

CONCEPT OF *SNAYU SHARIR* ACCORDING TO *AYURVEDA* AND OBSERVATIONAL STUDY FOR THE EFFECT OF *YOGASANAS* ON THE FUNCTION OF *SNAYU*.

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ABSTRACT

In this project, the concept of *snayu sharir* was studied by review of *ayurvedic* literature and observational study was carried out to understand the effect of *yogasanas* on the function of *snayu*.

KEYWORDS: *Snayu, Snayu sharir, yogasanas.*

INTRODUCTION

Snayu is one of the important *sharir bhavas* given in the *Ayurveda*. It holds two bones together and makes them efficient to bear the weight of whole body. Also, it allows us to perform various movements. In the modern context, the structure and function of *snayu* described in sages

can be correlated to the structure and function of muscles. Here, the concept of *snayu* is studied from *ayurvedic* text, along with the observational study for effect of *yogasanas* on the function of *snayu*. For observational study purpose, *snayu* involved in movement of back are considered. The range of muscles producing the movements of back like flexion, extension, lateral flexion and lateral rotation is measured initially before the practice of *yogasanas* and finally after the practice of *yogasanas*. If the range of muscle increases, *yogasanas* could be considered effective in increasing the functioning of *snayu*.

AIM AND OBJECTIVE

To study the concept of *snayu sharir* from *ayurvedic* text and to understand the effect of *yogasana* practice on the function of *snayu* by clinical observation.

REVIEW OF LITERATURE

▪ Utpatti of Snayu

.. मेदसः स्नेहमादाय सिरास्नायुत्वमाप्नुयात् । सिराणां च मूढः पाकः स्नायूनां च ततः स्तरः।

Sushrut samhita, Sharirsthan 4/28,29

Meda dhatu with its *sneha* (oleaginous substace) generates the structures as *sira* and *snayu*. The *sira* is said to be formed by *mrudupaka* of *medadhatu* while the *sanyu* is formed by *kharapak* of *medadhatu*.

▪ Number of Snayu

नव स्नायुशतानि | पृष्ठेऽशीतिः .. ||२९||

Sushrut samhita, Sharirsthan 5/29

The total number of muscle in the body is said as 900. There are 80 muscles in the back.

▪ Type of Snayu –

स्नायूश्चतुर्विधा विद्यात्तास्तु सर्वा निबोध मे | प्रतानवत्यो वृत्ताश्च पृथ्व्यश्च शुषिरास्तथा ||३०||पार्श्वोरसि तथा पृष्ठे पृथुलाश्च शिरस्यथ ||३२||

Sushrut samhita, Sharirsthan 5/30,32

There are 4 types of *snayu* named as *Pratana*, *Vrutta*, *Pruthu* and *Sushira*. Back has *Pruthula* type of *snayu*, which is having elongated flat structure.

▪ Function of snayu

नौर्यथा फलकास्तीर्णा बन्धनैर्बहुभिर्युता | भारक्षमा भवेदप्सु न्यूक्ता सुसमाहिता ||३३||

एवमेव शरीरेऽस्मिन् यावन्तः सन्धयः स्मृताः | स्नायुभिर्बहुभिर्बद्धास्तेन भारसहा नराः ||३४||

Sushrut samhita, Sharirsthan 5/33,34

As every flank of boat is tied together tight by the rope so that it doesn't sink and can carry a load over it, the muscles in our body tie two bones together so that they become able to bear the weight of body and carry out many functions efficiently.

▪ Importance of knowledge of Snayu

यः स्नायूः प्रविजानाति बाह्याश्चाभ्यन्तरास्तथा | स गूढं शल्यमाहर्तुं देहाच्छक्नोति देहिनाम् ||३६||

Sushrut samhita, Sharirsthan 5/36

The detail knowledge of *bahya* and *abhyatar snayu* (Extrinsic and intrinsic muscles) makes one able to perform difficult surgeries successfully.

- **Important disorders related to *snayu***

Abhyantar aayam

स्नायुप्रतानमनिलो यदाऽऽक्षिपति वेगवान् | विष्टब्धाक्षः स्तब्धहनुर्भग्नपार्श्वः कफं वमन् ॥५५॥

अभ्यन्तरं धनुरिव यदा नमति मानवः | तदाऽस्याभ्यन्तरायामं कुरुते मारुतो बली ॥५६॥

Sushrut samhita, Nidansthan 1/55-57

When the vata dosha in *snayu* aggravates, it causes the spasm of the muscles and it throws the body into sharp forward bending (like in emprosthotonus condition) called as *abhyantar aayam* or *dhanuraayam*

Bahya aayam

बाह्यस्नायुप्रतानस्थो बाह्यायामं करोति च |

Sushrut samhita, Nidansthan 1/55-57

Likewise, when the aggravated *vata dosha* causes the backward arching of back, neck and spine (like in opisthotonos condition) is called as *bahya-aayam*.

MATERIAL AND METHODS**Study Design**

- **Conceptual study** – The concept of *snayu* was studied from *ayurvedic* text.
- **Observational study** - Quantitative type.

Participants were performing *yogasanas* for 45 min/day for 6 days/week for 4 months.

Sample Size and Study Population – 10 participants of age 30 to 60 years.

Sampling Technique – Simple random sampling.

Inclusion and exclusion criteria

Participants of age 30 - 60 years were considered for this study. While, people having neurological diseases of vertebral column, severe spinal cord deformity, rheumatoid Arthritis, fracture or any major systemic illness were not considered for this study.

Materials of Measurement - Goniometer and Measuring tape (To study the range of muscle).

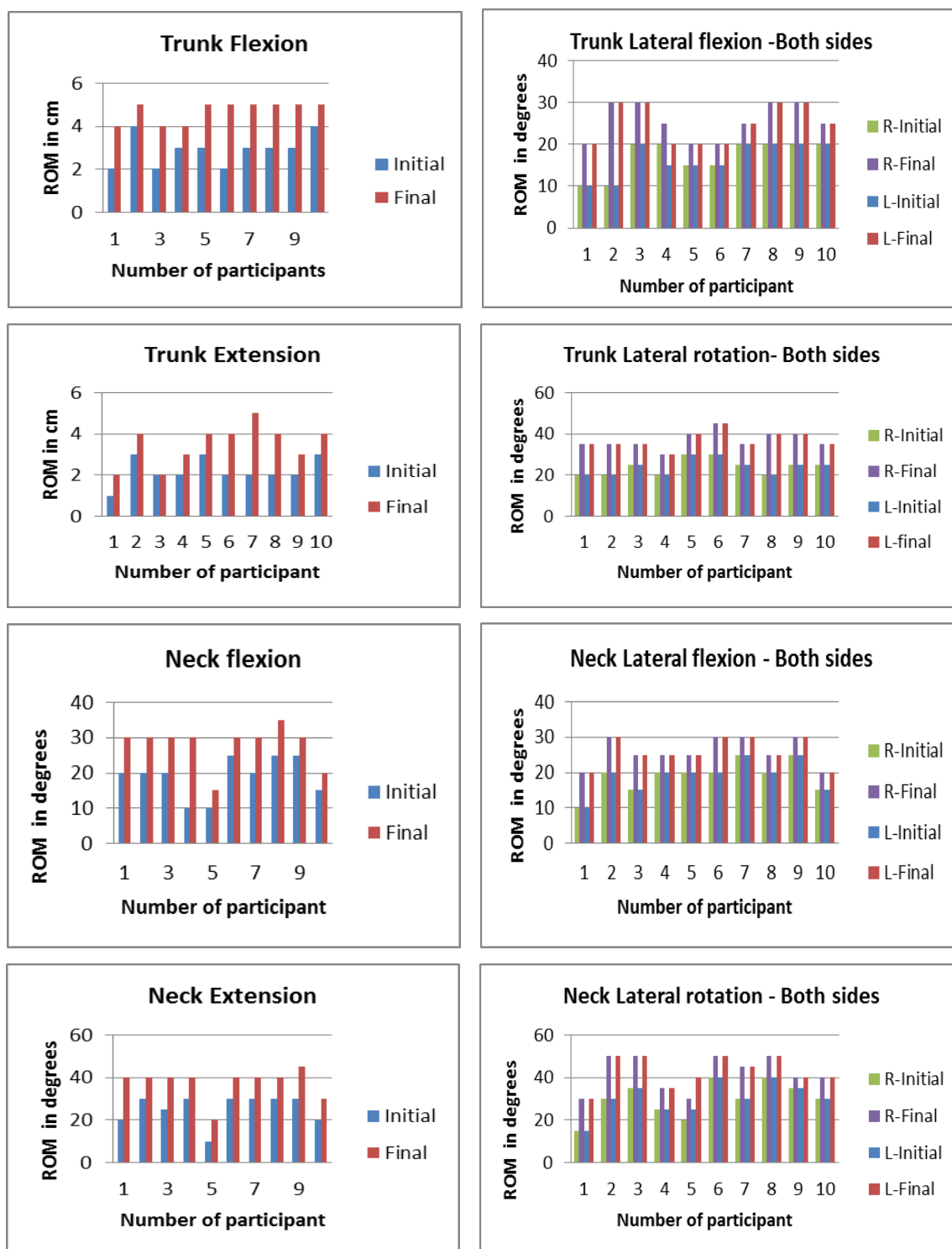
Operational Definitions Provided

Yogasanas – *Marjarasana*, *Bhujangasana*, *Parvatasana*, *Matsyasana*, *Makarasana*, *Dhanurasana*, *Chakrasana*, *Dandasana*, *Paschimottanasana*, *Vajrasana*, *Trikonasana*,

Tadasana, *Shavasana* and *Suryanamaskar* were some of the frequently performed *asanas* taken into consideration.

OBSERVATION

Here the initial and final (after 4 months) readings of the range of muscle for back movements are given in the form of bar diagram. (R- Right side, L- Left side)



DISCUSSION

Conceptual study

Sanyu is an important structure of the body. It provides us the liberty of numerous movements, protection, balance and a compact structure of body. It is said that the pain caused by an injured *snayu* is much more than the pain caused by any other structure of the body. Therefore its thorough knowledge is important.

Observational study

Every distinct posture gained as an *asana*, causes lengthening and shortening of specific muscle or group of muscles. This manifests the direct correlation of increased range of the muscles. For example – In *Bhujangasana*, the entire spinal extensor group work concentrically to create extension. Therefore, it increases the range of extension.

After the regular practice of *yogasanas*, notable increase in the range of muscle was seen. Therefore, regular practice of *yogasanas* could be considered effective in increasing the functioning of *snayu*.

CONCLUSION

- The role of *sanyu* in the normal functioning of body is very significant.
- The regular practice of *yogasanas* is effective in increasing the functioning of *snayu*.

FURTHER SCOPE OF STUDY

As the practice of *yogasanas* is a non-pharmaceutical intervention and it has considerable role in improvement the range of muscles, it could be useful in therapeutic aspect for which thorough literary and observational study is needed.

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