

## To Study About Postural Awareness And It's Relation To Pain Among Doctors Of Central Gujarat- A Cross Sectional Study

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### Abstract:

#### INTRODUCTION:

As like other professionals, doctors also face musculoskeletal pain frequently. Now a days it is a substantial health concern for doctors as they have to work more. To meet a work requirement, they must adjust and adapt to various awkward postures at work. So, the current research aimed to find Postural awareness among doctors and related to musculoskeletal pain.

**METHODOLOGY:** This cross-Sectional study included 53 participants with background as doctors. Both male and female participants were included in this cross-sectional study. Participants ranged in age and gender. A Postural awareness scale was used to measure postural awareness, VAS was used to determined pain intensity. Correlation study was done between pain intensity and postural awareness.

**RESULT:** From 53 participants, there were 32 females and 21 males. From them almost 51% were working with government and 49% with private sectors. From all, 27 doctors had moderate pain, 3 had severe pain and 23 had mild to moderate pain. Highest of them had pain at evening time. Postural awareness is 53%( score- 45.90). correlation between pain intensity and postural awareness is positive for this.

**CONCLUSION:** The study showed the positive correlation between pain intensity and postural awareness in doctors and less postural awareness for participants doctors.

#### INTRODUCTION:

Medical profession is demanding and requires long working hours, lengthy procedures, and constant posturing. Musculoskeletal disorders are common among health care professionals (HCP). The commonest musculoskeletal disorders reported include pain in the neck, back, shoulders, elbows, wrists, repetitive strain disorders, nerve injuries and chronic pain disorders.(1)

Research in light on awareness and compulsory coping techniques for people who use excessive sitting positions for more than 8 hours can increase the risk for musculoskeletal diseases (2).

Posture is not a position, however, a complex motif of reflexes, behaviours, and adaptive responses to something that opposes and withstands from being straight-up or functional by the concerted activity of many muscles employed to manage stability (3).

Many researchers raised the need for the awareness required for the doctor's postural-related musculoskeletal pain and established the need for awareness based on posture. Despite the higher prevalence rate, there is no study on postural awareness with musculoskeletal pain. So, the present research intends to find the postural awareness among doctors.

#### METHODOLOGY:

- Study Type: Cross sectional study
- Study Sample: Doctors from central areas of Gujarat
- Sampling method: simple random sampling
- Sample size: 53

#### Inclusion criteria:

- Doctors willing to participate
- Both working male & female.

#### Exclusion criteria:

- Any pathology related to musculoskeletal
- Any systemic pathology

Nature and purpose of the study was explained and Informed oral consent was taken from the participants. The period for data collection in the study was from March 2023 to July 2023 .The questionnaire were distributed which consisted of 3

Parts including, 1) Demographics (Name, age, gender, Qualification, service period, average working hours, working sector, type of work). 2) Pain assessment (duration of pain, intensity, pain pattern and pain area), 3) Postural awareness scale. Data analyses were performed using SPSS 20 software For Windows. Spearman correlation coefficient was used to assess the relationship between pain and postural awareness. The significance level was set at 5%.

## Result

The sample composed of 53 participants with average age of 36 years, males and females (respectively 32 and 21)

**Table 1: service period**

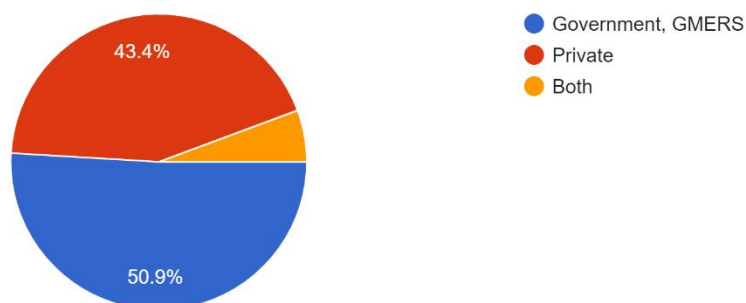
Service period	No. Of participants
>4 years	18
4-8 years	12
>8 years	23

**Table 2: average working hours per day**

Average working hours per day	No. of participants
<6 hours	5
6-8 hours	25
>8 hours	23

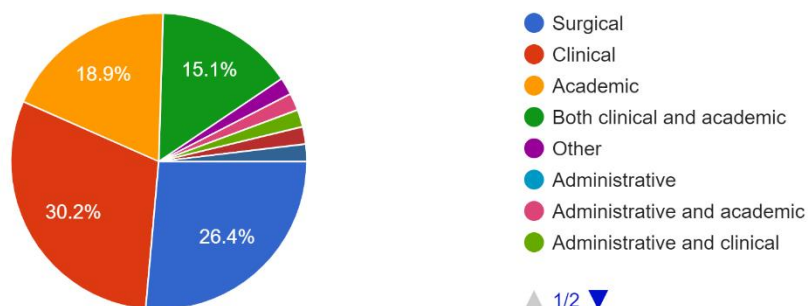
**Graph: 1 working sector**

Working sector  
53 responses



**Graph 2: Type of work**

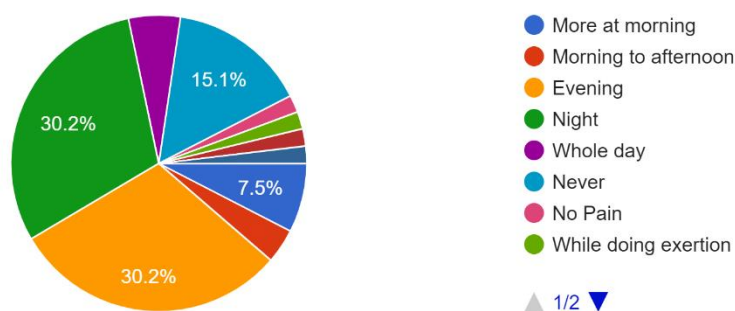
Type of work  
53 responses



**Graph 3: Pain pattern**

Pain pattern

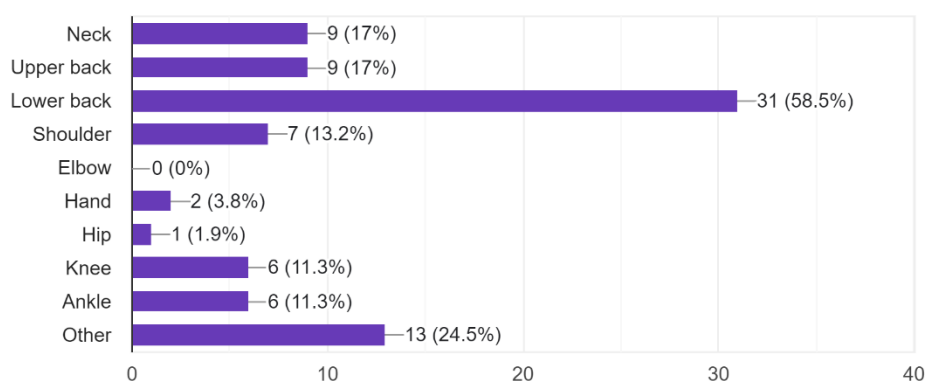
53 responses



**Graph 4: Area of pain**

Select area of pain

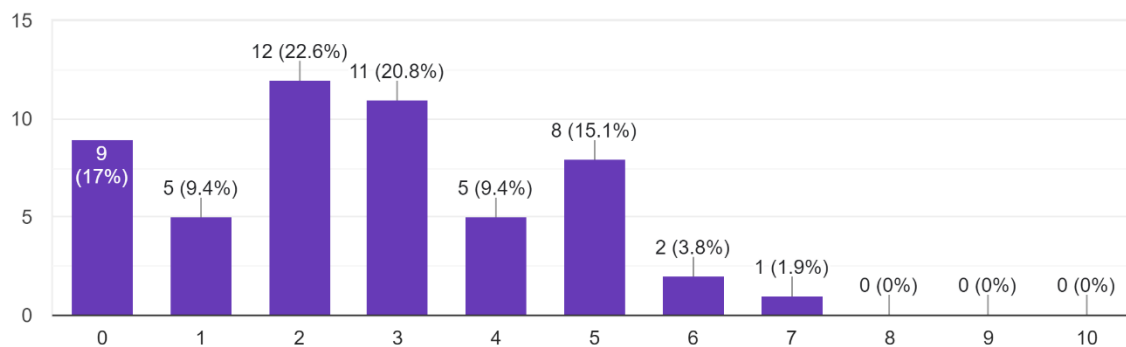
53 responses



**Intensity of pain according to VAS:**

Intensity of pain

53 responses



**Postural awareness scores:**

Questions	Average score
I need to concentrate very much in order to become aware of my body posture.	3.8
When I assume a poor body posture, I often do not notice it until I develop pain.	3.4
When sitting, I often slump without being aware of it.	3.4
When I am concentrating on a specific activity, I often assume a certain body posture without knowing it.	3.5
It is difficult for me to consciously assume a specific body posture.	3.3
While I am working, I regularly check my body posture.	3.2
Through my body posture, I can actively influence the impression I make on other people.	4
Throughout the day, I am continually aware of how I am currently sitting or standing	3
I often call into my awareness how I am currently sitting or standing.	3.4
Even during focused work, I am continually aware of my body posture.	2.8
Through my body posture, I can consciously control my mood.	2.8
I notice whether or not my body posture is good for me only when I concentrate on it.	3.8

Average score is 40.4 out of 84. So awareness is 48% which is quite less and spearman correlation coefficient showed significant positive mild to moderate correlation between pain VAS and postural awareness ( $r=0.3$ ,  $p<0.001$ ).

#### Discussion:

Our results in the present study on 53 doctors from central Gujarat, majority of working more than 8 hours per day, they have more pain between 1-4 days per week. Majority of them have pain in evening and have more pain at areas of back and neck. Pain is mild to moderate on VAS scale. There is also significant mild to moderate positive correlation between both VAS and Postural awareness in doctors. ( $p<0.001$ ).

Moreover, Postural awareness score is lesser than half (48%) showed a lower score- indicating less postural awareness. Due to faulty posture many musculoskeletal pain occurs., as per our results, these pains are more in evening and also more in back indicating clinical relation. According to pain scale, it is mild to moderate, which also shows postural related pain.

According to (Tamkanat et al.,) research finding Musculoskeletal diseases had a high frequency among female students due to prolonged awkward posture. (4).

According to (Holger Cramer et al.,) Postural awareness is associated with pain intensity and physical and mental impairment in patients with chronic pain improvement in pain intensity through multimodal intervention.(5)

#### Conclusion:

Based on the results obtained after the completion of the present research concludes that there is significant less postural awareness among doctors with musculoskeletal pain, of which very less participants are conscious of their body posture while working. Postural awareness should be include to decrease posture related musculoskeletal pain. By making awareness in doctors, large amount of populations can be educated.

#### Reference:

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