

**A hospital based cross sectional study on the prevalence of musculoskeletal diseases in Varmam out-patient department, Siddha Central Research Institute, Chennai**

C. ANBARASI <sup>1\*</sup>, S. NATARAJAN <sup>2</sup>, R. MEENA<sup>3</sup>, S. D. MURALIDASS <sup>4</sup>

**Author details:**

<sup>1,2,3</sup> Research Officer (Siddha), Varmam, Thokkanam and Traditional Bone Setting Division,

Department of Clinical Research, Siddha Central Research Institute, Chennai

<sup>4</sup>, Research Associate

Siddha Central Research Institute, Chennai

**Address for the Correspondence:**

C. Anbarasi

Research Officer (Siddha)

Siddha Central Research Institute

Central Council for Research in Siddha

Arumbakkam, Chennai

E-mail: dranbu1208@gmail.com

**ABSTRACT**

**Introduction:**

Pain is one of the most common reasons for seeking medical care. Siddha Varmam therapy is one among the unique entity of Siddha system of medicine providing relief to pain. The purpose of this study was to characterize patients visiting the Siddha Varmam out-patient department for pain complaint.

**Materials and methods:**

This is a cross sectional descriptive study to find the prevalence of musculoskeletal disease presenting with pain

among the patients visiting the Siddha Varmam OPD at Siddha Central Research Institute (SCRI), Chennai from April 2015 to March 2016.

**Results:**

The total new patients were 3190 with male (49.18%), female (49.49 %), male child (0.85 %) and female child (0.47 %). The total review patients were 12579 with male (45.81 %), female (53.96 %), male child (0.16 %) and female child (0.079 %). The highest prevalence was seen in *Azhal keel vayu* (osteoarthritis) (23.68%), *Thandaga vatham* (lumbar

spondylosis) 19.62%, *Cegana vatham* (Cervical spondylosis) 15.26%, *Mootu vilagal* (joint dislocation) 10.18%, *Kumba vatham* (Adhesive capsulitis) 5.40%, *Udhiravatha suronitham* (Rheumatoid arthritis) 4.24%, *Enbu murivu* (Fracture) 2%.

### **Conclusion:**

Patients visiting the Siddha Varmam OPD indicated that the pain impacted their daily routine, and caused work disturbance. The most common reasons for patients with a pain complaint visiting the OPD were the disappointment from conventional medicine and successful previous experience by a family member or a friend. Our study reveals that currently the Varmam therapy gains importance in the management of pain and traditional bone setting.

**Key word:** Siddha, Varmam therapy, pain, musculo-skeletal disease

### **Introduction**

Pain is one of the most common reasons for seeking medical care. It is known to affect general health<sup>1</sup>, psychological health<sup>2,3,4</sup> and economic well-being<sup>5,6</sup>. The prevalence of chronic pain in the general population ranges from 10% to over 40%<sup>7</sup>. Patients with chronic pain use health services up to five times more than patients without pain<sup>8,9</sup>. One cross-sectional survey of patients with chronic pain disorders conducted in 12 primary care clinics in USA found that 52% reported using

complementary and alternative therapies for pain relief<sup>10,11</sup>. In another large study<sup>12</sup> the most popular alternative therapies for low back pain noted were spinal manipulation, acupuncture and massage.

Musculoskeletal disorders play an important contribution to the total burden of non-communicable diseases at global and national levels. It encompasses conditions from acute onset and short duration to lifelong disorders including osteoarthritis, rheumatoid arthritis, cervical spondylosis and low back pain. The long term pain and morbidity have a substantial influence on health and quality of life, imposing economic burden to the individual and to the society. WHO estimates that 40% of people over the age of 70 years suffer from OA knee, about 80% of the people at some time in their life have had low back pain at some point in their life.

Osteoarthritis (OA), is a leading cause of chronic disability between fourth and fifth decade of life<sup>13</sup>. Global statistics reveals over 100 million people worldwide suffer from OA, which is one of the most common causes of disability<sup>14,15</sup>. Globally, OA is the eighth leading cause of disability<sup>16</sup> with the joint most frequently associated with disability being the knee<sup>17</sup>. Epidemiological profile of this disease in India is not clear but it is estimated that osteoarthritis (OA) is the second most common rheumatological problem and is most frequent joint disease with prevalence

spondylosis) 19.62%, *Cegana vatham* (Cervical spondylosis) 15.26%, *Mootu vilagal* (joint dislocation) 10.18%, *Kumba vatham* (Adhesive capsulitis) 5.40%, *Udhiravatha suronitham* (Rheumatoid arthritis) 4.24%, *Enbu murivu* (Fracture) 2%.

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of 22% to 39% in India<sup>18</sup>. Prevalence of OA in India is reported to be in the range of 17 to 60.6%<sup>19</sup>. India is expected to be the chronic disease capital, with 60 million people with arthritis by 2025.

Lumbar spondylosis characterized by disc degeneration and osteophytosis is more prevalent among the middle-aged and elderly<sup>20,21</sup> causing low back pain.<sup>22</sup>

Neck pain, one of the most common musculoskeletal complaints become a public health problem. Its accelerating prevalence and devastating side effect is exerting substantial load on National wealth because of its impact is more on working adult age groups. About two third of the population experience neck pain at some point in their lives. Women are affected almost twice as much as men. Prevalence rises with age for men and women and is the highest in the age group between 50-59 years. The percentage of people in whom neck pain becomes chronic is generally thought to be about 10%.<sup>23</sup>

Adhesive capsulitis (AC) is a self-limiting condition. Patients typically present with an atraumatic history of progressive painful restriction in range of shoulder movement especially external rotation and abduction. AC is more common in women with a peak age of onset of 56 years. It can have a variable duration but usually lasting between 1-3 years.<sup>24,25,26</sup>

Although the aetiology of AC remains unknown, several risk factors are associated with this condition. These include previous trauma, increasing age, female gender, dyslipidaemia, hypertension, thyroid dysfunction and diabetes mellitus (DM).<sup>27-33</sup>. The prevalence of AC in the general population is classically quoted as 2%, though it has been suggested that the real figure is closer to 0.75%.<sup>34</sup>

As conventional medicine often fails at managing pain and hence seek other treatment methods. It is important to understand the characteristics of patients attending traditional medicine clinics for a pain complaint.

Siddha system of medicine encompasses Varmam therapy, a unique treatment for the management of pain. Varmam points are the vital life energy points through which the *pranan* (life energy) flows through the channels. Any imbalance in the flow of life energy causes diseases. Manipulating this flow helps in alleviating the disease condition. The act of restoring and normalizing the life energy by stimulating and applying pressure of various degrees to a particular anatomical point is achieved by Varmam therapy. This cross-sectional descriptive analysis was aimed to look for the percentage of patients attending Siddha Varmam out-patient department for pain management for various musculo-skeletal disorders.

## Methods

### Design:

This is a cross-sectional study.

### Study Setting:

Varmam out-patient department at Siddha Central Research Institute (SCRI), Central Council for Research in Siddha (CCRS), Arumbakkam, Chennai.

### Study Population:

All patients visiting the Varmam out-patient department at Siddha Central Research Institute, (SCRI) Chennai, during the period April 2015 to March 2016.

### Data collection:

The demographic details like age, gender and complaints of the patients were collected during the visit to the Siddha Varmam OPD.

### Statistical analysis:

A descriptive study was carried out and the percentages of the different categories of the qualitative variables were calculated.

### Results:

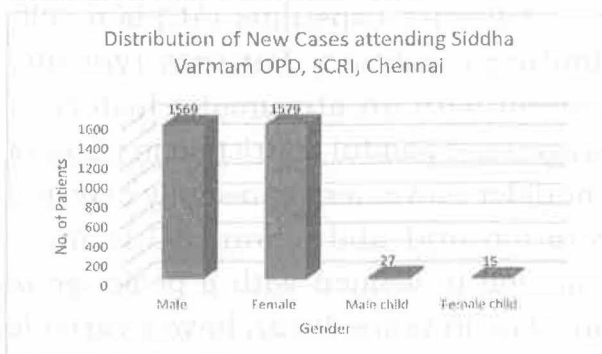
Among the total 15769 patients who visited the Siddha Varmam OPD, the total new patients were 3190 with male (49.18%), female (49.49%), male child (0.85%) and female child (0.47%). The total review patients were 12579 with male (45.81%) female (53.96%), male child (0.16%) and female child (0.079%).

The highest prevalence was seen in *Azhal keel vayu* (J4) (osteoarthritis) (23.68%), *Thandaga vatham* (J6) (lumbar spondylosis) 19.62%, *Cegana vatham* (J7) (Cervical spondylosis) 15.26%, *Mootu vilagal* (J12) (joint dislocation) 10.18%, *Kumba vatham* (J8) (Adhesive capsulitis) 5.40%, *Udhiravatha suronitham* (J5) (Rheumatoid arthritis) 4.24%, *Enbu murivu* (J11) (Fracture) 2%.

Figure 1 and 2 shows the distribution of new cases and old cases respectively.

Figure 3, shows the distribution of cases of various diseases mentioned in their codes. The code J1 represent *Sulukku*, J2 *Perasana Narambu Thabitham*, J3 *Iduppu vali*, J4 *Azhal keel vayu*, J5 *Udhiravatha suronitham*, J6 *Thandaga Vatham*, J7 *Cegana Vatham*, J8 *Kumba Vatham*, J9 *Azhal Iya Keel vayu*, J10 *Kudhi kal vatham*, J11 *Enbu murivu*, J12 *Moottu Vilagal* and J13 Miscellaneous conditions apart from the musculo-skeletal disease

Figure 4 shows the prevalence of the diseases in percentage of the patients attended the Varmam OPD



**Figure 1: Distribution of new cases attending Varmam OPD, SCRI,**

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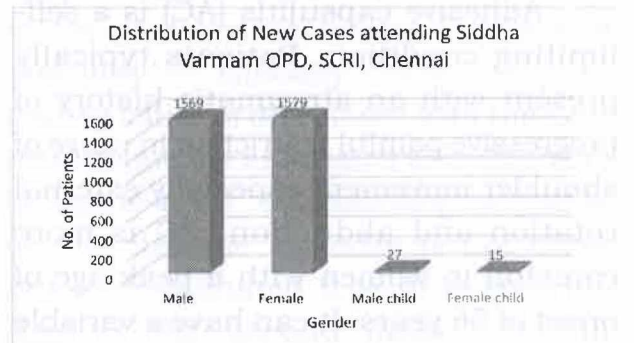
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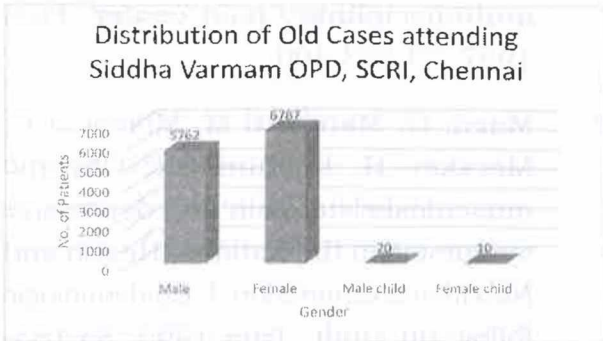
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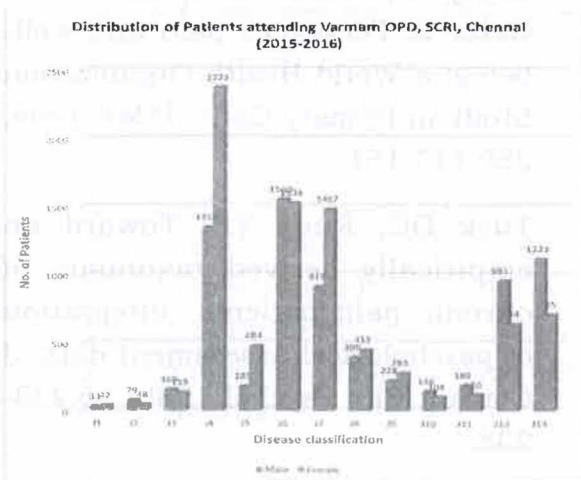


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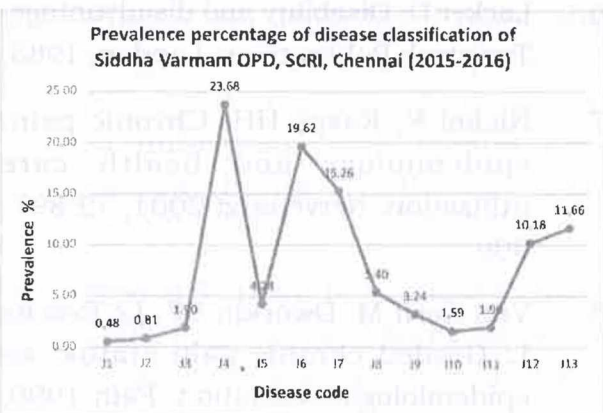
**Chennai**



**Figure 2: Distribution of old cases attending Varmam OPD, SCRI, Chennai**



**Figure 3: Distribution of the patients based on disease classification, attending Varmam OPD, SCRI, Chennai**



**Figure 4: Prevalence of the diseases of the patients, attending Varmam OPD, SCRI, Chennai**

**Discussion:**

The study conducted in Coimbatore showed a high prevalence of low back pain (40.7%) in subjects aged 20 years and above. The prevalence was significantly higher among women (52.9%) compared with men (28.4%).<sup>35</sup>

There are very few prevalence studies on Osteoarthritis Knee in India. The results of a community based hospital study conducted in India<sup>36</sup> at five sites reveals that the overall prevalence of knee OA was 28.7%.

The study conducted in Bangalore showed 17% prevalence of OA in the total population, 15.5% in males and 18.8% in females by the modified ACR criteria.<sup>37</sup>

Frozen shoulder is self-limiting condition and its prognosis is very limited. The study conducted in Pakistan showed the prevalence of frozen shoulder (11-30%) has been reported in diabetes mellitus (DM) patients and 2-10% in non-diabetic population.<sup>38</sup>

From the available data in this study it is obvious that the patients with knee pain (J4), low back pain (J6), neck pain (J7), shoulder pain (J8) and joint dislocations (J12) visit Siddha Varmam out-patient department for their pain management.

**Conclusions:**

Patients visiting the Siddha Varmam OPD indicated that the pain impacted their daily routine,

caused work disturbance and influenced considerably their daily life. The most common reasons for patients with a pain complaint visiting the Siddha Varmam OPD were the disappointment from conventional medicine and successful previous experience by a family member or a friend or neighbour. Adherence to treatment procedures carried in Varmam therapy and good compliance to follow-up visit aids the patients to manage the pain, maintain mobility and minimize disability.

Our study reveals that the Siddha Varmam therapy gains importance currently in the management of pain and traditional bone setting in well-structured hospital based settings.

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**Source of funding:** None

**Competing interests:** The authors declare that they have no competing interests.

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limb musculoskeletal abnormalities  
in type 2 diabetic patients in low  
socioeconomic strata in Pakistan, BMC  
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ABSTRACT

Introduction: This is an exploratory study to assess the prevalence of upper limb musculoskeletal abnormalities in type 2 diabetic patients in low socioeconomic strata in Pakistan. The study was conducted in a tertiary care hospital in Islamabad. The study included 100 type 2 diabetic patients who were referred to the hospital for the management of their diabetes. The patients were interviewed and a physical examination was performed. The prevalence of upper limb musculoskeletal abnormalities was 38%. The most common abnormalities were carpal tunnel syndrome (12%), rotator cuff tendinitis (10%), and osteoarthritis of the hand (16%). The prevalence of upper limb musculoskeletal abnormalities was significantly higher in the diabetic patients compared to the non-diabetic patients (p < 0.05). The study suggests that upper limb musculoskeletal abnormalities are common in type 2 diabetic patients in low socioeconomic strata in Pakistan. Further studies are needed to confirm these findings.

Keywords: Pain Management, Vata, Kapha, Pitta, Dosha, Ayurveda.

Causes for Pathological Vitiations  
Vata: Excessive intake of dry, cold, light food items, improper sleep during night, trauma, over exercise & traveling, irregular routine, excessive coitus, mental distress, fear & anxiety.

Restoration of Equilibrium of Vata  
Vata: Ghee, Sesame Oil, Mustard Oil, Honey, Ghee, Mustard Oil, Massage, Pottasium, Oil, Sesame, Mustard Oil, Digestion, Dry-Bristle, Avoid physical and mental stress.

Treatment through Ayurveda:  
Many people have a false belief that Ayurveda is no good in times of acute pain. Ayurvedic medicines should only be consumed in chronic illnesses and it always gives very slow results but the thing is they are unaware of the wonder management. There are the various ways to kill pain. So many external & internal medicines available in management of pain in Ayurveda.

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Shooting-pain: Generally shoots refers to any type of pain like burning, sharp, dull, throbbing etc. It is a pain which comes in spasms in a very short interval. It is a pain which comes in spasms in a very short interval. It is a pain which comes in spasms in a very short interval.