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**INTERNATIONAL JOURNAL OF  
ADVANCED RESEARCH (IJAR)**

Article DOI: 10.21474/IJAR01/9883  
 DOI URL: <http://dx.doi.org/10.21474/IJAR01/9883>



### RESEARCH ARTICLE

#### CROSS SECTIONAL STUDY ON BODY CONSTITUTION IN KURAVEETHANA NOI (HYPOTHYROIDISM).

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#### Manuscript Info

##### Manuscript History

Received: 12 August 2019

Final Accepted: 14 September 2019

Published: October 2019

##### Key words:-

Hypothyroidism, Kuraiveethana noi,  
Body constitution.

#### Abstract

Siddha system is one of the oldest method of medicine in India. Many diseases are emerging as a trend of lifestyle modifications due to stress, sedentary lifestyle and food habits one among them Hypothyroidism. Hypothyroidism is one of the most metabolic causes of reversible cognitive impairment. Women are five to eight times more likely than men to have thyroid problems. One woman in eight will develop a thyroid disorder during her lifestyle. Siddha system rests on the conceptual framework formed by 96 thathuvams which includes Muthodam (Vali, Azhal, Iyam). These are vital life-forces govern the physical, physiological and psychological components of an individual thus forming the individual Yakkai ilakkanam (Body constitution). The main objective of the study is to evaluate the incidence of Kuraiveethana Noi (Hypothyroidism) with respective body constitution. This study is conducted in National Institute of Siddha, Chennai with IEC approval. I had selected 100 hypothyroidism (Kuraiveethana noi) patients with thyroid function test report to analysis the body constitution of Kuraiveethana noi. The study details were collected in the data collection form (Questionnaire). Result of the study is kabavatha thegi patients are more affected in hypothyroidism (Kuraiveethana noi).

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#### Introduction:-

Yakkaiyin ilakkanam assessment becomes essential to premonitorily diagnose any vitiation of the three vital humors. For example, a minuscule level of Vitiation of Vali (Vatham) can be observed either through hyperpigmentation of the skin, hyperreactivity to stress or extreme fatigability.

Hypothyroidism is highly prevalent in India with one out of 10 people in the country. It has been estimated that about 42 million people in India suffer from thyroid disease. Congenital hypothyroidism occurs 1 in 4000 newborns. The prevalence of older and younger adults is found to be 13.11% and 7.53% respectively. The prevalence of female and male is 15.86% and 5.2%. The overall prevalence of Kuraiveethana Noi was 10.95 % India. This study was conducted to evaluate the occurrence of Kuraiveethana Noi by using body constitution (Vazhi, Azhal, Iyam) and

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evaluate personal characteristics of Kuraiveethana Noi patient with Family history, Dietary habits with lifestyle modifications.

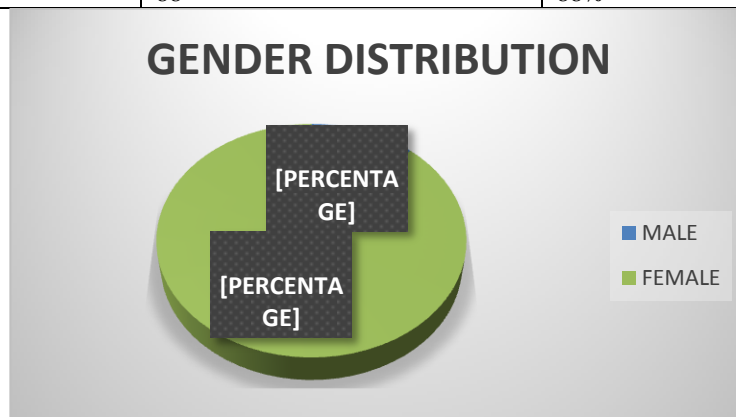
### Materials and Methods:-

It is a cross sectional study conducted in the Outpatient department of Ayothidoss Pandithar hospital, National Institute of Siddha,.The study was approved by the IEC(Institutional Ethics Committee)-NIS/IEC/2019/1.The study was also registered in CTRI (Clinical Trial Registry India)- CTRI/2019/05/018991. The survey takes place from March 2019 to August 2019( 6 months).In this study approximately 100 outpatients in between the age group of 13 to 60 were selected without any bias for data collection like sex, occupation, Socioeconomic status and duration of disease. A pre-designed self-administrated questionnaire interview method was used for collecting data in the patients. Data on demographic characteristics (including age, occupation, family history and personal habits) were obtained.

### Results:-

**Table 1. Gender**

GENDER DISTRIBUTION	NUMBER OF PATIENTS	PERCENTAGE
MALE	12	12%
FEMALE	88	88%

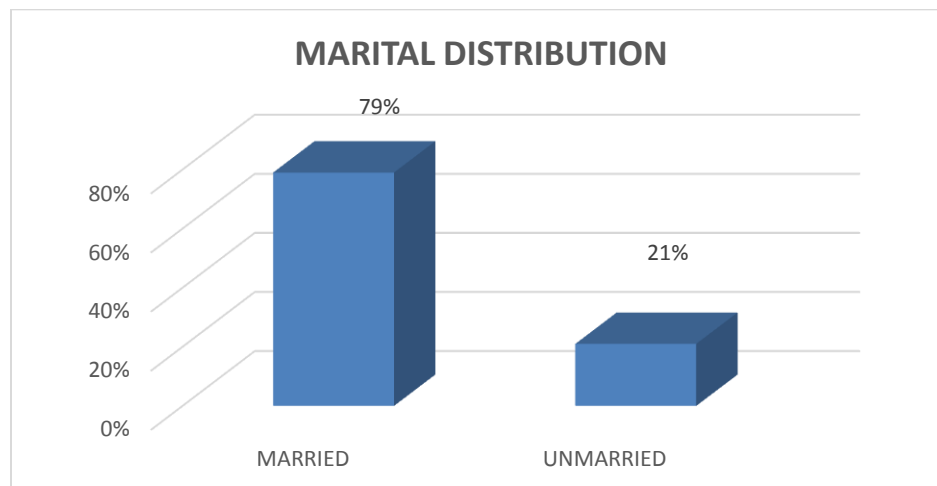


### Inference:

Out of 100 patients, 88% of cases are females and 12% of cases are males.

**Table 2. Marital status**

MARITAL DISTRIBUTION	NUMBER OF PATIENTS	PERCENTAGE
MARRIED	79	79%
UNMARRIED	21	21%

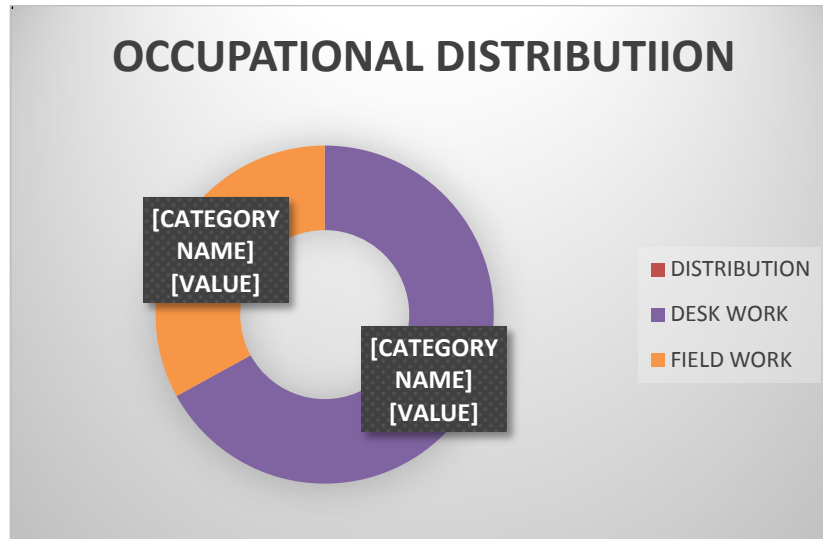


**Inference:**

Out of 100 cases, 79% of cases were married, 21% of cases were unmarried.

**Table 3. Occupation**

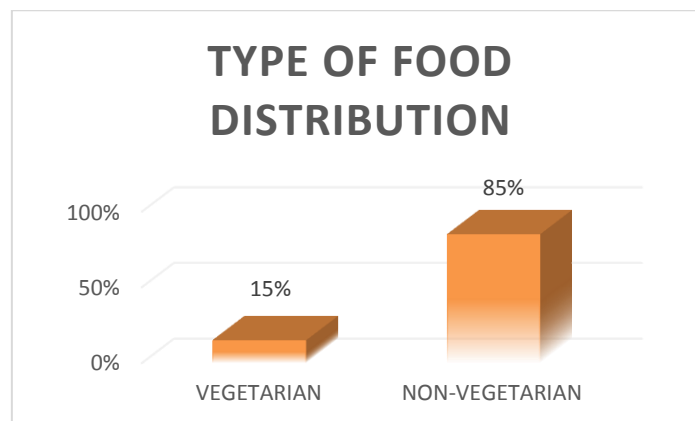
OCCUPATIONAL DISTRIBUTION	NUMBER OF PATIENTS	PERCENTAGE
DESK WORK	67	67%
FIELDWORK	33	33%

**Inference:**

Out of 100 cases taken for this study, most of the cases were belonged to Desk work(67%), and 33% were belonged to fieldwork.

**Table 4. Food habits**

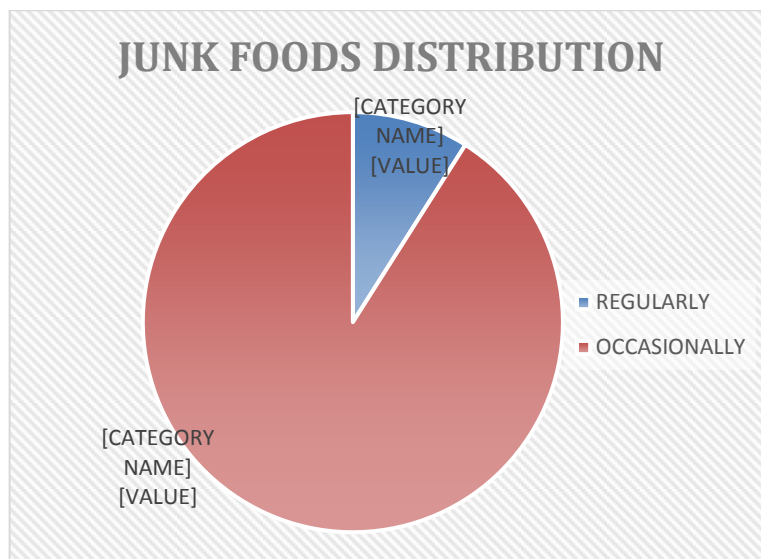
FOOD HABITS DISTRIBUTION	NUMBER OF PATIENTS	PERCENTAGE
VEGETARIAN	15	15%
NON-VEGETARIAN	85	85%

**Inference:**

Out of 100 cases, 85% were taken a non-vegetarian, 15% were taken vegetarian food.

**Table 5:-Junk food**

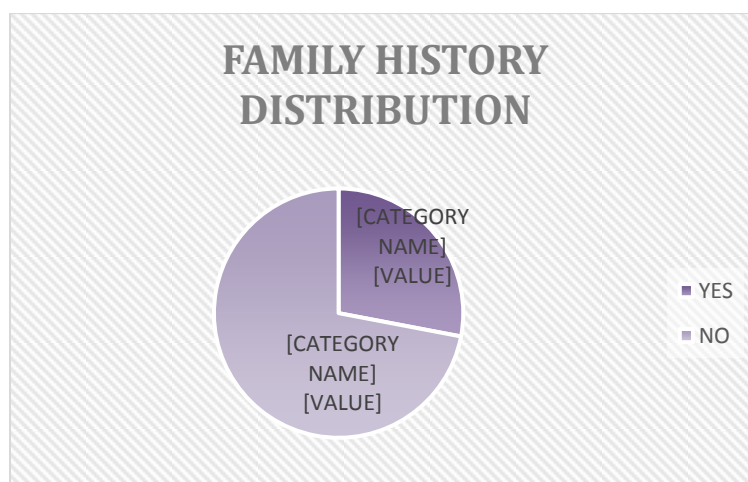
JUNK FOOD DISTRIBUTION	NUMBER OF PATIENTS	PERCENTAGE
REGULARLY	9	9%
OCCASIONALLY	91	91%

**Inference:**

Out of 100 cases, 91% of people were taken junk foods occasionally, 9% of people were taken junk food regularly.

**Table 6:-Family history**

FAMILY HISTORY DISTRIBUTION	NUMBER OF PATIENTS	PERCENTAGE
YES	28	28%
NO	72	72%

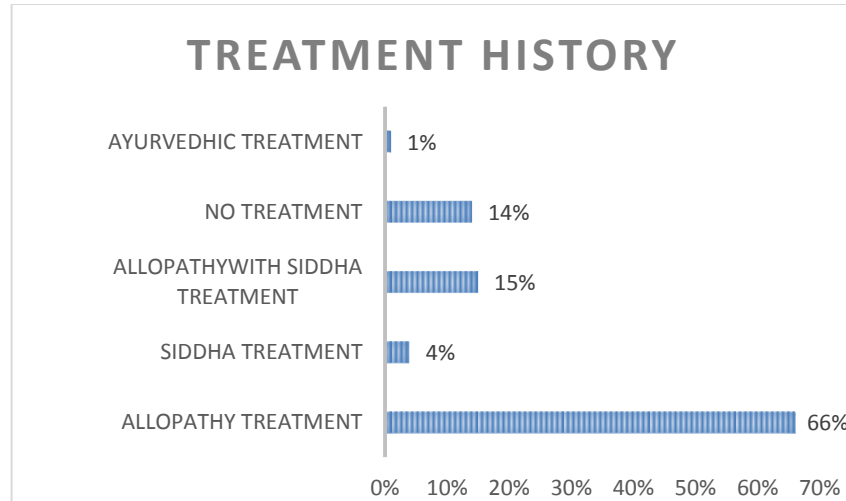
**Inference:**

Out of 100 cases, 72% of cases had no relevant family history and, 28 % of cases had a family history of Kuraiveethana noi.

**Table 7:-Treatment history**

TREATMENT HISTORY DISTRIBUTION	NUMBER OF PATIENTS	PERCENTAGE
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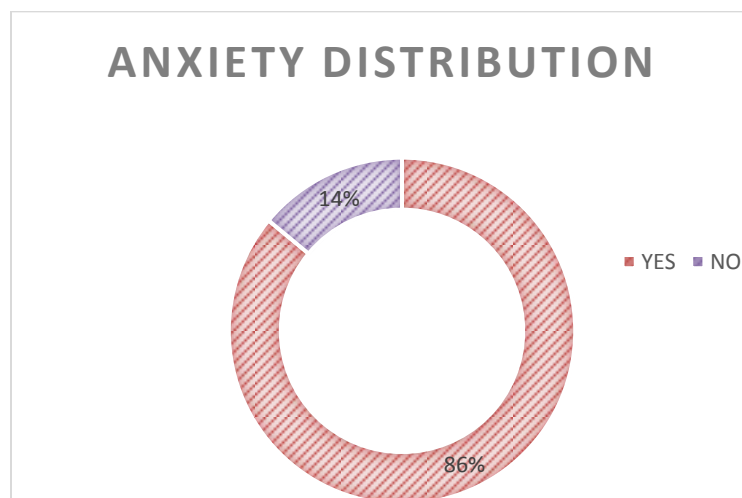
ALLOPATHY TREATMENT	66	66%
SIDDHA TREATMENT	4	4%
ALLOPATHYWITH SIDDHA TREATMENT	15	15%
NO TREATMENT	14	14%
AYURVEDHIC TREATMENT	1	1%

**Inference:**

Out of 100 cases, 66% of patients were taking allopathy treatment, 4% of patients were taking Siddha treatment, 15% of patients were taking Siddha and Allopathy treatment, 1 % of patients were taking ayurvedic treatment, and 14% of patients were not taking any treatment.

**Table 8:-Anxiety**

PRESENCE OF ANXIETY DISTRIBUTION	NUMBER OF PATIENTS	PERCENTAGE
YES	86	86%
NO	14	14%

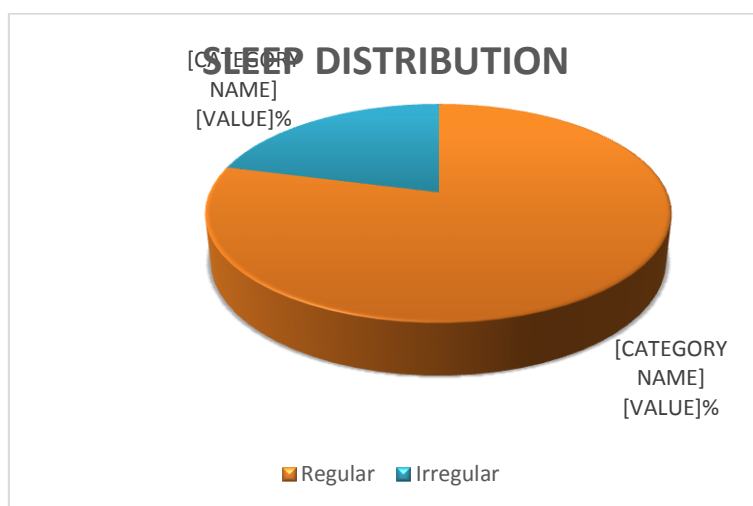
**Inference:**

Out of 100 patients, 86% of cases were being with anxiety, 14% of cases had no anxiety.

**Table 9:-Sleep pattern**

SLEEP PATTERN DISTRIBUTION	NUMBER OF PATIENTS	PERCENTAGE
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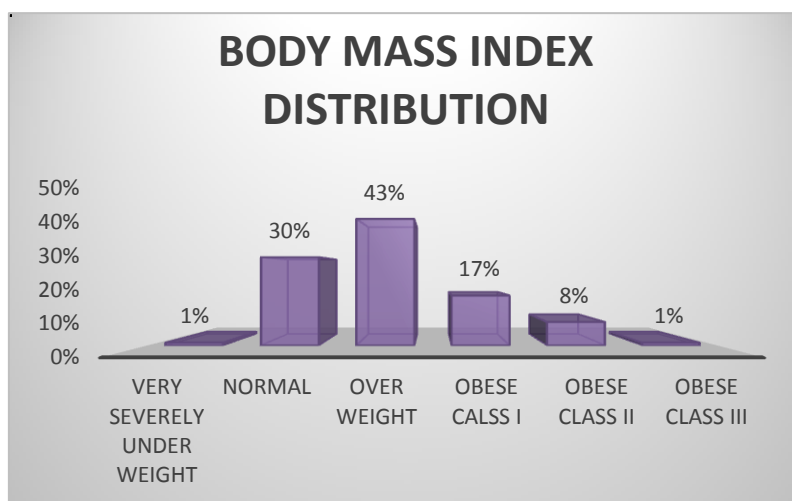
Regular	79	79%
Irregular	21	21%

**Inference:**

Out of 100 cases, 79 % of cases had regular sleep. 21% of cases had an irregular sleep pattern.

**Table 10. Body mass index**

BMI DISTRIBUTION	NUMBER OF PATIENTS	PERCENTAGE
VERY SEVERELY UNDERWEIGHT	1	1%
NORMAL	30	30%
OVER WEIGHT	43	43%
OBESE CLASS I	17	17%
OBESE CLASS II	8	8%
OBESE CLASS III	1	1%

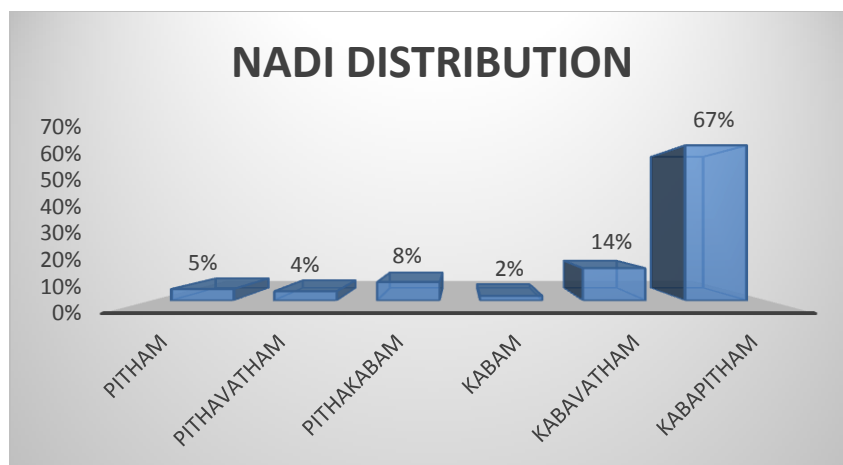
**Inference:**

Out of 100 patients, 1% came under very severely underweight, and another 1% came under Obese class III. 30% were normal weight and 43% came under overweight, 17% were obese class I, 8% came under obese class II.

**Table 11:-Naadi**

NAADI DISTRIBUTION	NUMBER OF PATIENTS	PERCENTAGGE
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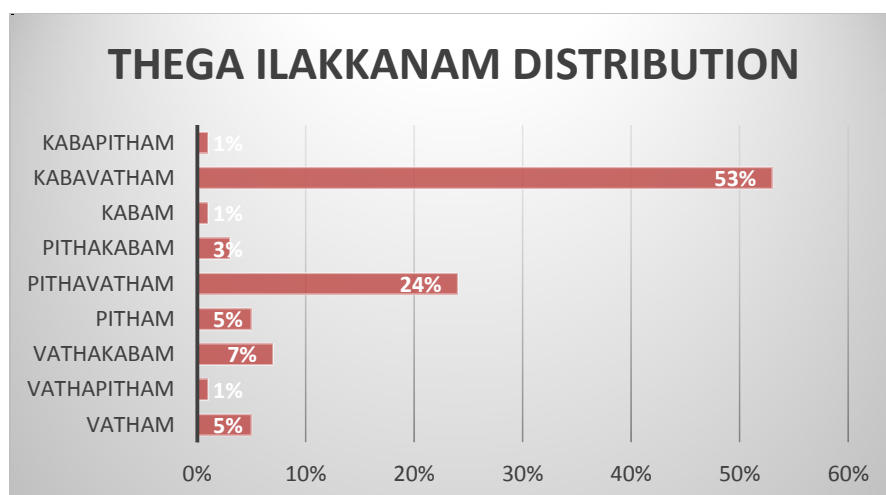
PITHAM	5	5%
PITHAVATHAM	4	4%
PITHAKABAM	8	8%
KABAM	2	2%
KABAVATHAM	14	14%
KABAPITHAM	67	67%

**Inference:**

Out of 100 cases, 67% cases had Kabapitha naadi, 14% cases had Kabavatha naadi, 8% of cases had Pithakaba naadi, 5% of cases had Pitha naadi, 4% of cases had Pithavatha naadi and 2% of cases had Kaba naadi.

**Table 12:-thega ilakkanam**

THEGA DISTRIBUTION	ILAKKANAM	NUMBER OF PATIENTS	PERCENTAGE
VATHAM		5	5%
VATHAPITHAM		1	1%
VATHAKABAM		7	7%
PITHAM		5	5%
PITHAVATHAM		24	24%
PITHAKABAM		3	3%
KABAM		1	1%
KABAVATHAM		53	53%
KABAPITHAM		1	1%



**Inference:**

Out of 100 patients, 53% cases were Kabavatha thegi, 24% of cases were Pithavatha thegi, 7% of cases were Vathakaba thegi, 5% cases were Vatha thegi, and Pitha thegi and 1% of cases were Vathapitham, Kabam, and Kabapitha thegi.

**Discussion:-**

**“Naadi sparisam naa niram mozhi vizhi Malam moothiramivai maruthuvar ayudham”**

**-Theraiyar**

These are eight weapons of Siddha physicians to diagnose a disease which also includes thega ilakkanm (body constitution). Udarkattukal (Saaram, Senner, Oon, Kozhuppu, Enbu, Moolai, Sukkilam) formed the body Constitution. Hence we should know perfectly about the thega ilakkanm of the patient before diagnosis and treatment

In this following comment detailed explanation about knowing Thega ilakkanam is mentioned :

**“Naadi ari thanmaiyum mozhi Thega vunar vanmaiyum”**

**-Siddha maruthuvanga surukkam (page no 457)**

One good Siddha physician should know about thega ilakkanam before going to diagnosis and treatment methods. Thega ilakkanam not only helpful for diagnosis and also helps in treatment methods and preventive measures.

Individual body constitution is more prone to some disease, in that condition we can apply the preventive measures mentioned by sage Theraiyar.

The primary purpose of the study is to assess the common body constitution in Hypothyroidism. Evaluating body constitution as a predisposing factor can help in speculate the condition in an individual and proceed for further screening tests.

Hence Thega ilakkanm is essential for diagnosis, therapeutic aspect for every Siddha physician.

**Conclusion:-**

1. The knowledge about udaliyal will foster physician's efforts of providing a personalised treatment protocol inclusive of dietary, behavioural modifications.
2. Employing udaliyal in clinical practice will help in understanding its significance, and its versatility can be documented through prospective cohort studies.
3. Since udaliyal studies various dimensions of the physical and mental state of an individual, it will aid in prevention of diseases and evaluating prognosis when used in addition to conventional diagnostics.
4. The results explained that Females, Desk workers and Individual with anxiety issues, Kabavatham body constitution were more Prone to Kuraiveethana noi. Kabapitha naadi was found to be associated with Kuraiveethana noi.

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