustees* and as education spreads and understanding develops. It is likely that a change in the habit may take effect (Mishra, 1987, p.64).

Health Status and Diseases of the Gonds of Nuapada

From the present study the following health problems have emerged the matters of health and sanitation the section of the Gonds residing in Nuapada areas are more backward and ancient. Their knowledge regarding health nutrition is rudimentary. Their isolation and backwardness and their faith and reliance of the traditional magic-religious methods are the main reasons for the low degree of awareness about modern medical practices. Other factors which attribute to poor health are the lack of environment sanitation and personal hygiene, poor living condition, including improper ventilation and the like. Consciousness regarding bodily cleanliness is lacking among the Gonds of Nuapada particularly among the children and women, lack of personal hygiene causes skin diseases and other infections (Paramahansa, 1975, p.90). They do not take bath for days together and most of them do not brush their teeth and therefore dental and skin diseases are most common among the Gonds of Nuapada. As regards the personal cleanliness, the Gonds of Sinapali Block of Nuapada are not so unclean as compared to the Gonds of Nuapada (Patel, 1992, p.57). There is no well in both the villages and the people drink water from the hill streams. Water of the hill streams is used in both the areas for multifarious purposes such as washing clothes, bathing, washing their body after defecation, scrubbing their cattle, cleaning their utensil and also for cooking food and drinking. This explains why water-borne diseases viz; diarrhea, dysentery (amoebic and bacillary) and other gastro-intestinal disorders are very common among the Gonds of both the areas. Moreover, water of the hill streams in Komna areas is not only polluted but also has high content of graphite which causes irritation gastro-intestinal tract resulting in gastric discomfort abdominal pain, hyperacidity and constipation (Karl, 1994, p.87).

Traditional Belief of Gonds regarding diseases and Methods of Treatment

The Gonds of both Boden and Sinapali areas generally believe in the prevalence of benevolent and malevolent spirits which influences the life in many ways. The most important functionary which concerns us most in the context of health

cultural is the which-doctor; he is called *Daktar* in Boden areas and *Pujhari/Pujharini* in Nuapada area. The which-doctor knows the techniques of counter-acting the evil effects of black magic and appeases the malevolent spirit which cause and death. The Gonds also follow several taboos concerning social and religious customs. They also believe that any breaches of such taboos illness, causes illness and death.²⁸ However, things are changing in the Gond community with considerable rapidity. Though their faith on their traditional medicine man has changed least the Gonds of the study areas have shown inclination towards modern medical practice. During the field work in both the villages it was apparent that the Gonds are becoming favorably oriented towards modern medical practices (White Read, 1980, pp.35-39). There is no significant cultural resistant to acceptance of these practices provided they are efficacious and are available and accessible to them. In fact, apart from initial inhibition the major handicap is poverty, which does not afford tribals to seek medical help when he is ill.

Gunia of the Gonds

The *Gunia* is priest cum shaman. As a priest, they worship some god and goddess in home like Kantha Mahapuru, Bolanimaa, etc. Sometimes they take the patient to the village deity and sacrifice some animals. They also sometime provide treatment for Malaria, headache fever, etc. (Allegranzi and Pittet, 2009, pp.10-15).

Pujari of Gonds

Pujari is popularly known as priest. He worships in village temples and also visit the houses on demand to perform some puja. Though villagers visit him at the time of any illness but he does not work as medicine man or like *Gunia*. Only in few cases villagers used to bring their kids if they suffer any kind of evil eye. Pujari used to do some *mantra* (*Jhada punka*) and tries to cure the patient (Dalton, 1960, p.87)

Black Magic (Sorcery)

The illness is believed to be caused by human agents through magical means. These categories are divided according to the type of causative agents recognized by tribals. Sorcery is a magical practice and it plays an essential role in the beliefs of the natives as main cause of illness. This act is performed by magicians (*Gunia*) upon some individuals to harm by acquiring body parts like hair, nails, etc. (Mahesh, Vol. 2, 2016, p. 42). The effect of these magical as well as paranormal forces leads a man to become weak, later that resulting in body drying up.

Health Hazards of Gond Community

Malaria

Malaria is very common among the Gonds of Boden areas and more so in the study village and manifest it is typical clinical symptoms. All the blood samples were tested for the detection of malaria parasite, with the help of hick as well as

thin blood films the incidence of positive case with malaria parasite in the blood smear was not very high positive cases (Mahesh, Vol. 2, 2016, p.44). All of them belong to the species *Plasmodium falciparum*. But clinically with the help of past history of the illness (anamnesis) and through clinical examination it was found out that at last 35 persons were suffering or had suffered in the recent past, from malaria infection. Presumably the hilly areas of the Block Komna of Nuapada region are hyper endemic for malaria infection. The Gonds of Nuapada has been possible exposed to malaria infection for the last several 76 years and as a result such mutation might have occurred in them. The heterozygous advantages in affording protection against malaria, particularly against *Plasmodium falciparum* is known and this possible must be the genesis of such a high incidence of sickle-cell disease and red-cell enzyme G-6 PD deficiency among the Gonds of the Komna area. Malaria is the foremost public health problem of Nuapada District contributing 23 per cent of health cases (Negi, & Singh, 2018, p.219, 226). The tribal population is badly affected by malaria, more than 60 per cent of tribal population of the Nuapada District lives in high-risk areas from malaria. Infestations are the major public health problem. As observed in most these infections are due to indiscriminate defecation in the open field, bare foot walking and lack of health awareness and hygiene.

Diarrhea Disorders

Water-borne communicable diseases like gastrointestinal disorders including acute diarrhea are responsible for a higher morbidity and mortality due to poor sanitation, unhygienic conditions and lack of safe drinking water in the tribal areas of the district. In a cross sectional study conducted by RMRC, Bhubaneswar in four primitive tribes of Odisha (including Nuapada), the diarrheal diseases including cholera were found to occur throughout the year attaining its peak during the rainy season. Generally the infants, preschool children and adolescent groups are mostly affected micronutrient deficiency. Nuapada is very much infamous for starvation death cases (Das, 1964, p.65).

Skin Infection

Skin problems like scabies is a major health problem amongst the population of the district and the problem is much worse in the primitive tribes because of overcrowding and unhygienic living conditions as also close contacts and lack of health awareness (Kumar, 2002, pp.90-94).

Intestinal Parasitism

Intestinal protozoan and helminthic infestations are the major public health problems. As observed, in most of these infections are due to indiscriminate defecation in the open field, bare foot walking and lack of health awareness and hygiene. The problem is enhanced in the rainy season. These are preventable with repeated administration of antihelminthic and protozoal treatment at 4 months interval which can be used effectively in national parasitic infection control program (Datt, 2011, p.331).

Fluorosis Problem

Nuapada is reported earlier for its acute fluorosis problem. It is observed that fluorosis problem is prevailing in all the four blocks except the northern Nuapada Block. But with increase in population and increase in use of ground water more fluorosis-affected areas are reported. Study in 2005 reveals that endemic fluorosis areas exist in Sinapali, Komna, Boden and Khariar Block except the Nuapada Block. In Nuapada area the source of fluoride is the alkaline rocks and granite (Datt, 2011, p.333). In Nuapada district wherever these rocks are present there are chances of occurrence of high fluoride. The fluoride content varies from 0.14–7.2 mg/l. In Jagannthpalli–Haripur and Kirkita area for the first time fluorosis problem is reported. In Jaramunda village of Bhela grampanchayat also fluorosis problem is reported. Recently acute fluorosis problem is reported from Nangalbor Grama Panchayat of Sinapali Block of Nuapada.

The prevalence of protein calorie-malnutrition among the Gonds of Barlu was more compared to the Gonds of Kurlu the prevalence of the signs of vitamin 'A' deficiency of the Gonds of Kurlu was much lower than the seen among the Gonds of Barlu. As in the cases of vitamin 'A' deficiency sign were comparatively less among the Gonds of Kurlu. The considerably lower prevalence rates of vitamin 'A' and vitamin 'B' complex deficiency sign seen among the Gonds of Kurlu may perhaps be attributed to the practice of including green leafy vegetables in their diets, which would have contributed fair amount of both 'B' carotene and riboflavin (Datt, 2011, p.336).

Implementation of Government Scheme for the development of Health of Gonds

Reproductive, maternal, Newborn, child and Adolescent Health (RMNNCH+A) Programme essentially looks to address the major causes of mortality among women and children as well the delays in accessing and utilizing health care and services. It also introduces new initiatives to address the issue of anemia across all age groups and the comprehensive screening and early intervention for defects birth disease and deficiencies among children and adolescents (Dandub , Vol.9; Issue: 3; March 2019, p.78).

Rashtriya Bal Swasthya Karyakram (RBSK)

Rashtriya Bal Swasthya Karyakram (RBSK) is an important initiative aiming at early intervention for children from birth to 18 years to cover 4 Ds Viz. defects at birth deficiencies diseases development delays including disability early detection and management disease including deficiencies bring added value in preventing these conditions to progress to its more severe and debilitating form (Datt, 2011, p.320).

The Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)

The Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) was announced with objectives of correcting regional imbalances /reliable tertiary health care service and also to augment facilities for quality medical education in the country by

setting up of various institutions like AIIMS and upgrading government medical college institution (Datt, 2011, p. 343).

Reproductive Child Health (RCH)

The responsibility for implementation of the programme directly devolves on Assistant District Medical Officer (family welfare) who works under the supervisory of CDMO. He is in charge of the District family welfare bureau and support by many staffs. He is responsible for implementation of reproductive health, maternal health, child health and adolescent health programme in the district (Wills, 1919). In maternal health programme, District has given much importance to improve institutional delivery in order to check the maternal and child death. Janani Suraskha Yojana and Janani Shishu Suraskha Karyakram are being introduced under NHM. All services are made free to the beneficiaries under schemes and also cash benefits are given to the pregnant women for institutional delivery (Rs-1400 for rural area and Rs-1000 for urban area)

Janani Suraksha Yojana (JSY)

Janani Suraksha Yojana (JSY) is a safe motherhood intervention under the National Rural Health mission (NHRM) being implemented with the objective of reducing maternal and Neonatal mortality by Promoting institutional delivery among the poor pregnant women (JSY) integrates cash assistance with delivery and post delivery care. The scheme would be determined delivery by the increase in institution delivery among the poor families. The Scheme provides cash assistance to Mother's who have delivered in Government Health Institution. All mothers from rural area irrespective of age birth BPL, APL will get a cash assistance Rs-1400 if delivery is happened in Government Hospital (Wills, 1919, p.340).

Biju Swarthy Kalyan Yojana

The Biju Swasthya Kalyana Yojana launched on 15 August 2018 aims to provide universal Health coverage, with special on health protection of economically vulnerable families. It has two components. A free health service to all (irrespective of income, status or residence) in all state government health care facilities starting from sub center level to Government medical college and Hospital and all government blood bank level all treatment is cashless and no documents is required to be produced (Bailey, 1960, p.121). This scheme is recently introduced by the Government not only for the benefit of tribal community but other community also included for their health facilities.

Role and responsibilities of Accredited Social Health Activist (ASHA)

ASHA will be a health activist in the community who will create awareness on health and its social determinants and mobilize the community towards local health planning and increased utilization and accountability of the existing health services. ASHA would be a promoter of good health practices and it will also provide a minimum package of curative care as appropriate and feasible for that level and make timely referrals. Her roles and responsibilities would be as follows

(Narain,1986, p.92). ASHA will take steps to create awareness and provide information to the community on determinants of health such as nutrition, basic sanitation & hygienic practices, healthy living and working conditions, information on existing health services and the need for timely utilization of health & family welfare services.

Sanitation System in Tribal Areas of Nuapada

The Safe drinking water and proper sanitation and hygiene practices are critical for survival in all stages of an emergency; people are very susceptible to illness and death from water born disease (Mishra,2012, pp.157-175). Women and children are particularly at risk because they are usually the largest percent of the poorest of the poor and comprise the majority of rural areas urban slums and displaced population. In many cultures men have priority in the distribution of limited food and drinking water. While coverage drinking water is high the equitable access to drinking water and water safety remains a major concern. Major reason for perpetuation of disease like diarrhea, gastroenteritis, amenia and jaundice can be attribute to the non-availability of safe drinking water with poor sanitation facilities and practices very poor in the district (Nanda. Vol. 4, 1992.p.89). Drinking water and sanitation is a potent component of life and its quality is directly related to the efficacy of personal and community life. It is the most important aspect on which health completely depends. Water is life and we cannot live without it. Pure water is highly essential for our life but Gond people have no such knowledge and they manage themselves with the water they get from their nearest surroundings (Hay, and others, 2016, pp.1753-1758). The water is used for multifarious purposes such as cooking, drinking, washing clothes, bathing, defecation, scrubbing their domesticated animals and also for cleaning their utensils. Pig and buffaloes lie down in the stream water most often, which makes the water impure. Besides the stream and pond, water always carries decomposed leaves and other vegetative matters, which provide an appropriate milieu for the breeding of various kinds of parasites. It is for this reason that incidence of diarrhea and stomach related diseases are very common with these people. To eradicate water problem, Government has sunk tube well and deep bore well in the tribal areas (Singh, 2008.p.15). However, the surroundings of the tube wells, as well as wells, are swampy, dirty and utterly unhygienic as the used water stagnates and people also throw all sorts of dirty materials and also often toilet there. Besides, sometimes people take bath over there sometimes, housewives clean utensils, dirty linen and anal washing of children after defecation around the tube wells and well. The polluted surrounding and water are said to be the main causes of a number of diseases.

Environment Sanitation

The Gond people keep their main street, lanes and by-lanes fairly neat and clean. The *Jhadudhar* (sweeper), appointed from the *Gohur* community sweeps the streets everyday and dumps the garbage's at a spot not far from the dwelling. During rain water accumulates on the lanes and the area become muddy and filthy(Singh, 2008.p.20). The dwellings are not kept tidy as the inmates practically do not get time to look after their household belonging as they spend most of their time on the *Pahada* only on festive occasions. Houses are cleaned and wells are

plastered with clay mixed with fresh cow dung. The yard utilized as defecation ground, is not far from habitation but it does not pollute the environment due to hand of pigs in a large scale. Water for consumption is fetched from the perennial stream *Nala*, flowing beside most of the villages. During rain, muddy water is drawn from the stream for all purposes (Singh, 2008.p.27).

Hygienic Habits of Gonds

The Gonds lack modern scientific sense of hygiene. Bath is not taken every day and no schedule time is there for that. During summer, bath is taken if time permits, but for months together bath is not taken daily in the winter. Once they climb hills in the morning to reach their *Pahad* plots and start working (Mishra, Vol.3, 2006, p.10). They do not feel to climb down again to the stream to take bath. Apart from a few well-to-do families, soap is not used for cleaning clothes or body by other. *Khalia Mati* (*Khalia* a local variety of clay) is used both by men and women for cleaning hair as and when time permits. With the help of fine ash dirty clothes are treated with warm water and then rinsed and cleaned ones in a month by the ladies in the stream. Male never washes clothes, since it is considered as a feminine job and hence derogatory for men. Nails are pared after a month or two. Hair too, is cut after two months or so. They cut each other's hair as there is no professional barber (Pandita, Vol.12, 2005, p.15).

Diseases and treatment of Gonds

It would seem that almost all the Gonds are a superstition folk who believe that the diseases are mostly cursed due to the wrath or displeasure of a deity or ancestral spirits. Even any mishap or accidents is ascribed to the indignation of different god and goddess (Ganguly, Sharma and Bunker, Vol.2 (4), 2015, pp.152-160). They, therefore make, every effort to appease these supernatural agencies who are associated with different deities, spirits, etc. A functionary, known as the *Gunia* who normally belongs to their own community plays an important role in the diagnosis and treatment of disease of the Gond community. On the other hand, the *Gunia*, who is a *Shamanin* and who is also supposed to cure disease, traces out the deity behind the disease.

Medical Therapy

Though all the diseases are considered to be outcome of the wrath of deities and spirits, the Gond still consider some of the minor disease like fever (*Jara*), headache (*Mund batha*), cough (*thanda*), stomach pain (*Peta batha*), etc. to be the result of natural causes and skin disease to be due to contagion. But diseases which are incurable and prolong for number of days are ascribed exclusively to the obsession of spirits and deities (Rajpramukh, 2012.p.7). It is believed that due to commitment of immoral action or complete violation of the social norms, a person is destined to suffer. However, the *Dishari*, who mostly uses herbal medicines collected from the nearby forests, applies them in following manner for different diseases. Seed of *Ghikairi* tree are collected. The skins of the seed are taken out. Root of *Kekaya* plant is mixed with skin of the *Bhumi leem* seeds and ground together. The entire substance is diluted with water and used twice a day to get rid of cold. Roots of *Kumdi* plant and root of *Bhusana* plants are pulverized

together and they mixed with water. It is taken for three to four times a days. It is a curative for any sort of gastro-intestinal disease (Reddy, 2011.p.12).

Mental Therapy

Therapeutic treatment through magic is practiced by individual effort in the areas *Gunia*, the *Shamanin*, through white magic takes up treatments of mental illness. People also believe that through magical diagnosis the disease can be cured and therefore, attach importance to it. It may be stated at the outset that, *Shamanin* as such, is actually a part of religion nexus because it is through a ritual process, the end is achieved. The key of idea is to ward off the evil spirits and deities as well as to appease them with appropriate rites and sacrifices. Through this appeasement when the desired end is achieved, it may be called sympathetic white magic (Rai, 1986.p.110).

Unhygienic System in Gond areas of Nuapada

Most of the Gond people of Nuapada are found to be resided in the unhygienic places due to their illiteracy and unconsciousness. Some suggestions of the present scholar are given below.

- Since the Gonds people started the domestication of animals.
- The government should set up safe hygienic toilets to the Gond.
- Safe and clean water should be provided to the people.
- Education should be given at school level regarding the health, hygiene and sanitation.
- Involving the youth of the community in sanitation movement is highly necessary and they should be trained regarding maintenance of their drinking water sources, masonry work to construct the drain, soakage pit and toilets.

Headquarters' Hospital, Nuapada

The main Hospital was set up at Nuapada in 1936 as Sub-Divisional Hospital of the Kalahandi District. After bifurcation of the district in 1993 it was declared as District Headquarters Hospital and comes under the Chief District Medical officer of Nuapada. Application Development and Management Outsourcing (ADMO) of the district is directly responsible for its administration (Mishra, 2005, p.34). He is assisted by 30 Medical Officers including 15 specialist, 42 Staff Nurses, 03 pharmacists, 03 Lab technicians, 03 other technician and required number of technical personnel (Mishra, 2005, p.40). The Directorate of Health Services (DHS) has sanctioned 120 beds but based on the demand of the people and high case load, presently it is accommodating 150 patients. The beds are allotted into separate wards like surgical, Medicine, Maternity, Paediatric, Eye & infectious wards. In addition, there exists two Operation Theatre. A pathological laboratory, a post mortem room, a six bedded Intensive Care Unit (ICU), 12 bedded Special Neonatal Care Unit (SNCU), 10-bedded Nutritional Rehabilitation Centre (NRC), One Blood Bank and One out patient department are available in the DHS. Facility for X-ray and anti rabies treatment is made available here. A physiotherapy unit is also available for the patients at DHS. Apart from all these,

there is a telemedicine centre in DHS for video consultation in need with the senior specialist of medical colleges & hospitals (Sanjoy, 2011, p.12).

Primary Health Centers

The district has 17 Primary Health Centres to provide out-patient services to the patients (Devi, 2013, p.132). Each PHC (N) is managed by a doctor, an Ayush doctor, one pharmacist and an attendant. The PHC (N) has no sanctioned bed. But in order to increase the institutional delivery in the district 3 PHC (N) are declared as delivery points and 6 PHC (N) are indentified as promising delivery points. The out patients treated in the PHC (N) in last five year is given below (Datt, 2011, pp.70-81).

Evangelical Hospital, Khariar

The Evangelical Hospital at Khariar (otherwise known as Mission hospital) was opened in 1924. It is a private hospital managed by West Utkal Group Management committee of the Eastern Region Board of Health services within the Churches of North India. The expenditure of the hospital is met from the fees charged on the patients. The hospital provides accommodation for 120 patients. Its staffs constitute one Surgeon (Administrator), one ophthalmologist and other duty doctors, Nurses, Laboratory Technicians, ray Technicians and adequate number of non technical personnel.

Conclusion

We can conclude from the above facts that the Gonds believe in supernatural spirits and black magic for any of disease like other tribal communities of Odisha. In the past, the Gonds used to sacrifice birds and animal for curing their health problems, another way they went to *Gunia* house for *Jhada phumka* for curing disease, but at present most of the people of Gond tribe are going to Government hospital for their treatment of any disease. There were some traditional /folk medicine are found used by the Gonds of Nuapada. These were *Tulushi* leaves and root, Neem, bel, Mahua (*Madhuca indiea*), etc. As a remedy the Gond peope used to visit the *Pujari /Gunia* and perform some Pujas as per their advice. In order to appease the village deity and ancestors they used sacrifice hen/goat and also offer some feast to villagers, etc. The illnesses like top breathing problem, Endemic malaria (*Plasmodium falciparum*), gastrointestinal issues like severe diarrhea, stomach protozoa, micro nutrient deficiency and pores and skin contamination are not unusual place amongst them. At present, most of the Gonds are going to Government hospitals for their treatment of the health disease. Though Gond people are not having good nutritional supplements for their livelihood, but currently they are taking the guidance of health personnel, *Ashakarmi*, *Anganwadi karmi*, etc. Rice is the staple food of the Gonds and it is supplemented by pulses, seasonal fruits , roots, and tubers and non-vegetarian items like meat, chicken, eggs, fish, etc. Government has done a lot of good works through multiple ways to protect the life of Gond people and bring their holistic development. Attempts have been made to ensure connectivity and substantial achievements relating to provision of safe drinking water facilities

through wells, tube wells and provisions of tap water supply to the people of Gond community. The National Health Policy approved by the Parliament in 1988, accepted Primary Health care as the main instrument to achieving Health For All (HFA) by 2000 A.D. As per the National Health Policy Programme (NHPP), some Health Sub-Centres (HSC), Primary Health Centres (PHC) and Community Health Centres (CHC) are found established at different places of Nuapada district for the Gond people. Although the traditional treatment is provided by the village *guniss* through roots of trees and herbal plants for cure of different diseases, but now the Gond people are preferring to show their diseases before Doctors in the nearby Community Health Centers and Public Health Centre. At present, the major diseases of Gond people are being treated in the District Headquarters' Hospital at Nuapada. In spite of the efforts of the government, Gond areas continue to suffer from poor maternal and child health services and ineffective coverage under national health and nutrition programmes. On the whole, the traditional as well as modern health care systems of the Gond tribe of the Nuapada district are the important aspects to know the health care system of one of the tribal communities of Odisha in Eastern India.

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