

**THE HEALTH PROBLEMS AND HEALTH SCENARIO OF
SOLIGA TRIBALS AT BILIGIRI RANGASWAMY TEMPLE
WILDLIFE SANCTUARY, KARNATAKA, SOUTH INDIA**

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Abstract:

The Soligas tribals have been living in Biligiri Rangaswamy Temple Wildlife Sanctuary for time immemorial and they have symbiotic relationship with nature. They have been using the tubers, fruits, leaves, honey, mushrooms, bamboo shoot and seeds in their every day diet. Soligas have the health problems like common diseases, waterborne disease, flown from trees, animal attack and genetic diseases of sickle Cell anemia etc. Soligas are practicing medicinal plants and belief treatments for centuries. The interventions of Vivekananda Girijana Kalayana Kendra and Government, they are started to use modern medical treatments. Even today some of the Podus still using unsafe drinking water. The health services are not reaching to Podu(village) level, they have to walk miles to get medical treatments.

Key words: Soligas, VGKK, NTFPs, PHCs, traditional, BRT

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Introduction

The tribals have been living in the forest since ancient times; the forest is the backbone of the tribal economy and they are living in remote forest areas. They are facing lots of health problems like malnutrition, common diseases, and the genetic disease of sickle cell anaemia. Tribals even today have lack of drinking water, electricity, housing and other basic facilities. Due to the forest policy tribals' forest areas were declare as National Parks, Wildlife Sanctuaries and Tiger reserves, and in the name of big projects like hydro projects, mining , irrigation dams, tribals were displaced from the forest and provided with inadequate rehabilitation facilities. It deeply affected the tribal culture and lifestyle. They also got new diseases through interaction with people from outside the forests. The tribals have to walk long distances for Primary Health Centers for medical treatments. The government has lot of health programmes but many services are not reaching the tribal settlements.

The health and nutrition problems of the vast tribal population of India are as varied as the tribal groups themselves who present a bewildering diversity and variety in their socio-economic, socio-cultural and ecological settings (Basu, 2000).The tribal children were consistently more malnourished than their rural counterparts, in part because tribal families typically live in more remote resources-poor settings (Sethuraman, 2008).The tribal people suffer disproportionately from malaria, sexually transmitted diseases, tuberculosis, genetic disorders like sickle cell anemia as well as nutritional deficiency diseases (Chhotray, 2003). Tribals are beginning to face problems like malnutrition because of poverty. This situation has come about because their livelihoods have been compromised by regressive forest protection laws (Pate, 2009).

The 40,000 forest based tribals of the Soligar, the Jenu Kuruba and Kadu Kuruba have been living in 148 Podus or colonies in Chamarajanagar district of Karnataka state, India. Of those, 61 Podus of 12,500 Soliga tribal people are living in the Biligiri Rangaswamy Temple Wildlife Sanctuary (hereafter BRT), in 2011 the BRT Wildlife Sanctuary was declared a Tiger Reserve which means, that the Soligas are possibly facing relocation problems in the future, in the name of the tiger conservation.

The lifestyles and the relationship with forests play an important role in the Soliga health care system. People living in the core area of reserved forests with access to forest resources have a much better health status then those alienated from the forest. The former do not suffer from appendicitis, colonic

cancers, sexually transmitted diseases, Vitamin deficiencies, ischemic heart diseases, hypertension and other stress-induced illnesses (Sudarshan, 1998). In recent times the Soligas indigenous system of medicine had negligible contribution to the treatment of both general and chronic diseases affecting the tribe (Ghoshi et al, 2007). Dr. Sudarshan gave various instances of diseases/conditions such as appendicitis, colonic cancer, vitamin deficiency, ischaemic heart disease, hypertension, sexually transmitted diseases (STDs) and Acquired Immune Deficiency Syndrome (AIDS), which were once unknown among the Soligas. Also caesarian deliveries and eyesight disorders were absent among them (Sekhsaria et al, 2000).

Until recently the Soligas were using traditional religious, mental, physical and social treatment methods. Dr. Sudarshan started the Vivekananda Girijana Kalayana Kendra (hereafter VGKK) in 1981 and began to provide health facilities and health awareness for some Podus. The government also recently started three Primary Health Centers (here after PHCs) in tribal areas. Dr. Sudarshan outstanding contribution to primary health care and community health, his philosophy of health work clearly recognizes the limitations of modern curative medicine alone to improving the health status of the people (Bose, 2006). Soligas have a much better health profile than their counterparts in the adjacent villages and towns, despite having much less access to "modern" health facilities. For instance, there was no instance of appendicitis, colonic cancers, sexually disease, and other stress-induced illnesses. The reason, again, was access to a diversity of wild and semi-wild foods, and the natural surrounds in which they lived (Kothari, 2001).

The study area

The BRT Wildlife Sanctuary is located in the Chamarajanagar district of Karnataka state, India. The Sanctuary derives its name "BILIGIRI" from the White Rocky Chaff over which on the tabletop is a temple of Lord "VISHNU" locally known as Rangaswamy. It is also being believed that the hill range gets its name by white mist and silver clouds that cover these lofty hills for a greater part of the year. This unique bio-geographical entity which is situated in the middle of the bridge between Western Ghats and Eastern Ghats in South India is located between 11°43° and 12°09° North latitude and 77°01° and 77°15° East Longitudes. BRT Wildlife Sanctuary area spreads over 574.2 sq kms and inhabits a rich flora and fauna. BRT Wildlife Sanctuary was declared a Tiger reserve in 2011. There are a total of 61 Podus that are situated inside as well as outside the forest area and total 2905 families are depending on this forest for their livelihood.

Data collection

The study conducted in BRT Wildlife Sanctuary of Chamarajanagar district, Karnataka state, India. The random sampling methods adopted to collect primary data. The total size of sample is 370 families chose in the BRT Wildlife Sanctuary area. Lottery methods used for selection 36 Podus and 370 families for response. Disproportionate wightage as to give required importance to Podus have lesser number of Podus, Selected the household heads for the data collection and the data collected in 2009. A structured interview schedule used for collection of data, Researcher approached individual household heads (men) and spent one hour per family and collected information related the health problems in the family, health services available to them, drinking water etc.

Type and Size of the Soliga tribal families

The Soligas live in the forest and mostly the type of families to be found amongst them is the nuclear family, but extended and joint families are also to be found among the Soligas. For the purpose of the present study children staying with their father and mother is considered as a nuclear family; father, mother, children living together with other families is called as a joint family; father, mother, children and including brothers, sisters, in- laws, and grandparents, living together is considered as an extended family. Field observations revealed that nuclear family is the most preferred type among the Soligas. With limited supply of food, clothing, and shelter in an unsettled and insecure forest life a Soliga thinks mainly of his wife and children (Koppad et al., 1961). Nuclear families prevail among the Soliga (Singh, 2003). The most elementary type of family consists of a man, his wife, and his unmarried children, but a few cases of extended families were also observed. If the mother and father live with their married sons and other kin then it may be considered as an extended family (Morab, 1977).

Table 1: Type and Size of the Soliga tribal families
N=370 (100%)

Size as in number of persons	Nuclear family	Extended family	Joint family	Total Families (%)
	No. of families (%)	No. of families (%)	No. of Families (%)	
Two	57 (18.0)	00 (00)	00 (00)	57 (15.4)
Three	64 (21.0)	03 (08.8)	00 (00)	67(18.1)
Four	90 (29.0)	09 (26.5)	02 (08.3)	101 (27.3)
Five	59 (19.0)	11 (32.4)	05 (21.0)	75 (20.3)
Six	29 (09.0)	05 (14.7)	09 (37.5)	43 (11.6)
Seven	06 (02.0)	03 (08.8)	04 (16.6)	13 (03.5)

Eight	02 (00.5)	02 (05.8)	03 (12.5)	07 (02.0)
Nine	03 (01.0)	00 (00)	01 (04.1)	04 (01.0)
Ten	02 (00.5)	0 1 (03.0)	00 (00)	03 (00.8)
Total	312 (100)	34 (100)	24 (100)	370 (100)

The above table confirms that 84.3 per cent of the respondents belong to nuclear families, 9.2 per cent of the respondents belong to joint families, and 6.5 per cent respondents belong to extended families. Each of the 84.3 per cent nuclear families was constituted of 3 to 5 members while each joint family was constituted of 4 to 7 members, and each extended family had 4 to 6 members. Of the 370 families the total estimated population is 1,565 and an average family size is 4.22 per family, of which the average size in joint families stands at 7.1, extended families at 5.2, and 3.97 in nuclear families. Of the 312 nuclear families, 87 per cent had to 2 to 5 members each; of the 34 extended families, 73.6 per cent had 4 to 6 members each, and of the 24 joint families, 87.6 per cent had 5 to 8 each member each.

The present size of the families has changed and is reduced to about 4 to 5 members each. The reason behind this is their awareness of health related issues which has influenced the Soliga tribal community.

The traditional health treatment practices of Soliga tribals

The Soligas live a good life in the forest. The forest provides various products for everyday living like leaves, tubers, bamboo shoots, mushrooms, honey, fruits, and seeds. The Soligas use traditional medicinal plants for treatment and this practice has been continued for a century and has helped them to keep in good health. Thus the forest plays a very important role on the Soligas health. They have an in- depth knowledge of the herbal plants and use different approaches for treatment besides using modern medical treatments.

The traditional healers among the Soligas solve many different health problems, through traditional methods. If any person has a health problem he/she approaches the traditional healers and the priest (*Tammadis*), who give herbal medicinal from the medicinal plants. In the second type of treatment, they use the *Kani sasthanra*, which is used to find out the root cause of the problem, and the head of the household and the priest (*Tammadi*) of the Podu pray to the Gods, Goddess, and Veerus (Hero) to solve their health problems. The third method is called Gunji sasthanra in which the exponent uses the

Gunji seeds and the winnow (*Mora*) to find out the source of the problem, its reason, and how quickly it can be too solved. When the priest performs the rituals the suffering person along with his family sit beside the priest to listen and observe everything that happens in the interaction. In the middle of the puja, the priest goes in a trance during which the guru or god or goddess use him as a medium (Susthara *uttuvudu*) and assure the patient that all his specific ailments would be solved. The fourth method involves the person suffering going to the temple and after offering some small form of puja or ritual and is questioned by the priest who is in a trance and speaking on behalf of the god and goddess as to the source of his problem. He/she is then assured that god will look after his problems and that he should not worry as his problems would be solved with a particular time frame or in some cases is asked to visit the temple once a week for the next four weeks regularly.

The different health problems faced by the Soliga tribals

The Soliga families suffer from body, leg, and hand pain, fever, headache, diarrhea, dental problem, stomachache, cough and cold, eye problem, heart diseases, tuberculosis (TB), jaundice, nerves problems, chest pain, scabies/skin problems, hearing problem, and Diabetes problems. In some cases all members of a family suffer from the above mentioned diseases, while in other cases only one or two family members suffer. The table below explains the different health problems faced by individual families among the 370 families.

Table: 2 Different health problems faced by the respondent's families

Sl.No.	Name of the disease	No. of respondents families		
		Disease got (%)	Disease not got (%)	Total (%)
1	Leg, hand, and body pain	106 (28.6)	264 (71.4)	370 (100)
2	Fever	232 (62.7)	138 (37.3)	370 (100)
3	Headache	202 (54.6)	168 (45.4)	370 (100)
4	Diarrhoea	09 (02.4)	361 (97.6)	370 (100)
5	Dental problems	08 (2.2)	362 (97.8)	370 (100)
6	Stomachache	35 (09.5)	335 (90.5)	370 (100)
7	Cough/ cold	66 (17.8)	304 (82.2)	370 (100)
8	Eye problem	01 (00.2)	269 (99.8)	370 (100)
9	Heart diseases	01 (00.2)	369 (99.8)	370 (100)
10	Tuberculosis (TB)	05 (01.4)	365 (98.6)	370 (100)
11	Jaundice	01 (00.2)	369 (99.8)	370 (100)
12	Nerve problems	04 (01.0)	364 (99.0)	370 (100)
13	Chest pain	14 (03.8)	356 (96.2)	370 (100)

14	Scabies/skin problems	01 (00.2)	369 (99.8)	370 (100)
15	Hearing problem	03 (00.8)	367 (99.2)	370 (100)
16	Diabetes	02 (00.2)	368 (99.8)	370 (100)

Table 2 shows that 28.6 per cent of the families suffered from pain in the body, leg, and hand. About 62.7 per cent of the families had fever. Around 54.6 per cent of the families had headache. At least 2.4 per cent of the families and 2.2 per cent of the families had diarrhea and a small number of respondent family members had other health problems. Many Soliga tribals suffer from the genetic disorder of the Sickle Cell Disease.

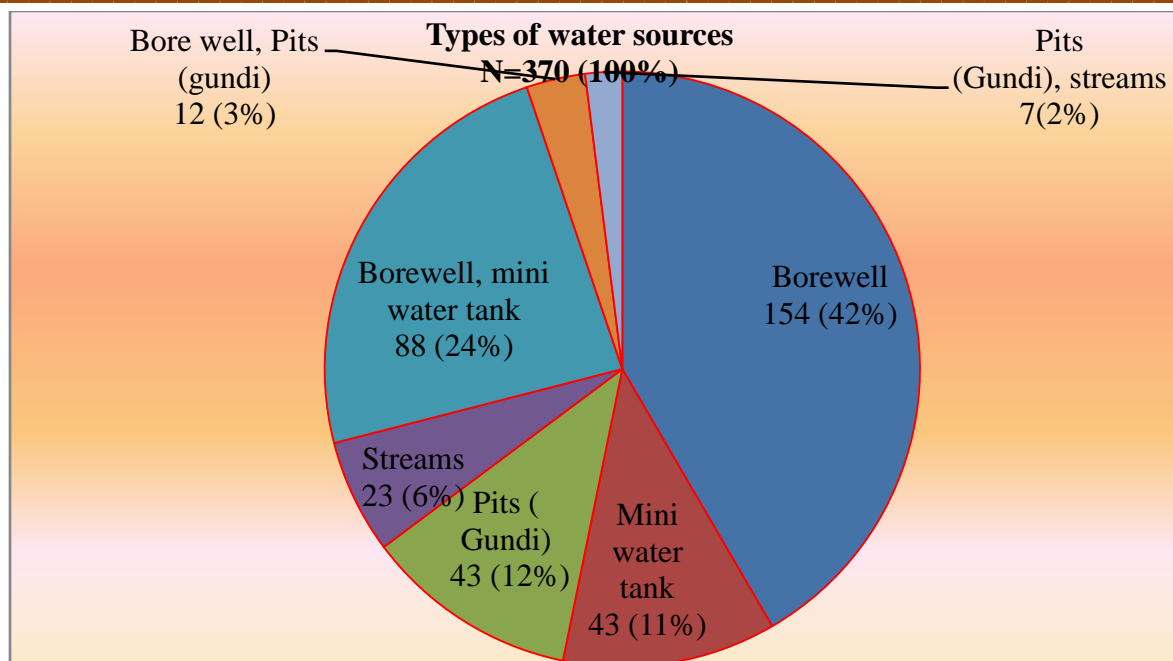
Of the 370 families, 56.5 per cent (209) have adopted family planning. Earlier the Soligas used traditional methods to control and stop child birth. This practice is slowly decreasing because of modern medical influences and health awareness. They have adopted family planning and are using modern medical treatments but still continue with traditional practices.

The Soligas suffer from more than 16 types of diseases for which they need medical treatment and awareness on health from the Government.

Types of water sources used by the Soliga tribals

Since the Soligas lived in the forest they would use whatever water source was available like streams and pond for drinking water. They usually lived in areas where the water source was available. When they were practicing shifting cultivation the Soligas elders would select good water source areas for constructing the Podus. Later on Government and VGKK, Zilla Budakattu Girijana Abhivrudhi Sangha (ZBGAS), Soliga Abhivrudhi Sangha(SAS) interventions provided for the drinking water like borewells and mini water tanks for some of Podus, but some of the Podus still use stream water and pond water in BRT Wildlife Sanctuary. The Tribal Welfare Department and the Zilla Panchayati wanted to provide drinking water through borewells and mini water tanks, but the forest department stopped the digging of borewells in some of the tribal Podus. According to the forest department the Wildlife Protection Act, 1972, borewells cannot be dug inside the Podus of BRT Wildlife Sanctuary. Hence, as per the respondents the Soligas are facing drinking water problem. The forest department is too busy following rules and regulations and is the least concerned about the drinking water problem of the Soligas. The figure explains the different water sources used by the Soligas.

Figure – 1 : Potable water sources used by the Soliga tribal families



The figure indicates that 42 per cent (154) of the respondents were using water from the borewell, 24 per cent (88) were using water from borewell and mini water tanks, 12 per cent (43) of respondents were using water from ponds, and 11 per cent (43) were using water from mini water tanks. About 20 per cent of the respondents using water from the pond and streams and 80 per cent of the respondents were using water from bore well and mini water tanks.

Around 80 per cent of the Soliga families had good drinking water facilities and 20 per cent of the families did not get good drinking water and they using the unsafe water due to this they are getting waterborne disease. So the Government needs to provide drinking water to the remaining Podus .under the provisions of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006.

The sources of treatments used by Soliga tribals

Soligas use different sources of treatments like traditional medicinal plants, religious or faith healing, and modern hospitals. They go to the Soliga healers who have knowledge of the traditional medicinal plants within and outside the Podus, and sometimes if they know the medicinal uses of the plants they self- medicate. For religious or faith healing treatment they go to the temples for the application of Kani sastara, Gunji sastara, Kanike, and Arike treatments on the advice of the Tammadi and certain like experts among them. They also make use of modern hospital like VGKK hospital and Mobile

unit, private hospital, and government hospital for their treatment. The respondents use eight sources of treatments. The figure explains the number of treatment sources used by the Soligas.

Figure 2: Treatments used by the Soliga tribals

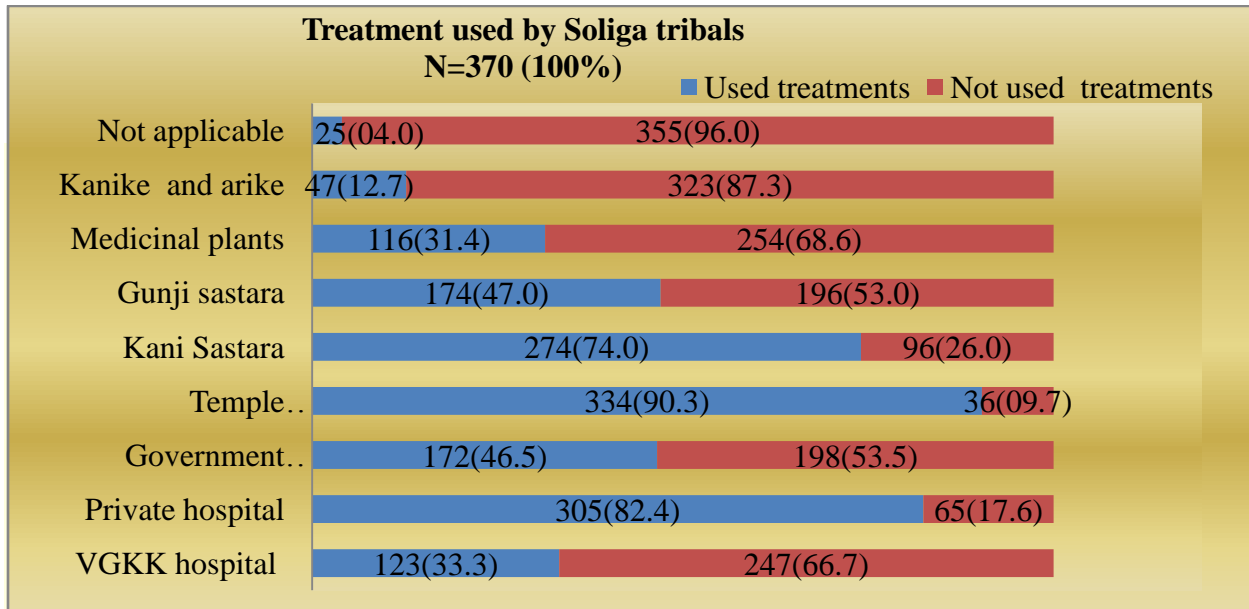


Figure 2 indicates that 90.3 per cent of the respondents prefer going to the temple (God, Goddess) for treatment, 82.4 per cent used private hospital treatment, 74 per cent mentioned Kani Sastara, 47 per cent mentioned Gunji sastara, 46.5 per cent mentioned Government hospitals, 33.3 per cent mentioned VGKK hospital and Mobile unit, and 31.4 per cent of had preferred the use of medicinal plants.

It indicated that Soligas had more in faith healing treatments than modern hospital and medicinal plants treatment. So the Government, NGOs, and Sanghas need to make them more aware of the health facilities available to them.

The annual expenditure on medical treatment

Soligas use different sources of medical treatment. They get free treatment from VGKK hospital and they mentioned that some of the government hospitals charged money for treatment. They also spent for money on faith healing and medicinal plants treatment. But if they knew the process of faith healing and had knowledge of the medicinal plants they would not need to spend money on treatment. The table explains the money spent on medical treatments.

Table 3: Annual expenditure on medical treatment
N=370

Amount spent on treatment in Rs.	No. of respondents (%)
1-500	162 (43.8)
501-1,000	70 (18.9)
1,001-1,500	35 (09.5)
1,501-2,000	29 (07.8)
2,001-2,500	08 (02.2)
2,501-3,000	10 (02.7)
3,001-3,500	03 (00.8)
3,501-4,000	02 (00.5)
4,001-4,500	00 (00)
4,501-5,000	13 (03.5)
Zero expenditure for medical treatment	38 (10.3)
Total	370 (100)

Average (mean) money spent Rs. 940 per year per family

Table 3 explains that 43.8 per cent of the respondents had spent Rs. 1-500 per year, 18.9 per cent had spent Rs. 501-1,000 per year, 9.5 per cent had spent Rs. 1,001-1,500 per year, 7.8 per cent had spent Rs. 1,501-2,000 per year, and 10.3 per cent mentioned that they did not spend any money on health treatments. A total of 62.7 per cent of the respondents had spent the money less than Rs. 1,000 per year per family.

The average money spent per year on medical treatment was Rs. 940 for family by the Soligas. So the Government needs to provide free medical treatment and health awareness to them.

Approximate distance from the Podu to the primary health centre

Of the 61 Podus, 21 Podus are situated inside and 40 Podus are situated on the periphery of the BRT Wildlife Sanctuary. The VGKK is a functioning hospital while the Government Primary Health Centre (hereafter PHC) situated at Bedaguli is not functioning. There are two PHCs located in Odayaraplaya and Chandakavadi, which are non - tribal areas. The Soligas can use the facilities of a few Primary Health Centers to be found on the periphery of the BRT Wildlife Sanctuary in non- tribal areas. To reach these health centers they have to cover long distances because the Podus are scattered around in three taluks. The figure explains the distance from the Podus to the Primary Health Centre.

Figure 3: Distance from Podu to primary health centre
N=370 (100 %)

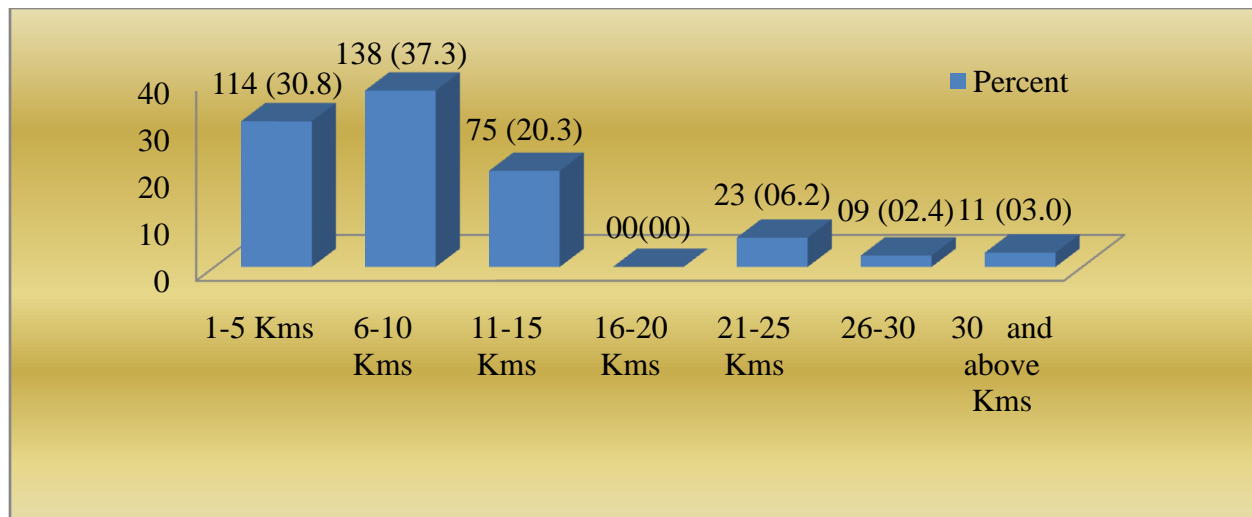


Figure 3 points out that 37.3 per cent of the respondents' 6-10 kms to reach the PHC, 30 per cent had to walk 1-5 kms, and 20.3 per cent had to walk 11-15 kms. It shows that most of the primary health centers are within a radius of 15 kms. Some of the PHCs are close to the Podus, but the doctors and nurses are not to be found so they have to go to the private hospitals for treatment. 98.4 per cent of the respondents have visited the hospital once in a while, 0.3 per cent visit once in a month, and 1.3 per cent does not visit the hospital for treatments.

The study indicates that some of the Podu people had to walk long distances to the Primary Health Centers (PHCs). Hence the Government needs to station doctors and nurses in the Primary Health Center and sub-centers and start PHCs in the tribal Podus where it will help the Soligas to improve their health.

Major health services received by the Soligas in BRT Wildlife Sanctuary

1. The Vivekananda Girijana Kalyana Kendra (VGKK):

Dr. H. Sudarshan has founded the VGKK in 1981 at B.R.Hills, Yelandur taluk of Chamarajanagar district, Karnataka, India. He has been working with the Soligas and other tribes in Chamarajanagar and Mysore district of Karnataka, as well as in Tamil Nadu, Andaman and Nicobar Islands and Arunachal Pradesh. The vision of VGKK is a self-reliant and empowered tribal society rooted in its culture and tradition. The VGKK is running a hospital in B.R.Hills, providing curative and preventive health services. The mobile unit is visiting inside Podus and provides basic medical treatments. Cases

with major diseases are referred to Chamarajanagar, Mysore and Bangalore for better treatment. VGKK provides health awareness in the Soliga Podus. Some of the trained tribal nurses were posted to tribal Podus to provide basic medical treatments and awareness. VGKK has established a 20-bed hospital in B.R.Hills and provides health services to the Soligas in the surrounding areas of VGKK.

2. Government Primary Health Centers:

The Government is running three Primary Health Centers in Chamarajanagar district of BRT Wildlife Sanctuary areas. Out of those three PHCs one is situated in Bedaguli. This PHC is not functioning from starting it was almost stopped functioning. The other two PHCs are situated in the periphery of the BRT Wildlife Sanctuary; one is in Chandakavadi that is situated in a non-tribal area. Therefore Soligas have to travel more than 20 kms for treatments and once in a while a mobile unit is visiting those tribal Podus nearby. Other PHCs is situated in Odayara playa of Kollegal taluk. These PHCs is also situated in a non-tribal area. This centre is also running a mobile unit once in a while. Most of the tribal Podus do not have a sub centre and all the sub centers are situated in the non-tribal villages. If they want treatments they have to walk miles. Nurses are visiting tribal Podus rarely and some of the Podus don't have PHCs nearby. Despite the Central and State Government bringing out different types of health programmes, they did not reach the tribal areas yet and Soligas are still facing a lack of health services. The government should provide special provisions and start some PHCs and sub-centers within tribal areas. The Ministry of Tribal Affairs should start to provide special health programmes for tribals.

The expected health services of Soliga tribals

The Soligas are facing different health problems in their everyday life and do not have access to quality healthcare in tribal areas. Their dietary intake has changed and they are now eating fewer food items like rice, ragi (finger millet) and some grains, which provide minimum nutrition and have decreased the use of their traditional forest products. VGKK is running a hospital inside the BRT Wildlife Sanctuary which provides good health services; one government primary health centre in Bedaguli colony is not functioning and on the periphery, which is a non-tribal area, two tribal Primary Health Centers are functioning. The Soligas in other Podus have to travel long distances for medical treatment. The table explains the expected health services.

Table 4: Expected health services of Soliga tribals
N=370(100%)

Expected health services	No. of respondents (%)
Good hospital and treatment should be available locally	212 (57.3)
Good treatment and sub- centre should be available at the Podu level	51 (13.8)
Good doctor and nurses should be available locally	26 (07.0)
Health awareness	07 (02.0)
Mobile treatment	13 (03.5)
Free medical insurance	36 (09.7)
Financial support and medical treatment for complicated health problems	24 (06.5)
Ambulance facility	01 (00.2)
Total	370 (100)

Table 4 specifies that 57.3 per cent of the respondents had mentioned that good hospital and treatment should be available locally, 13.8 per cent wanted good treatment and sub- centre at the Podu level, 9.7 per cent wanted free medical insurance.

The tribals require good treatment, financial support and medical treatment for complicated health problems, and Primary Health Centre at local level and sub- centers at the Podus level. The Government should take care to create health awareness and provide the much needed healthcare facilities to the Soligas because they are economically poor.

Implication of the study

The Soligas are suffering from more than 16 types of diseases and the major diseases include body pain, fever, headache, diarrhea, Stomach ache, dental, cough/cold, and they are using faith healing treatments rather than approaching hospitals and using medicinal plants for treatment. Hence, motivation could be provided to make use of the good traditional treatment methods and some of the belief treatment methods could be less appreciated. The Social Worker can use the case work methods to identify the sick and motivate them to take treatment. Community organization method can be used to organize the health awareness meetings, street plays, and awareness could be given on

health services available to them. The Research can be carried out in traditional treatment methods and scientific results could be generated on the usefulness of the treatment.

The study found that In spite of government's free medical services Soligas are spending money for medical treatment, the government's free medical treatment and services are not reaching to the tribal areas. The study indicates that some of the people in the Podus have to walk long distances for PHCs to get medical treatment. So the Government needs to provide free medical treatment effectively in tribal areas. The Social worker can use the community organization methods to provide the health awareness and motivate them to get health facilities. The Social Action activities can be used and Soligas can be involved in community based organization. Political lobbies could be done to approach the district and state level officials and to protest against the government policies, and bring the attention of the government to start the primary health centers in tribal areas. Soligas getting some of treatment from VGKK hospital, traditional healers and some government primary health centers. Some extents, for the medical services, even today they have using unsafe drinking water of streams it create the health problems and some of the live in huts and there is no sub-centre near the tribal Podus and most of sub-centers are situated in non-tribal areas. The government needs to provide Primary Health Centers, sub-centers and qualified doctors and nurses in tribal areas and should also streamline the current PHCs to function actively in providing suitable health services to tribal areas.

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