

## Research Article

# Morbidity profile of children attending Siddha hospitals in a district of Tamil Nadu, South India

Mahendra M Reddy<sup>1</sup>, Divya Nair<sup>1</sup>, Venkatachalam Duraisamy<sup>2</sup>, Kalaiselvi Selvaraj<sup>1</sup>, Palanivel Chinnakali<sup>1\*</sup>, Ganesh Kumar Saya<sup>1</sup>

<sup>1</sup>Department of Preventive and Social Medicine, Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), Puducherry, India

<sup>2</sup>Assistant Medical Officer (Siddha), Government Hospital, Kavundapadi, Erode, Tamil Nadu, India

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### \*Correspondence:

Dr. Palanivel Chinnakali,

E-mail: [palaniccm@gmail.com](mailto:palaniccm@gmail.com)

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## ABSTRACT

**Background:** Traditional systems of medicine in India are being mainstreamed as part of the National Health Mission. Of these, the Siddha system of medicine is popular in Tamil Nadu but there is limited information on the profile of pediatric patients seeking care under this system. Therefore, this study was carried out to describe the morbidity profile of pediatric patients attending Siddha Out Patient Department (OPD) at Government Hospitals in a district of South India.

**Methods:** A hospital based cross-sectional study was conducted among children aged 15 years and below attending OPD in two randomly selected Siddha Hospitals in Erode district of Tamil Nadu. The diagnosis of the participants was recorded as reported by the registered Siddha practitioner, as per the reporting format for Indian Medicine and Homeopathy.

**Results:** Among the 227 children included in the study, the mean age (SD) was 9 (3) years. Most of the children were males (60.8%) and belonged to the age group 10-14 years (45.8%). About one-fourth (26.9%) of the pediatric patients were found to be new cases. Fungal infections (24.2%), primary complex (21.6%), bronchitis (10.1%) and diarrhea (8.4%) were the top four morbidities.

**Conclusions:** Among pediatric age group, respiratory problems and skin problems were leading morbidities for which services were sought at the Siddha wing. This was similar to that observed in allopathic clinics.

**Keywords:** Siddha, Pediatric, Morbidity

## INTRODUCTION

India is a cradle of many traditional systems of medicine which have been followed in certain communities since the ancient times. The major traditional systems of medicine in India are namely Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH).<sup>1</sup> The World Health Organization (WHO) recommends the practice of the traditional system of medicine as it is affordable, safe and culturally acceptable.<sup>2</sup> In view of their acceptance among local communities, the National Health Policy (2002)

envisioned their incorporation in the public health system of the country.<sup>3</sup> This was implemented through the National Rural Health Mission (recently renamed as National Health Mission (NHM)) with efforts to mainstream AYUSH.<sup>4</sup> Among these systems, the Siddha system is widely popular in Tamil Nadu and therefore under NHM, Siddha practitioners are involved in providing health care starting from the Primary Health Centre (PHC) level in the state. Independent Siddha teaching institutes, hospitals and dispensaries are also present.<sup>5</sup>

Though it is expected that Siddha practitioners may often be the preferred health care providers among the population of Tamil Nadu, there is limited information on the profile of patients seeking care under Siddha. Our study concentrated on Bala vahatam (pediatrics) which forms one of the three main branches of Siddha; the other two been Nanjunool (toxicology) and Nayana vidhi (ophthalmology).<sup>6</sup> Knowledge regarding the characteristics of children attending Siddha clinics and the common morbidities encountered among this group of patients will help in planning targeted services, procuring appropriate drugs and allocation of other resources like manpower, so as to provide optimal care to this population. This information becomes more so pertinent in the context of the ongoing efforts to mainstream AYUSH into the public health system. Therefore, we planned to describe the morbidity profile of pediatric patients attending Siddha Out Patient Department (OPD) at Government Hospitals in a district of South India.

## METHODS

A hospital based cross-sectional descriptive study was conducted among children aged 15 years and below attending OPD at Siddha Hospitals in Erode district of Tamil Nadu. This study was part of larger study exploring the morbidity profile of all age groups including adult and elderly and also assessing the patient satisfaction of services at Siddha hospitals. Erode district is located in the western part of state of Tamil Nadu and has a population of 22 million.<sup>7</sup> There are 84 public hospitals in the district, 50 of them providing AYUSH services along with the allopathic services. Siddha services are provided at 37 public hospitals (including 10 district hospitals) in Erode.<sup>8</sup>

The Siddha section within the hospital is run by a qualified Siddha practitioner supported by Siddha pharmacist and other general support staff. Of the 10 government hospitals providing Siddha services in the district, two district (block) hospitals (Anthiyur and Bhavani) were randomly selected for the study.

All children (aged less than 15 years of age) who attended the Siddha OPD during the month of March, 2014 in these two hospitals were included in the study. Information on socio-demographic variables like age, gender, education and clinical profile (diagnosis) were collected from the adult caretakers accompanying the children using a structured pretested proforma. For the study purpose, diagnosis of the participants was recorded as reported in the OPD record/sheet by the registered Siddha practitioner. Categorization of the morbidities was done as per the reporting format for Indian Medicine and Homeopathy recommended by Directorate of Indian Medicine and Homeopathy under the Ministry of Health and Family Welfare, Tamil Nadu.

The study protocol was approved by human institute ethics committee of Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry. Administrative approval was obtained from the district Medical Officer (Siddha), Erode district.

Data were single entered and analyzed using EpiData software (version 3.1 for data entry and version 2.2.2.182 for analysis, EpiData association, Odense, Denmark).<sup>9</sup> We used mean (SD) to summarize continuous variables like age and we used proportions to summarize the morbidities.

## RESULTS

There were 2710 patients who attended the OPD of Siddha wing in the two hospitals during the study period. Of them, 227 (8.4%) belonged to the pediatric age group and were included in the analysis. The mean age (SD) of the children was 9 (3) years. Most of the children were males (60.8%) and belonged to the age group 10-14 years (45.8%). About one-fourth (26.9%) of the pediatric patients were found to be new cases.

Fungal infections (24.2%), primary complex (21.6%), bronchitis (10.1%) and diarrhea (8.4%) were the top four morbidities in children. Common morbidities stratified by age groups are shown in Table 1. There was no difference in the pattern of distribution among the old and new cases. Similarly not much difference in morbidity pattern was found as per gender. But, there were more proportion of cases of bronchitis among male children and fungal infections in case of females (Table 2).

**Table 1: Top four morbidities among children stratified by age groups attending Siddha outpatient department in Erode district, Tamil Nadu, 2014.**

0-4 years (n=31)	5-9 years (n=92)	10-14 years (n=104)
Fungal infections 8 (25.8%)	Fungal infections 24 (26.1%)	Fungal infections 23 (22.1%)
Primary complex 6 (19.4%)	Primary complex 23 (25%)	Primary complex 20 (19.2%)
Bronchitis 3 (9.7%)	Diarrhea 10 (10.9%)	Bronchitis 16 (15.4%)
Worm infestation 3 (9.7%)	Bronchitis 3 (9.7%)	Diarrhea 9 (8.6%)

**Table 2: Top four morbidities among children stratified by gender, attending Siddha outpatient department in Erode district, Tamil Nadu, 2014.**

Male (n=138)	Female (n=89)
Fungal infections: 28 (20.3%)	Fungal infections: 37 (30.3)
Primary complex: 29 (21%)	Primary complex: 20 (22.5)
Bronchitis: 20 (14.5%)	Diarrhea: 9 (10.1)
Diarrhea: 10 (7.2%)	Bronchitis: 3 (3.4)

## DISCUSSION

In our study, pediatric patients contributed to only 8.4% of the total outpatients. About one fourth of pediatric patients attending the Siddha OPD were new patients. This shows still there is increasing acceptance in using services of Siddha in the study population. The common morbidities among the pediatric age group attending OPD in Siddha wing were primary complex, fungal diseases, bronchitis and diarrhea.

A study conducted in rural areas of Aligarh, India among under five children found that respiratory infections (30.1%) and skin disorders (28.4%) were the most common illnesses followed by fever and diarrhea.<sup>10</sup> Similarly a study done in Dehradun, India among 0-3 years age group attending a rural Primary Health Centre (PHC) showed diarrhea (47.9%) followed by respiratory infections (22.21%) as most common morbidities.<sup>11</sup> A cross-sectional study done among children attending health camps in a rural area of Tamil Nadu reported that 60.2% of under five children suffered from respiratory ailments.<sup>12</sup> These findings are similar to our study which found respiratory infections (combining primary complex and bronchitis) and skin diseases (fungal infections) as most common morbidities in 0-4 years age group.

The study from rural Tamil Nadu also showed that 22.9% and 6.2% of children in the age group 5-15 years had respiratory infections and skin infections respectively.<sup>12</sup> Our study showed that 47 (23%) and 43 (22%) of 196 children in the age group 5-15 years had respiratory infections and skin infections respectively. The difference in proportions of skin infections may be due to the difference in study setting as well as diagnosis based on different systems of medicine. Though the definition of primary complex varies across the systems of medicine, higher levels of primary complex among pediatric outpatients points towards the overall increased incidence of respiratory illness in the community. Fungal diseases which require long duration of treatment was the second leading morbidity among children. Personal hygiene and strict compliance with medication helps in improving the cure rates in fungal diseases.

Among old cases attending OPD in Siddha wing, fungal disease, primary complex, bronchitis, eczema, bronchiolitis/asthma were the common diseases among the pediatric age group. The above mentioned diseases require a long duration of treatment and especially bronchitis/asthma in childhood is seasonal. Hence services related to these diseases with respect to drugs, equipment and special procedures can be strengthened at the Siddha wing. A separate day can be allotted for pediatric old cases (Pediatric chronic disease clinic/pediatric asthma clinic) so that special and focused care can be given to these children. The morbidity profile of the pediatric patients attending Siddha section was

similar to those attending the allopathic hospitals. Hence, focus must be given to strengthen services at these OPDs and possible integration with national health programs for children.

This is the first study that described morbidity of the pediatric population attending Siddha outpatient clinic. Knowing the disease status of those using the OPD can lead to better inventory management and evaluation. The study showed that the usage of Siddha services was good (with more than one-fourth of cases been new cases) if not on par with other medicine systems in Tamil Nadu. This study can act as a baseline and calls for the need of further research to find and analyze the factors that influence patient attitude towards the usage of Siddha medicine.

As this study was carried out at secondary level (block) hospitals in a selected district, the morbidity profile of children attending primary health centers may be different. Hence the study findings cannot be extrapolated to primary care settings. As the disease status was assessed by different Siddha practitioners at two different district hospitals there may be a bias in the final diagnosis which cannot be ruled out.

## CONCLUSION

Among pediatric age group, respiratory problems and skin problems were leading morbidities for which services were sought at Siddha wing. There was not much difference in the morbidity pattern among different age groups, gender or whether it was an old case or a new one across the pediatric population attending Siddha OPD.

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