

# Morbidity Profile of Patients Attending OPD of Siddha Regional Research Institute, Puducherry

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## ABSTRACT

**Introduction:** Siddha, traditional Tamil system of medicine, which has been prevalent in the ancient Tamil land, is the foremost of all other medical systems in the world. Its origin goes back to BC 10000 to BC 4000. The uniqueness of Siddha system is evident by its continuous service to the mankind for more than 5000 years in combating diseases and also in maintaining its physical, mental and moral health while many of its contemporaries had become extinct long ago. **Methods:** The present study was done to report the morbidity profile of patients attending out-patient department (OPD) of Siddha Regional Research Institute (SRRI), Puducherry. The hospital records were reviewed and the data of all patients who have attended the OPD of SRRI during April 2012 to March 2017 (5 years) were retrieved. Both new and old cases (patients) attending the OPD were included. **Results:** The results of the present cross sectional study has revealed that out of 13 system wise classification of diseases, five namely, *Enbumootunoigal* (Bone/ Joint diseases), *Tholnoigal* (Skin diseases), *Swasanoigal* (Respiratory Diseases), *Unavupaadhainoigal* (Gastro intestinal disorders) and *Siruneeraganoigal* (Urinary Disorders) were found to be the top 5 morbidities of patients attending the OPD. **Conclusion:** From the present study, it can be concluded that degenerative diseases like *AzhalkeezhVaayu* (Osteo arthritis), Auto immune diseases like *Kalanjagapadai* (Psoriasis), Respiratory diseases like *Irumal* (Bronchitis) and Non-communicable diseases *Gunmam* (Acid peptic diseases) and *Neerizhivu* (Diabetes mellitus) were the common morbidities among the patients attending the OPD of SRRI, Puducherry.

## KEYWORDS

*Azhalkeezhvaayu, Enbumootunoigal, Gunmam, Morbidity, Neerizhivu, Siddha.*

## 1.0 INTRODUCTION

Increased levels of chronic illness and escalating costs for health care management are the great challenges faced by the health systems of the world. Nowadays, high demands of individualized and patient centric care are the top most expectations of the patients and healthcare providers.<sup>[1]</sup> The World Health Organization (WHO) recommends the practice of the traditional systems of medicine as it is

affordable, safe and culturally acceptable. The major traditional systems of medicine in India are namely Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH).

Siddha, a traditional system of medicine which is more than 4000 years old, confined to southern part of India especially, Tamil Nadu.<sup>[2]</sup> Siddha medicine classifies disease & disorders into 4448 types.<sup>[3]</sup> Each of these diseases or disorders is believed to have 64 commonly

prescribed types of remedies. It is based on the principles of prevention of diseases rather than curative care.

The rural mass and those who believe in traditional system of medicine follow the Siddha systems to cure their disease and ailments. The low-income groups mainly depend on Siddha medicine because of its affordability and availability of medicine as well as healers in their area itself. The Siddha system is effective in treating chronic cases of liver, skin diseases, rheumatic problems, anaemia, prostate enlargement, bleeding piles and peptic ulcer. In recent years, there is a renewed interest in Indian systems of medicine particularly Siddha for major disease like tumor, melanoma, sarcoma, diabetes, hepatitis, cysts, fibroids, liver cirrhosis, arthritis, tuberculosis, pneumonia, syphilis, gonorrhoea, dermatological disease and AIDS because of its efficacy and affordability to common man.

Since, Siddha system of medicine is integrated at all levels of health care, it is important to know the patterns of diseases or symptoms for which care is sought in Siddha facilities. Though literature on the morbidity profile of patients attending allopathy is available, there is a scarcity on the morbidity profile on patients attending Siddha facilities. Hence this study was planned to report the morbidity profile of patients attending Siddha OPD at SRRI, Puducherry.

## 2.0 MATERIALS AND METHODS

This cross-sectional study was based on the data collected from the outpatient department of Siddha Regional Research Institute (SRRI), Puducherry, a peripheral research institute of Central Council for Research in Siddha (CCRS), Ministry of AYUSH, Govt. of India. It was established in the year 1979. An average number of 200- 220 patients were benefitted daily.

### 1.1. Study population

The data of all patients who have attended the OPD of SRRI (both new and old) during April 2012 to March 2017 (5 years) were included for the study.

## 3.0 RESULTS AND DISCUSSION

Table 1 shows the list of diseases treated in the OPD of SRRI. Both communicable and non-communicable diseases were treated. Among those diseases, five disease categories were found to have greater number of patients and that was depicted in Figure 1. From figure 2.1 to 2.5, it was obvious that the number of patients for these five disease categories were found to increase significantly in the past five years, from April 2012 to March 2017.

Table 2 shows the socio demographic characteristics of patients attending OPD of SRRI from April 2012 to March 2017. Among the total OPD population, about 13 to 18.5% of patients were above 60 years of age. Eighty to eighty-six % of OPD patients were below 60 years of age. In this study, about 13 to 18% of patients belonged to geriatric population whereas, only 10 to 15% attendance were reported at allopathic health facilities. This may be due to preference of geriatric patients towards Siddha system.<sup>[4-5]</sup> From the table, it was obvious that about 40 to 52% of patients were males and 47 to 50% patients were females. Every year, nearly 18 to 19% of new cases (patients) were enrolled for health care management whereas, approximately 81% of patients were old patients; they came for follow up care.

In SRRI, general public were provided with treatment for 13 system wise classification of diseases. They are *Swasanoigal* (Respiratory disorders), *Unavupaadhai noigal* (Gastro intestinal disorders), *Iruthayal ratha otta noigal* (Cardiovascular disorders), *Nina neernoigal* (Lymphatic diseases), *Suram/ Ammainoigal* (Pyrexia and viral infections), *Tholnoigal* (Skin diseases), *Enbu mootu noigal* (Bone/ Joint diseases), *Mana/Narambu mandala noigal*

(Neurological/ Psychological disorders), *Kan, Kaadhu, Mookku, Thondainoigal* (Eye and E.N.T. diseases), *Siruneeragoigal* (Urinary disorders), *Aanjananauruppunoigal* (Male reproductive disorders), *Mahalirnoigal* (Gynecological disorders) and other (Miscellaneous) diseases.

Figure 1 depicts top five morbidity profile of patients attending OPD of SRRI, Puducherry. Out of 13 types of diseases (*noigal*), five system wise diseases were found to be the topmost morbidities of OPD patients namely, *Enbumootunoigal, Tholnoigal, Swasanoigal, Unavupaadhainoigal and Siruneeragoigal*. The morbidity percentage of the same was found to be 31.21%, 15.98%, 12.21%, 6.86% and 6.77% respectively. Figure 2 explains the gender wise morbidity profile of the patients attending OPD of SRRI, Puducherry. The number of female patients was higher for *enbumootunoigal* than the remaining four diseases.

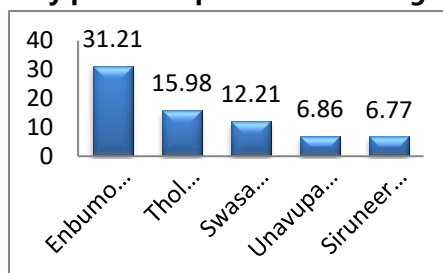
Figure 3.1 to 3.5 represents the morbidity profile of patients for individual years from April 2012 to March 2017. Each pie chart depicts the percentage of major morbidities. Besides these five topmost disease systems, OPD of SRRI also provides treatment for the 8 more disease systems namely, *Iruthayalrathaottanoigal* (Cardiovascular disorders), *Nina neernoigal* (Lymphatic diseases), *Suram/ Ammainoigal* (Pyrexia and viral infections), *Mana/Narambu mandala noigal* (Neurological/ Psychological disorders), *Kan, Kaadhu, Mookku, Thondainoigal*(Eye and E.N.T. diseases), *Aanjananauruppunoigal* (Male reproductive disorders), *Mahalirnoigal* (Gynaecological disorders) and Others (Miscellaneous) diseases. The morbidity

percentage of the above 8 disease systems were clubbed together and mentioned as others.

Figure 4 shows top five diseases reported in OPD at SRRI. Among 14 types of *Enbumootunoigal*, 42.58 % of patients have visited the OPD for the management of *AzhalkkezhVaayu* (Osteo Arthritis). Out of 23 types of *Tholnoigal*, 28.15% of patients have visited SRRI OPD for the treatment of *Kalanjagapadai* (Psoriasis). Among 4 types of *Swasanoigal*, 47.78 % of *Irumal* (Bronchitis) patients were treated at OPD of SRRI for the reported period of five years. Out of 21 types of *Unavupaadhainoigal*, 53.15 % of patients have visited the OPD of SRRI from April 2012 to March 2017 for the treatment of *Gunmam* (Acid peptic diseases). Among 5 types of *Siruneeragoigal, Neerizhivu* (Diabetes Mellitus) was found to be the top most disease having 77.87 % of OPD census for the reported period of 5 years.

A study conducted at Siddha Research Institute, Tamil Nadu has reported musculoskeletal disorders including arthritis (43.7%), Skin diseases (8.3%), respiratory infections (6.9%), diabetes (6%) and bronchial asthma (2.7%) as common morbidities.<sup>[6]</sup> The present study also reported that arthritis was the commonest morbidity. Similarly, studies from allopathic health facilities also reported muscular skeletal disorder (45%) as one of the common morbidities among elderly.<sup>[7-8]</sup> Also, it may be due to the general perception that Siddha system of treatment will be more appropriate for degenerative conditions like arthritis.

**Figure 1. Top five morbidity profile of patients attending OPD of SRRI, Puducherry**



**Table 1. List of diseases that are treated in the SRRI OPD, Puducherry**

<b>Communicable Diseases</b>	<b>Non Communicable Diseases</b>
<p><b>Swasa Noigal (Respiratory disorders)</b> Irumal (Cough), Illaippu Noi (Tuberculosis)</p> <p><b>Nina Neer Noigal (Lymphatic diseases)</b> Araiappu (Pubo) Kandamalai (Cervical lymphadenitis) Pathavanmeegam (Filariasis)</p> <p><b>Suram/ Ammai Noigal (Pyrexia and Viral Infections)</b> Suram (Fever), Iyavali Suram (Pneumonia), Muraisuram (Malaria), Valiyasuram (Influenza), Kudalmasayanisuram (Typhoid), Ammainoi (Eruptive fever), Akki (Herpes Zoster)</p> <p><b>Thol Noigal (Skin diseases)</b> Bala Karappan (Infantile Eczema) Karappan (Eczema)</p> <p><b>Kan, Kadhu, Mookku, Thondai Noigal (Eye and ENT diseases)</b> Kan Noigal (Eye Diseases), Kadhu Noigal (Ear Diseases), Thondai Noigal (Throat Diseases), Lasuna Thabitham</p>	<p><b>Swasa Noigal (Respiratory disorders)</b> Kanam (Respiratory Diseases(P)), Iraippu Noi (Bronchial Asthma)</p> <p><b>Unavu Paadhainoigal (Gastro Intestinal diseases)</b> Maandham (GI diseases(P)), Thodam (Infantile Diarrhoea), Vandhi (Vomitting), Vai pun (Oral stomatitis), Gunmam (Acid peptic disorders), Vayitru Vali (Abdominal pain), Kamalai (Jaundice), Kalleeral Noi (Liver disorders), Pitthapai Kal (Cholelithiasis), Kanaiya Noi (Pancreatic disorders), Peru Vayiru (Ascites), Kazhichal (Diarrhoea), Nina Kazhichal (Dysentery), Kaduppu Kazhichal (Bacillary dysentery), Seedha Kazhichal (Amoebiasis), Malachikkal (Constipation), Moolam (Haemorrhoids), Pavuthiram (Fistula-in- Ano), Asana Vedippu (Fissure in- Ano), Kudar Kirumi (Worm infestations), Virehi Adithallal (Rectal prolapse).</p> <p><b>Enbu Mootu Noigal (Bone/ Joint diseases)</b> Sulukku (Sprain), Perasana Narambu Thabitham (Sciatica), Iduppuvali (Lumbago), Azhal Keel vayu (Osteoarthritis), Udhiravathasuronitham (Rheumatoid Arthritis), Thandaga Vatham (Lumbar Spondylosis), Cegana Vatham (Cervical Spondylosis), Kumba Vatham (Periarthritis), Azhallya keel vayu (Gout), Kudhikalvatham (Calcaneal Spur/ Fascitis), Enbumurivu (Bone Fracture), Moottu Vilagal (Joint dislocation), Thasainaarkizhivu (Ligament tear).</p> <p><b>Thol Noigal (Skin diseases)</b> Kalanjagapadai (Psoriasis), Venpulli (Vitiligo), Thee Chutta pun (Burns), Pungal (Ulcers), Madhumeega pun (Diabetic Ulcer), Thol Arippu (Pruritus), Kaanakkadi (Urticaria), Padarthamarai (Ring worm infection), Mugapparu (Acne), Pitha Vedippu (Fissure foot), Kaal Aani (Corn foot), Seezhkatti (Abscess), Kazhalaigal (Tumors), Podugu (Dandruff), Puzhuvettu (Alopecia aerata), Mudiuthiral (Hair fall), Ila Narai (Premature grey hair), Mangu (Melasma), Naga noigal (Nail diseases), Sorisirangu (Scabies).</p> <p><b>Iruthayalratha Otta Noigal (Cardio Vascular Disorders)</b> Veluppu Noi (Anaemia), Adhi Kurudhi Azhutham (Hypertension), Iruthaya Noigal (Cardiac Diseases).</p>

(Tonsillitis), *Mookku Noigal* (Diseases of Nose), *Peenisam* (Sinusitis), *Neerpeenisam* (Allergic rhinitis)

**Siruneeraga Noigal (Urinary disorders)**

*Moothirakiricharam* (Oliguria), *Sottuneer* (Bed wetting/ Enuresis)

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**SiruneeragaNoigal (Urinary disorders)**

*Kalladaippu* (Urolithiasis), *Purastha Kola Perukkam* (Benign Prostatic Hyperplasia), *Neerizhivu* (Diabetes mellitus)

**Mana/ Narambu Mandala Noigal (Neurological/psychological disorders)**

*Sirathamba Vatham* (Cerebral palsy), *Valippu* (Epilepsy/ Seizures) *Pakkavayu* (Hemiplegia), *Otturai Thalaivali* (Migraine), *Urakkaminmai* (Insomnia), *Ula Noigal* (Mental Disorders)

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**Aan Janana Uruppu Noigal (Male Reproductive disorders)**

*Vindhuneer Ezhivu* (Nocturnal emission), *Korukku Noi* (Syphilis), *Vettai Noi* (Gonorrhoea), *Vidhaianda Noigal* (Scrotal Diseases), *Veeriyaminmai* (Erectile dysfunction), *Aanmaladu* (Male infertility)

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**Mahalir Noigal (Gynecological disorders)**

*Soothaga Thadai* (Amennorrhoea), *Soothaga Vali* (Dysmenorrhoea), *Vettai Noi* (Gonorrhoea), *Perumbadu* (Dysfunctional Uterine Bleeding), *Karuppai Sathai Kattigal* (Fibroid Uterus), *Sinaipai Neerkatti* (Polycystic Ovarian Syndrome), *Pen maladu* (Female infertility), *Vellai Noi* (Leucorrhoea), *Poopu Kolaaru* (Premenstrual Syndrome), *Poopu Mudivu Kolaaru* (Post menopausal syndrome), *Karuppai Adithallal* (Prolapse of the uterus).

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**Others (Miscellaneous diseases)**

*Marabu Noigal* (Autism/ADHD), *Sobai Noi* (Anasarca), *Putru Noi* (Malignancy), *Vatha Soolai* (Rheumatism), *Thalai Vali* (Headache), *Thega Vanmai Kuraivu* (General debility), *Naala Vibhatha Pudaippu* (Varicose veins), *Naala Vipatha Pun* (Varicose ulcer), *Adhithoola Noi* (Obesity), *Kuraiveethana Noi* (Hypothyroidism), *Migukozhuppu Noi* (Dyslipidemia), *Kozhuppu Kazhalai* (Lipoma), *Athiviyarvai* (Hyperhydrosis), *Thalaichutral* (Vertigo), *Karapadhasoolai* (Peripheral neuritis), *Adipatta Veekkam* (Contusion), *Pira Noigal* (Other diseases).

**Table 2. Sociodemographic characteristics of patients attending OPD of SRRI**

S.No.	Categories	No. of patients (%)				
		2012-13	2013-14	2014-15	2015-16	2016-17
1.	Age					
	<60	22212 (85.88)	23914 (86.75)	25177 (81.41)	32679 (86.39)	33928 (82.64)
	≥60	3653 (14.12)	4287 (13.86)	5749 (18.59)	5148 (13.61)	7125 (17.36)
2.	Gender					
	Male	13528 (52.32)	14188 (51.47)	15226 (49.23)	18727 (49.50)	20232 (49.28)
	Female	12337 (47.68)	13379 (48.53)	15700 (50.76)	19100 (50.50)	20821 (50.72)
3.	Type of case					
	New case	4711 (18.21)	5413 (19.64)	5936 (19.19)	7330 (19.37)	7394 (18.01)
	Old case	21154 (81.78)	22154 (80.36)	24990 (80.81)	30497 (80.63)	33659 (81.99)

**Figure 2. Gender wise morbidity profile of patients attending OPD of SRRI, Puducherry**

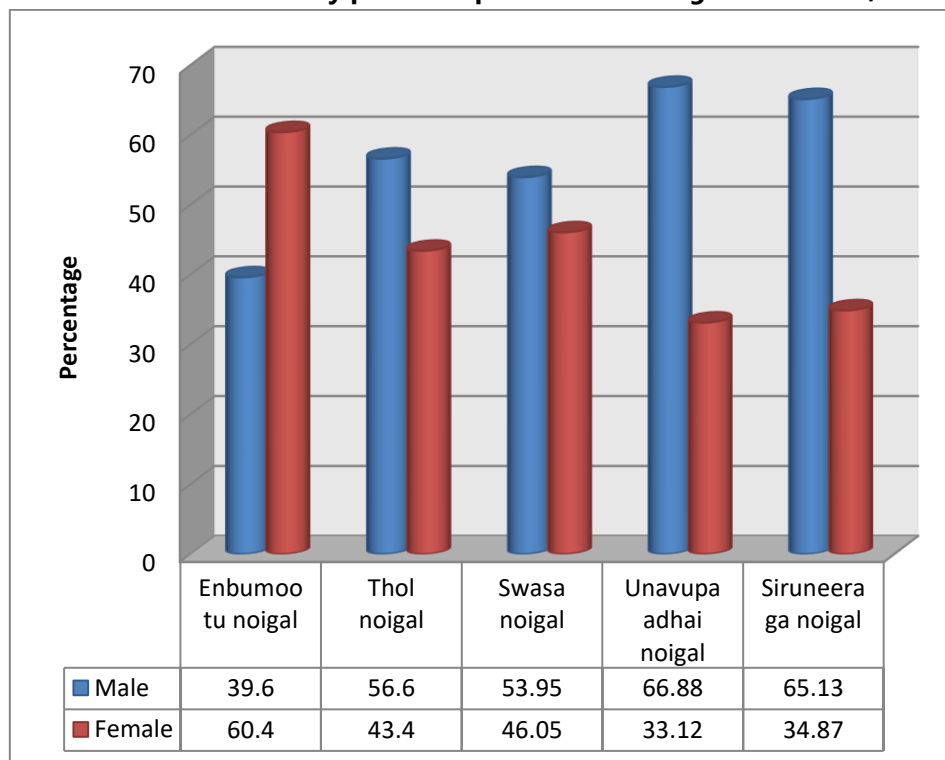
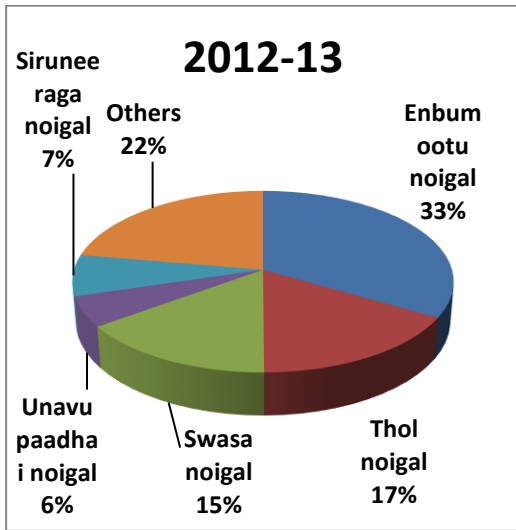
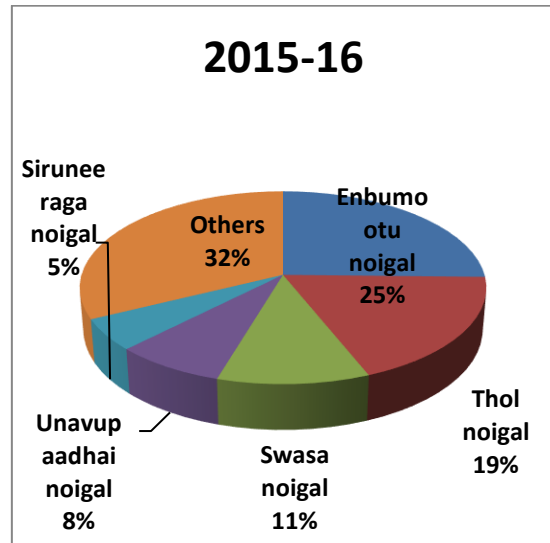


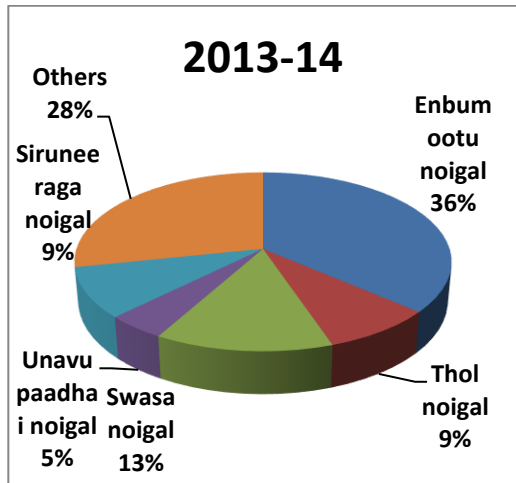
Figure 3. Morbidity profile of patients attending OPD of SRRI, Puducherry



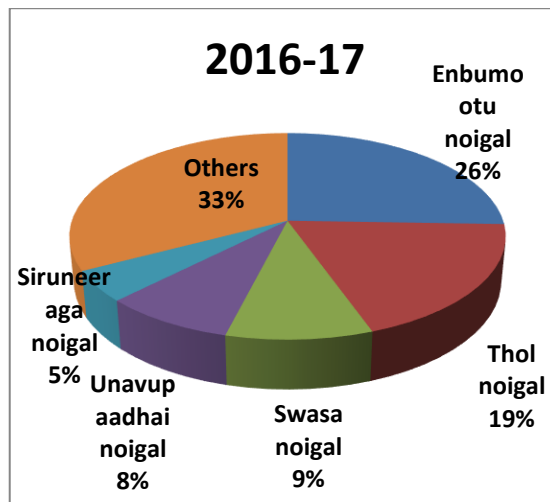
3.1. For the year 2012-2013



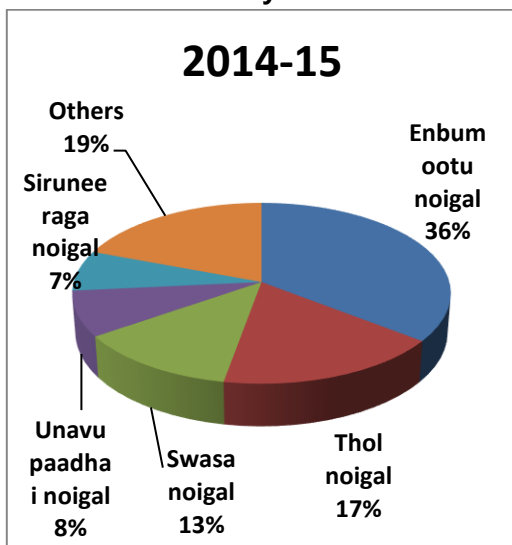
3.4. For the year 2015-2016



3.2. For the year 2013-2014

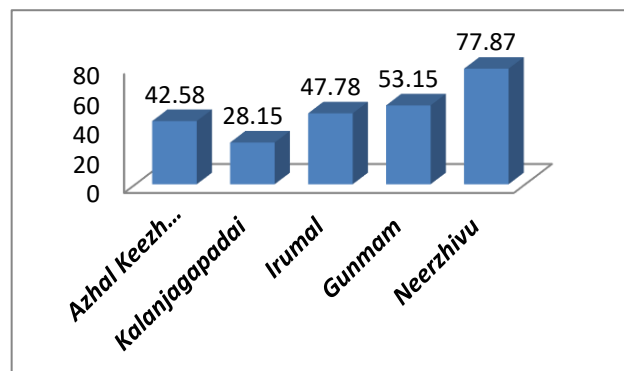


3.5. For the year 2016-2017



3.3. For the year 2014-2015

Figure 4. Top five diseases reported in OPD at SRRI



#### 4.0 Conclusion

From the present study, it can be concluded that degenerative diseases like *Azhal Keezh Vaayu* (osteo arthritis), auto immune diseases like *Kalanjagapadai* (Psoriasis), respiratory diseases like *Irumal* (Bronchitis) and non-communicable diseases *Gunmam* (Acid peptic diseases) and *Neerizhivu* (Diabetes mellitus) were the common morbidities among the patients attending the OPD of SRRI, Puducherry. Besides, there was an increasing response for Siddha was observed among the common public for the past five years. In upcoming years, this positive response may increase further and this indigenous system of medicine would flourish as like ancient years.

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