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ASSESSMENT OF SELF SIDDHA MEDICATION IN PAEDIATRIC POPULATION (5-12 YEARS) IN RURAL AREAS OF VIRUDHUNAGAR DISTRICT, TAMILNADU- A CROSS SECTIONAL STUDY

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ABSTRACT

Background: For health authorities, particularly in developing nations like India, unprescribed medication is a major concern. Access to information regarding medications and illnesses is really easy in this age of the internet, which is now popular. The main issues with self-medication include resource waste, increasing pathogenic resistance, dangerous reactions, and prolonged suffering. Siddha medicines are being used much more frequently as a result of the current COVID pandemic. In 2013, the WHO launched the "WHO Traditional Medicine Strategy 2014–2023," which aimed to combine traditional and complementary medicine to enhance global healthcare. This move was made in response to the growing importance of alternative medicines. According to the WHO, 80% of the world's population still uses conventional pharmaceuticals for medical needs Due to lifestyle changes and a population that can no longer afford allopathic medication, the usage of plant-based products has risen dramatically in developed nations. This study aims to determine the prevalence of unprescribed Siddha medicine among the district of Virudhunagar's rural residents. Materials and procedures Purposive sampling will be used in a community-based cross-sectional study that will be conducted for six months in Virudhunagar district's rural districts. 50 parents or guardians with kids between the ages of 5 and 12 who agree to take part in the study by acknowledging their agreement and signing the consent form will be included in the study. **Results:** About 54% of the informants utilized self-medication to save time, and 60% of the informants got their self-medication from

friends or relatives. 60% of the individuals were primarily evaluated for respiratory issues. 36% of respondents reported experiencing negative side effects from self-medication.

KEYWORDS: Self-medication, Children, Rural areas, Siddha.

INTRODUCTION

Unprescribed medications are a serious health concern, particularly in developing nations like India. Self-medication is a frequent and preferred method used by patients in developing countries when universal access to healthcare has not yet been achieved.[1] Self-medication has been linked in studies to a contrary economic loss due to a delay in the diagnosis of underlying problems and the proper course of therapy. In India, a small number of community-level studies were done to determine the extent of self-medication.[2]

Studies of this type will be helpful in shedding light on the factors that lead patients to engage in this behavior and could assist policymakers and regulatory agencies in streamlining the process of drug regulations, updating the list of essential medications, and addressing safety concerns with over-the-counter medications.[3]

Depending on cultural, societal, and educational factors, the type and intensity of self-medication differs. Access to information on medications and illnesses is simple to find in modern internet generation, which is currently popular.[4] It is widespread in underdeveloped nations and is a little more prevalent among educated people. In India, self-medication is practiced by 8.3% to 92% of the population.[5] Compared to high-income families, lower and middle-income families are more likely to self-medicate.[8]

People practice Self medication for their health problems/conditions such as headache, fever, sore throat, gastrointestinal tract problems, respiratory problems, skin disorders, ear symptoms, and others.[9] Factors that trigger the usage of self medication such as urge of self care, feeling of sympathy towards family members during sickness, lack of time, lack of health services, unawareness, misbelieves, excess advertisement and availability of drugs or herbs other than drug shop are the factors responsible for growing trends in self-medication.[10]

The usage of Siddha medications have immensely increased in this Covid-19 pandemic situation. In order to self medicate children the parents/guardians administer the medicines without proper consultation and ignore the risk of inappropriate handling of medicines. WHO

states that 80% of global population still relies on conventional medicines for their healthcare needs.[11] In India, several problems are treated using Complementary and Alternative Medicine such as, Ayurveda, Siddha, Unani, Homeopathy, Yoga and naturopathy.[12]

The use of plant-based products in developing countries is increased which is due to the changes in lifestyle and decreased affordability to allopathic medicine by the present-day population. There were several preparations which were used by their ancestors for various illnesses which may produce good results these outcomes could differ according on physical circumstances, age, disease severity, climatic factors, dosage, and dietary and lifestyle choices. Numerous research on self-medication in various demographics using contemporary medications exist. There are no research-based publications on self-medication using Siddha medicines among children. This not only analyzes the evaluation of over-the-counter medications in rural areas but also lists the medications used there for pediatric illnesses.

MATERIALS AND METHODS

It was a cross-sectional study conducted in the community. 50 volunteers made up the study's sample, who were informants of kids in the Virudhunagar district's rural districts between the ages of 5 and 12 years old. The study comprised participants of all genders. The study's goal is to determine how frequently parents or guardians give their kids unprescribed Siddha medications. The main goal is to investigate how parents and guardians use unprescribed Siddha medication on children. Assessing the circumstances in which Parents/Guardians typically allow their kids to self-medicate is the secondary goal. The study's primary data collection instrument was an interview schedule that asked participants about their sociodemographic characteristics and their use of over-the-counter herbal treatments and Siddha medicines in paediatric care.

Prior to conducting the study, NIS/IEC/2021/MP-1 and CTRI Registration with number CTRI/2022/02/039986 were completed. This study was conducted after receiving ethical clearance from the Institutional Ethics Committee, National Institute of Siddha.

The study participants were questioned regarding their use of self-medication after being told about the study and receiving signed consent. The frequency for each factor was determined once data from the required sample size (50 participants) was collected.

OBSERVATION AND RESULTS

Table I: Informants for children.

S. no.	Informant	Subjects	Percentage
1	Father	6	12%
2.	Mother	38	76%
3.	Guardian	6	12%

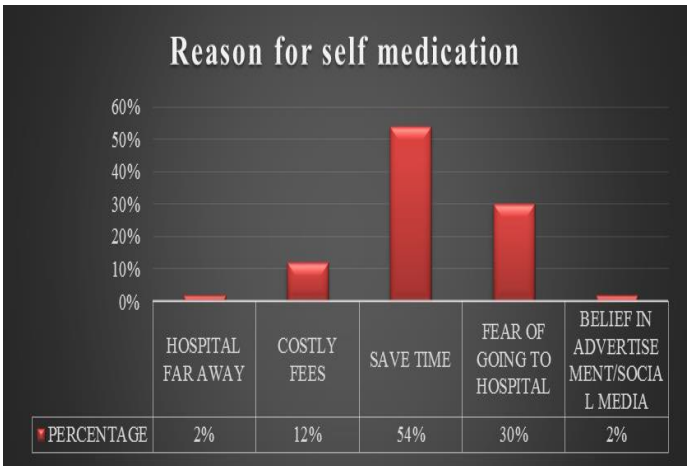

Fig. 1: Reason for self-medication.

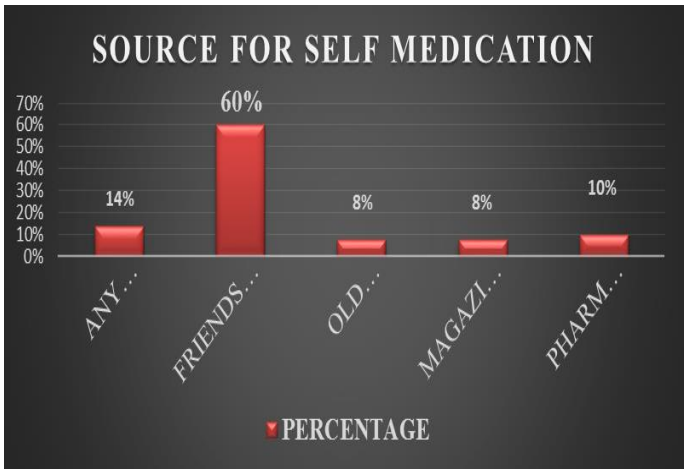

Fig. 2: Source of self-medication.

Table II: Diseases on which self-medication used.

S. no.	Diesases	Subjects	Percentage
1	Cold	23	46%
2	Bronchial asthma	7	14%
3	Fever	6	12%
4	Diarrhoea	6	12%
5	Skin diseases	2	4%
6	Malnutrition	1	2%
7	Worm infestation	5	10%

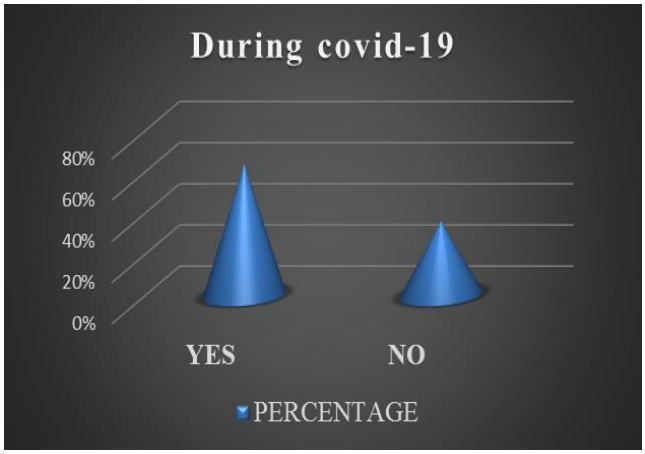

Fig. 3: Usage of self-medication during Covid – 19.

Table III: Impact of using self-siddha medication.

S. no.	Impact of self siddha medication	Subjects	Percentage
1	Good	44	88%
2	Low	4	8%
3	No improvement	2	4%

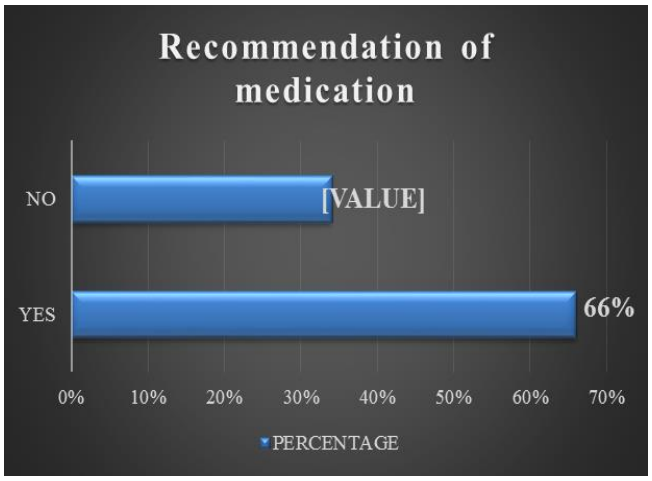

Fig. 4: Recommendation of Self-medication to other children with the same Signs and Symptoms.

Table IV: Taking Self-medication for long duration.

S. no.	Taking self medication for long duration	Subjects	Percentage
1	Yes	11	22%
2	No	39	78%

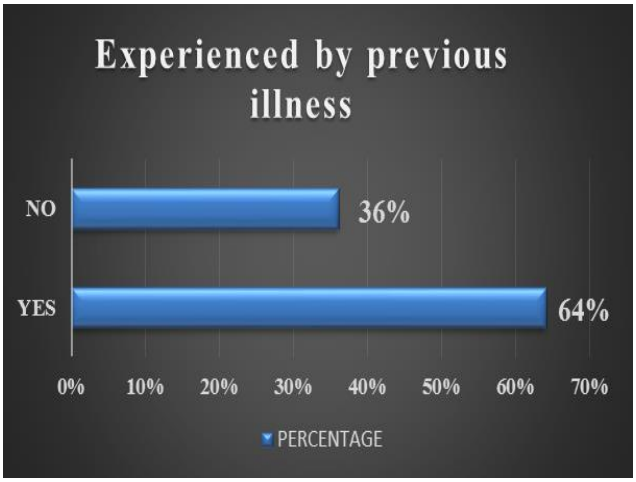

Fig. 5: Already treated the child for his/her previous illness using self medication.

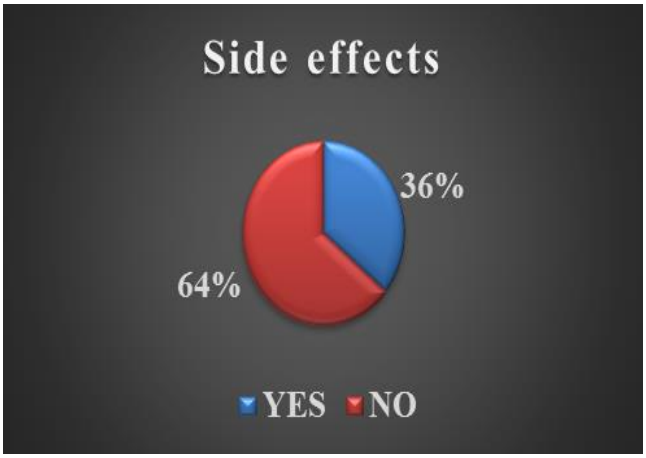

Fig. 6: Side effects experienced after usage of Self medication.

DISCUSSION

This observational study is a community based cross sectional study for the assessment of unprescribed medications that are used for children in rural areas of Virudhunagar district. This study was aimed to estimate the prevalence and to list out the traditional preparations which were followed in rural areas and also to create the awareness on Parents/Guardians who gave Self medication to their children. In this rural area 50 Children were included based on inclusion criteria their parents/Guardians were requested to complete by the questionnaire.

Self-medication is more likely to be inappropriate if used by poorly informed people. In the present study it is found that prevalence of self-medications was 78%, which was closely similar to the study done in Hyderabad among urban slum dwellers and rural Maharashtra where the prevalence were 73% and 81.5% respectively in respect of self medication on allopathic medications. Prevalence of self-medication among adult on rural Kancheepuram and rural Karnataka were 53.43% and 51.75% respectively in the studies done by Annadurai

et al and Kumar et al. various studies found that prevalence of self-medications were around 50% in rural South India and Urban slums.

On the other hand, International studies reported that the prevalence were 10.5% to 48% which were documented from various studies conducted in Srilanka, Mexico, Spain, Saudi Arabia, Germany, Jordan and Malaysia. This wide difference in prevalence could be due to different socio-demographic population, cultural practices, seasonal variation of illnesses, health seeking behavior of the people and considerable recall period.

Among 50 children, where in the sex distribution is equally spared between male and female children and majority of the children were in the age group of 12 years. Most of the children were from middle class in their socio economic status (62%). The informants for children were mostly mothers (76%) who were basically house wives with an educational status of secondary school level (29%). Majority of the people used Self medication and they preferred mostly Siddha Medication as for 27 members were preferred for the purpose of saving time (54%) and 15 members preferred as for fear of going to hospital (30%).

These outcomes were similar to those reported by WHO that self-medication provides a cheaper and convenient alternative for their common health issues [16]. In south Indian studies, Annadurai et al and Katkuri et al it was also found that time saving is the major important factor for self-medications.

This study finding revealed that common cold (46%), Bronchial asthma (14%), diarrhoea (12%), Fever (12%) was the common illnesses for which they purchased drugs without physician's consultation.

This study also confirms that 94% of the subjects were used home remedies for their various illnesses from various sources of information. While the most common source of drug information reported was pharmacist and friends (70%), this was similar to study done in Ernakulam (76.3%), Hyderabad (67%), Urban Karnataka (87.2%) and Maharashtra (42.1%).[17,18] The sources of drug purchase were found to be Siddha medical shops which have a similar outcome from the Saudi Arabian study wherein 92.73% of the purchases were done on medical shops/pharmacy.[19] At the same time the participants did not depend on self medication for chronic illnesses in their children.

Recent pandemic outbreak of Covid-19 made the Siddha system of medicine very popular not only in the State/Country but also on the nook and corners of the world. As there was no standard treatment guideline to Covid but Covid-19 spread the Siddha experts developed a course of treatment which stalled the crisis and almost every common man of the state used Siddha medication either with or without consultation of the Siddha physician. In this regard 64% members of the members took self-siddha medications during this pandemic for prevention.

The usage of Siddha drugs during the pandemic was so common that the Siddha medication particularly kabasura kudineer was made available even in departmental/Petty shops. Nobody carried about the ingredients and the quality of the preparation that became small scale industrial products. Most of the parents who had participated in this study believed that the Siddha medicines were safe to use for their children and most of the ingredients were of herbal origin which was not true at all times considerably the dosage, adverse effects and contradiction of the medicine that they were unaware.

44 members had a good improvement after using of Self Medication this may lead to them made to prescribe to other Children with the same complaints (66%) without knowing the status of illnesses or consultation by the physician. About 64% of the persons experienced positive results on using Self medication for a disease affecting their children previously.

Due to time saving and fear of going to hospitals 18 subjects were visiting the hospitals after had experienced poor responses on using Self medication (36%). Majority of the subjects were preferred to undergone treatment in private hospitals for their illnesses which already experienced with self medication.

The association between the basis of literacy level compared with prescription knowledge and instruction to usage of any self medication is Significant (Fisher exact test value: 9.31; p value 0.014). So according to this statistics lower the literacy level subjects had a knowledge about the understanding of usage manual was also low.

The association between Self medication for long time compared with literacy level is significant (Fisher exact value: 13.784; p value: 0.008). So according to this increased literacy level subjects had not taken Self medication for long duration.

The association between literacy level and recommendation of medications to other children with similar complaint is Significant (Fisher exact value: 8.752; p value: 0.025). So according to that lower the literacy level there was increased recommendation of medications with same complaints to other children.

Parents /Guardians who were always concerning about their Children due to this hectic restless life, many of them are daily waged people so they feel hard to spend time. As many of informants had low literacy level they were using Self medication due to unawareness about the diagnosis of the illnesses, progress of the disease, appropriate medication with its dose and duration according to their children's age and the course of the diseases. Many preparations used by subjects which were listed below.

Traditional preparations	**Indication**
Kolinji leaves (Tephrosia purpurea)+*Veppilai* (azadiracta indica)+ *poondu* (Allium sativum)+ *perungayam* (Ferula asafoetida) grinded and mix it with hot water	Worm infestation
Kasakasa (Papaver somniferum)+ *chukku* (Zingiber officinale) grinded powder Make into decoction	Diarrhoea
Chukku (Zingiber officinale)+ *omam* (Trachyspermum ammi) grinded powder mixed with honey	Increased appetite
*Thulasi (*Ocimum sanctum*)* leaves grinded with water.	Tooth ache
Pungan leaves (Pongamia pinnata)+salt grinded make decoction	Diarrhoea
Kattralai(Aloebarbedensis)+*kuppaimeni*(Acalypha indica)+ *manjal*(Curcuma longa) dried and powdered and apply on affected parts	Tinea Corporis
Kasakasa(Papaversomniferum)+*Elam*(Elatteria cardamomum)+dry grapes dried for 3 days and powdered mixed with hot water	Diarrhoea

CONCLUSION

Self-medication is an alarming concept. This study was focused mainly factors such as self-medication of Siddha medicines, drugs, their use, its safety and reason for using it. Even in rural areas prevalence of using Self-medication on Siddha Medicines was high. It would be safe, if the people who are using it, have sufficient knowledge about its dose, duration, over dosage effects, unfortunately due to lack of information it may cause serious effects such as skin problem, hypersensitivity and allergy. From this study it is understood that the self

medication concepts and its ill effects are not known to the people in countries like India because of poor economic status and literacy level.

We are on the edge of sword whether to promote self-medication or not. Hence it is recommended that holistic approach should be taken to prevent this problem, which includes proper awareness and education regarding the self-medication. Dispensing modes in the needs to be improved through proper education, strict regulatory and managerial strategies to make health care easily accessible and cost-effective. Health professionals have to spend some more extra time in educating patients regarding the same.

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