

## An Initiative for Improving AYUSH Health System at Kolli Hills

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### Introduction

Indian system of medicine has been a well-established traditional medical system globally [1]. This system is also called AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homeopathy) system. AYUSH system believes in holistic approach and treating a person as a whole. It is re-emerging in developing countries in order to promote preventive health rather than symptomatic management [2, 3]. Especially in India AYUSH system is developing day by day as an integrative healthcare [4]. Ayurveda is one of the branches of AYUSH system, gaining popularity in last several years. The main concept of Ayurveda lies on *tridosha* viz *vata*, *pitta*, and *kapha* [5], regulates bodily functions [6]. As a medicine, different medicinal plants are used in Ayurveda to maintain balance in *Doshas* [7]. On the other hand, to achieve control on mind wandering, AYUSH has its another branch called Yoga. Yoga is one of the most scientific philosophy among 6 ancient philosophies [8]. *Maharshi* Patanjali said yoga is nothing but control over our own mind. *Taittiriya Upanishad* talks about five layers of human existence viz physical body, *Pranic* body, mental body, intellectual body and spiritual body. Yoga helps to develop all round personality [9]. Yoga practice also has its effects on *Triguna* viz. *Sattva*, *Rajas* and *Tamas*, and overall wellbeing [10]. Yoga is one of the proven treatment modalities for several psychosomatic diseases such as anxiety [11], depression [12], heart disease [13,14], cancer [15,16], diabetes [17,18], dyslipidemia in diabetes [19], dementia associated with diabetes [20], neurological disorders [21] and also helps to increase markers of angiogenesis and angiogenin [22]. AYUSH system also included natural treatment methods in their holistic approach called Naturopathy. Naturopathy or nature cure is a natural treatment method in which five elements of nature such as ether, air, fire, water and earth are used to treat the patient. Entire concept of naturopathy is based on few principles of naturopathy in which the most essential are "Accumulation of toxic matter in the body is disease and treatment is removal of toxic matter", "Nature is the greatest healer", "Food is the

only medicine" [23]. Research has shown that Naturopathy can be an integrative treatment for hypertension [24], menopausal symptoms [25], asthma [26], metabolic syndrome [27], and cancer [28].

Along with Ayurveda, Yoga and Naturopathy, India is following Unani system of medicine since long back, that was introduced by Arabs and Persians during eleventh century. Several Unani healthcare, research and educational institutes are present in India [29]. Hippocrates is called the founder of the Unani system. The whole Unani system was developed established on four humours such as blood, phlegm, yellow bile and black bile, and four states of body such as cold, hot, moist and dry [30]. Impaired coupled with endocrine system with imbalanced humour leads to diseases [31]. Even though not much research has been done on Unani medicine, a few research has shown that plants used in Unani system of medicine are having good number of antioxidants and can be beneficial for many diseases [32]. Unani system of medicine has given management strategy for different disorders such as hypothyroidism [33], ulcer [34], etc. To manage such disease conditions another traditional system of medicine emerged in oldest medicinal system of India called Siddha system of medicine, that is practiced especially in Tamil tradition. 18 saints have contributed to develop Siddha system of medicine. Siddha system believed in five great elements of nature such as ether, air, fire, water and earth [35]. Siddhas focused on holistic health system and believed in the concept of "Food is Medicine, Medicine is Food". Good food will help to maintain good health. Siddha system included several traditional foods, that have huge medicinal benefits [36]. Siddha system also focused on root cause of disease rather than symptoms management [37] and is helpful for treating many diseases such as respiratory disease [38], arthritis [39], etc.

Homeopathy is the last branch of AYUSH system and second most popular medicinal system in India. Homeopathy believes in natural healing process based on principal "Similia Similibus Curantur" or "likes are cured by likes" [40]. Meta-Analysis showed that Homeopathy have beneficial health impacts compared to placebo [41].

Based on above introduction we can state that AYUSH system of medicine has its health benefits to treat several diseases as well as to maintain better health. To promote such traditional holistic health system, Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India and Isha Outreach jointly undertook a collective initiative to implement the holistic approach inspired by the AYUSH system of medicine spanning Oct 2010 to June 2012, at Kolli hills Block, Nammakal District, Tamilnadu, India. In this report, we have discussed glimpse of their collaborative efforts.

Due to convenient weather (rainfall- 1500 mm/year, temperature 16°C to 25°C), Kolli Hills is an attractive destination for cultivation of medicinal plants and vegetation. Even though the conventional physicians of Kolli Hills possess vast knowledge of herbs and medicinal plants, the use of these herbs has not been formally prescribed despite reported benefits for gastritis, pain in different joints, jaundice, snake bites and poisonous insects, etc. Besides, the reduction in cover for medicinal plants in this area has limited its scale and operationalization. Earlier, people used to cultivate and consume different kinds of vegetables, pulses, cereals as well as milk in their day-to-day meals but this has vanished after switching to tapioca cultivation. The financial condition of the people also prevented them to consume nutritionally rich food resulting in many nutrition deficiencies such as anemia (especially for women, adolescent girls, and children).

Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India and Isha Outreach undertook a collaborative pilot project to rejuvenate India's indigenous systems of medicine and wellness by revive application of India's traditional wisdom in this region.

Women and children of Tribal communities were targeted in this project. The project reached 42,200 people, in which 95% population belonged to Tribal communities in 276 villages under 14 Panchayats of Kolli hills.

There were different types of programs such as AYUSH Awareness Program, AYUSH Mobile Health Clinics, Yoga and Fitness Program, Home Herbal Garden/Fruit saplings distribution program, Maternal & Child Health Program, Networking with other agencies, and AYUSH Health Volunteers (AYUSH Sevaks).

AYUSH awareness program was organized to create awareness of the AYUSH systems of medicine to improve health. Different motivational teaching sessions were conducted related to health, nutritious food, the importance of herbs, Yoga, and naturopathy by using the appropriate technique and suitable audio-visual aids. The project aimed to create this awareness among 20000 individuals. However, they reached 36540 people through this program. To improve physical and mental wellbeing, Yoga classes were conducted for youth, adults, and children. This included the practice of *suryanamaskar*, *asanas*, powerful *kriyas*, *shambavi mahamuthra*, and meditation etc. Different fitness programs such as volleyball, throw ball, kabaddi, kho-kho, warm-up exercises, etc were conducted to promote social bonding and good health

for youth and adults. Cool-down exercises and fun games were conducted to reduce addiction, maintain a healthy weight, improve learning efficiency, and calmness. Qualified physical education experts organised the games, exercise, and provided for the required sports materials to the practitioners. They have achieved a target of 2918 (Yoga) and 2349 (fitness) as an important health promotion activity. Teaching sessions were provided to the households on different types of herbs, its uses, and were motivated to build a herbal garden to promote home remedies. A booklet was prepared on the importance of fruits and their nutritious values, home remedies, herbal remedies, and herbal gardening techniques and was distributed to the targeted community. Various kinds of herb and fruit saplings were distributed among the villagers to make the herbal garden. They have achieved up to 157 herbal gardens and 20372 fruit tree saplings were distributed to 10,186 person for their nutritional needs.

Health care intervention was given especially to women, adolescent girls, and children to strengthen maternal and child health. Different aspects of health screening were carried out to identify patients and subsequently allocated to particular programs such as AYUSH medication distribution program, supplementary nutrition program, and health education program. The training of AUM meditation and *sukha kriya* was provided to pregnant women for mental peace, internal equilibrium, and stress reduction by trained yoga teachers. They also organized successive health education sessions to bring awareness of personal hygiene, nutrition, breastfeeding, antenatal care, high-risk pregnancy. For a free consultation and treatment, two mobile health clinics were allocated in the Kolli Hills area. Mobile clinics visited 78 locations fortnightly reaching 234 hamlets. A total of 11 dental checkups and awareness camps were also conducted for the general public and school children in order to treat them and make them aware about dental hygiene. Ayurvedic toothpaste and toothbrushes were also distributed to patients with a dental problem.

AYUSH medicine and nutrition supplements were distributed to 1100 tribal children, 400 pregnant women, and lactating mothers for the management of anemia. The Yoga program engaged 240 pregnant women. 463 health volunteers of AYUSH called as AYUSH Sevaks were assigned to distribute the basic medicine to the needy people. This type of initiative helped to promote networking with AYUSH institutions and the Government. They identified traditional physicians of Kolli Hills and organized orientations for the improvement of their services. A panchayat level body was formed with 14 members, called as AYUSH Sangam, in order to support the project initiatives. This Sangam is formed with traditional practitioners and arranged regular meetings and technical orientations to share their experiences. For an effective implementation of the project, they engaged representatives from different local bodies and conducted interface meetings with different government officials such as health department officials, district officials, etc.

## Limitations

The project team faced many challenges such as lack of transportation, reduced literacy, non-availability of the community during the day and burden from early morning work and late-night shifts, misconception among local people, alcoholism, insufficient space for running the office and a store for stocking medicines. The team also learnt many things from this project such as barriers to provide health facility, the problem in transportation, and improper climatic conditions. It would have been better if they had planned this project with the knowledge of by knowing all these conditions. As this was a pilot project in this particular area, so the team spent a lot of time building the infrastructure for the project. Transportation for outside staff was not cost-effective, therefore, the local staff could be preferred for future projects. Even though the supportive staff tried to improve their capacity yet adequate training could not be provided which could have precluded the higher impact of the project [42].

## Conclusion

Despite many challenges, this project has enabled the improvement in health awareness, different health parameters that reflect the effect of AYUSH system among villagers of the Kolli Hills. This sought to revive the Indian traditional system of medicine by practical operationalization. The above said pilot project shows holistic AYUSH health system can be encapsulated as a ONE health program throughout the country.

## Acknowledgement

The authors thank to Department of AYUSH, Ministry of Health and Family Welfare, Govt. of India for funding this project.

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doi: 10.38205/imcr.020243