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Impact of Online Teaching on Neck Pain amongst Physiotherapy Academicians during Covid-19 Pandemic

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Abstract:- A survey of 113 physiotherapy academics was done to find out how the new teaching and learning method affects neck pain, especially since online education is now the primary platform. The advantage of which can be making oneself mindful of troubles and executing successful ways so new training giving is gone on without settling for less on actual wellness. Using the Neck Disability Index, a straightforward patient-reported outcome measure, a cross-sectional online survey was conducted.

Objective: There were n=84 people with no disability (74 percent), n=28 with a mild disability (24 percent), n=12 with a moderate disability (2 percent), n=0 with a severe disability (0 percent), and n=0 with a total disability (0 percent). In addition, we discovered that among all ten sections of the Neck Disability Index, the section of pain during movement was affected by 44.7%, headaches by 30.4%, driving by 12.5%, and recreation by 17.9%.

Conclusion: The study came to the conclusion that students and teachers do suffer from mild disability as a result of neck pain during this pandemic. Because online teaching and learning may continue for a longer period of time, everyone must be aware of challenges and implement effective strategies to ensure that new education is imparted without compromising physical fitness and to improve the efficiency of the entire process.

Keywords:- *Neck Pain, Covid19, Pandemic, Academicians, Neck Disability Index.*

I. INTRODUCTION

The World Health Organization (WHO) identified COVID-19 as a new corona virus disease outbreak in January 2020 and declared it a pandemic in March 2020. COVID-19 is a global public health crisis. On March 11, 2020, the World Health Organization (WHO) declared Novel Corona Virus Disease (COVID-19) to be a pandemic and reiterated its call for nations to immediately take action and increase their response to treat, detect, and reduce transmission in order to save people's lives.1 On March 24, 2020, the Prime Minister of India ordered a nationwide lockdown, restricting the movement of the entire 1.38 billion (138 crore) population of India as a preventative measure against the COVID The Prime Minister of India issued a directive to stop students from attending schools and universities. The request likewise included shutting mosques and houses of worship, closing down the boundaries, under the management of India's Tactical power and Public Safeguard Law.

To cure schooling issues, The Service of Advanced education and Logical Exploration gave new proposals toward changing over completely to web based showing in the colleges, setting up the way to another technique for learning.

The pandemic of Corona virus made a few schools and universities remain briefly shut. Numerous schools, universities, and colleges have discontinued face-to-face education. Because social distance is so important at this stage, this will have a negative impact on educational activities. Educational institutions are trying to find new ways to deal with this difficult situation. In order to ensure that education continued uninterrupted, this shutdown encouraged the expansion of online educational activities. One of the most common work-related injuries is neck pain, and numerous faculties have been involved in determining the most effective ways to provide online course material, involve students, and conduct evaluations. This paper defines neck pain as pain that occurs from the base of the skull (occiput) to the upper part of the back and extends laterally to the outer and superior bounds of the shoulder blade (scapula). More than 87% of computer workers report experiencing pain in the neck and shoulder, ranging from acute to chronic. People who spend a lot of time working on computers frequently experience neck pain. Pain in the neck can occur anywhere from the earlobe to the upper back or shoulder to the base of the skull. Four to five hours of everyday PC use is a prominent take an enormous risk torment in juvenile. When compared to workers who didn't have neck pain, computer users who did had less activity in their upper trapezius muscles and more activity in their cervical extensor muscles. 6 One of the fields in which neck pain occurs frequently and frequently is teaching. It is known that people with forward head posture (FHP) are more likely to develop neck pain and related disability, while prolonged use of computers, which has increased as a result of online education during the pandemic.

II. MATERIAL & METHODOLOGY

- **Study design**: Cross-sectional study
- **Study type**: Observational study
- **Sampling method**: Convenient sampling
- **Study subject**: Physiotherapy academicians who are

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taking online lectures

- **Sample size**: 150
- **Study duration**: 6 months
- **Study area:** Maharashtra

III. INCLUSION CRITERIA

Both genders
Physiotherapy academicians taken/taking online classes
Work duration: Minimum 25-30 hours/week

IV. EXCLUSION CRITERIA

Any diagnosed neck condition/disability
Individuals undergoing physical therapy treatment involving neck
Individuals who have not taken online classes

V. DATA ANALYSIS

Table 1: Shows the visual analog pain rating scale.

Severity of Pain	No of individuals	Percentage points out of100
0	31	27%
1	49	44%
2	21	19%
3	8	7%
4	2	2%
5	1	1%
6	1	1%
7	0	0%
8	0	0%
9	0	0%
10	0	0%

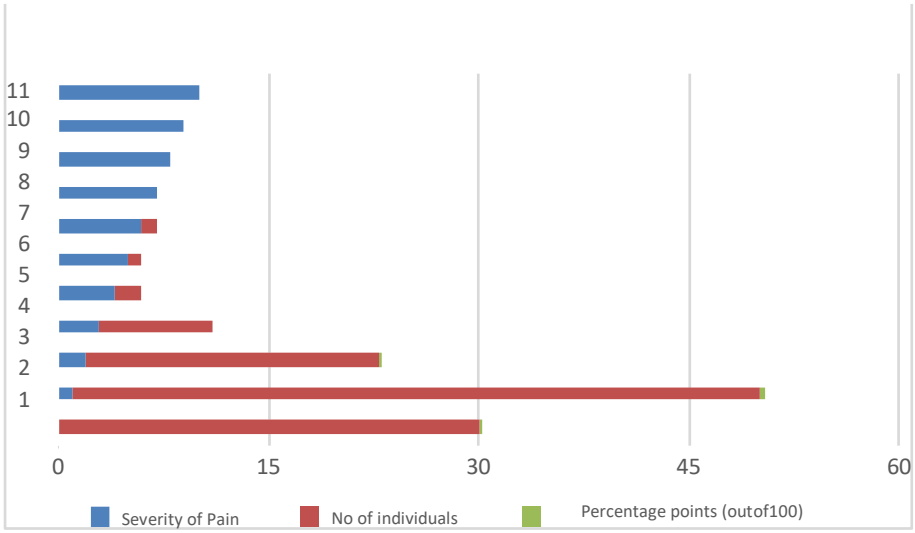

Fig. 1: Representation of VAS

Interpretation: The graph showing Total 113 responses in percentage out of which is suggestive of participants experiencing pain on a VAS scale are 0=27%, 1= 44%, 2= 19%, 3= 8%, 4= 2%, 5= 1%, 6= 1% and 7 to 10= 0%

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Table 2: Sections of Neck Disability Index.

Section of Neck Disability Index	Raw Score	Percentage points (out of 100)
Section 1: Pain Intensity	0-5	45%
Section 2: Personal Care	0-5	8%
Section 3: Lifting	0-5	7%
Section 4: Reading	0-5	45%
Section 5: Headaches	0-5	30%
Section 6: Concentration	0-5	4%
Section 7: Work	0-5	6%
Section 8: Driving	0-5	12%
Section 9: Sleeping	0-5	1%
Section 10: Recreation	0-5	18%

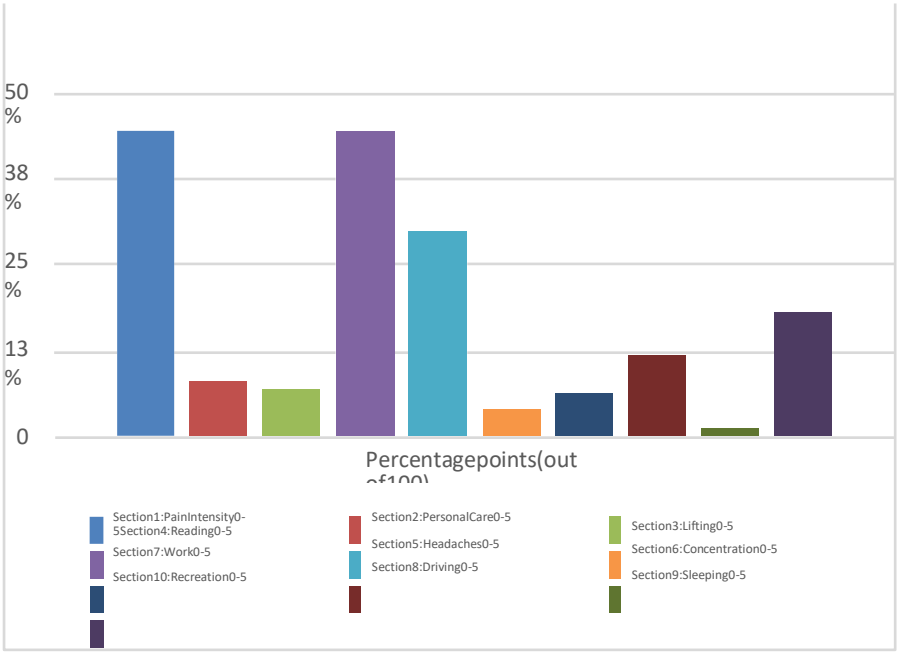

Fig. 2: Shows representation of sections of Neck Disability Index

Interpretation: The graph shows percentage of affection in each section of neck disability index of which section 1 (45%), section 2 (8%), section 3 (7%),section 4 (45%), section 5 (30%), section 6 (30%), section 7 (6%), section 8 (12%), section 9 (1%) and section 10 (18%).

Table 3: Levels of Neck Disability Index

Grades of neck disability index	Raw score	No. of individuals (out of 113)	Percentage points (out of 100)
No disability	0-5	83	74%
Mild Disability	6--14	28	24%
Moderate Disability	15-24	2	2%
Severe Disability	25-34	0	0%
Total Disability	35-50	0	0%

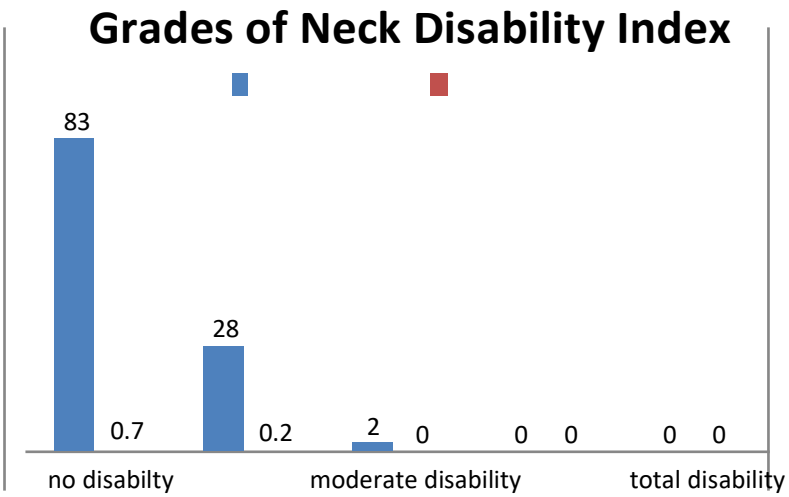

Fig. 3: Representation of levels of Neck Disability Index

Interpretation: The graph showing the graph and the table represents that out of total no. of participants 74% of population had no disability, 24% had mild disability, 2% had moderate disability, 0% had severe disability and 0% had total disability.

VI. DISCUSSION

This study was a straightforward cross-sectional survey of physiotherapy academicians to find out how their ability to adapt to this new online teaching method during COVID-19 has been affected by neck pain from spending long hours in front of a screen.

113 participants' Neck Disability Index scores were analyzed, and as shown in table1, individuals with no disability scored n=84 (74% points), those with mild disability scored n=28 (24% points), those with moderate disability scored n=12 (2%), and those with total disability scored n=0 (0% points).

During the COVID-19 pandemic, a recent study on the prevalence of neck and back pain among computer users working from home: An Electronic Overview expressed that70.5% of their members had torment or distress in body out of which 42.9% had torment in neck and upper back district, 36.3% had torment in the lower back locale and legs though 16.5% had torment or uneasiness in both locale.

In addition, we discovered that among the 10 sections of the Neck Disability Index, the section of pain at the movement was affected by 44.8 percent, reading by 44.7%, headaches by 30.4%, driving by 12.5%, and recreation by 17.9%, as shown in table 2.

These findings may be supported by a number of studies, one of which surveyed e-learning strategies used in nursing and medical education during the COVID-19 pandemic in India. There should be guidelines, such as the number of classes per day, length of each class, break between classes, and curriculum, among other things. to further develop the maintenance limit in understudies and decrease medical problems. Additionally, they discovered that pre-existing health conditions (p 0.0001) and class durations of more than four hours per day (p 0.0001) predicted the occurrence of headache, eyestrain, anxiety, neck/back pain, and sleep disturbance.

The unnatural position we assume causes micro trauma and stress to the upper back and neck, resulting in pain and discomfort, is especially likely to cause neck pain. The majority of the times we don't contemplate the manner in which we are sitting or make a restorative move until we are in torment. It is simple for us to develop bad posture habits while using our digital devices because it can take months to develop neck or upper back pain and even longer to really change our posture.

As physiotherapy academicians are familiar with ergonomic advice regarding posture corrections, job modifications, and job simulations, this study revealed that they still suffer from mild neck pain, which is affecting some of their normal daily activities as a result of their prolonged use of computers while teaching online.

By considering the crucial aspect of physical durability, e-learning's feasibility and effectiveness must be improved. To make e-learning effective and reduce health issues, teachers and students will need to provide continuous feedback and plan the schedule for online teaching.

VII. CONCLUSION

In light of the fact that online teaching and learning has become not only a necessity but also a necessity during this pandemic, we found in this study that teachers do suffer from mild disability as a result of neck pain. As a result, everyone needs to be aware of the challenges they face and implement efficient strategies in order to continue imparting new education without compromising physical fitness and increase the efficiency of the entire process.

REFERENCES

[1.] Bhosale, N, Andhare, N. Impact of online teaching and learning on neck pain amongst students and teachers during covid 19 pandemic. Turkish journal of Physiotherapy rehabilitation . 2021;32(51): 6670-6685.
[2.] Pawalia, A. Prevalence of musculoskeletal pain and discomfort die to online teaching and learning methods during lockdown in students and teachers. Journal of musculoskeletal research. 2020;44(45): 2512-2518.
[3.] Srikanth Umakanthan 1, Pradeep Sahu 2 etal Origin, transmission, diagnosis and management of coronavirus disease 2019 (COVID-19), Postgrad Med J 2020 Dec; 96(1142):753-758.