



KINESIOPHOBIA AND LOW BACK PAIN AMONG MEDICAL AND PARA MEDICAL STUDENTS OF INDIA

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**ABSTRACT**

Low back pain (LBP) is a common disorder involving the muscle, nerves, and bones of the back. Kinesiophobia or "fear of movement" was originally defined as a state where an individual experiences excessive, irrational, and debilitating fear of physical movement and activity because of a feeling of susceptibility to painful injury or reinjury. The subjects were medical and paramedical students of India. 111 subjects were screened for this study out. In the current study it was found that low back pain was 2.5 times more prevalent in paramedical students than medical students. Therefore, preventing and avoiding LBP during early adolescence can prevent LBP progression and thus, can decrease the associated morbidities. However, to prevent LBP, the associated modifiable and non-modifiable risk factors must be identified.

**KEYWORDS :** back pain, physiotherapy, students, fear of movement

**INTRODUCTION**

Lower back is defined as the area bounded by the bottom of the rib cage and the buttock creases. Low back pain (LBP) is a common condition affecting bones or nerves or soft tissues of back due to various reasons causing unpleasant sensation in lower back or radiations to the lower limb.

Literature shows that 30% of adolescents worldwide experience at least one LBP episode. Various studies found that LBP is a very common problem among adolescents, with an incidence that is the highest in the third decade of life.

Kinesiophobia or "fear of movement" was originally defined as a state where an individual experiences excessive, irrational, and debilitating fear of physical movement and activity because of a feeling of susceptibility to painful injury or reinjury. In clinical settings, fear was recognized as an important aspect in patients' disability, which needs to be addressed to accomplish a successful outcome as it influences the rehabilitation strategies. Avoidance behavior as an adaptation to pain in the long term would develop disuse, disability, and depression.

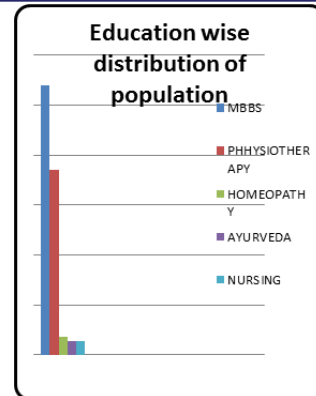
Currently there is scarcity of literature available on prevalence of low back pain in medical and paramedical students. Also, very limited data is available that shows the correlation of low back pain with kinesiophobia. Hence the current study was conducted to find correlation of low back pain with kinesiophobia.

**MATERIALS AND METHODOLOGY**

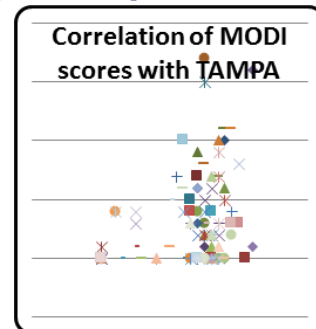
Google form was created which comprised of questions regarding demographics and MODI and TSK. Students between age of 18-30 years were given the online form via social media platform. Students who had any recent musculoskeletal injury (< 3 months), undergone recent surgery (< 6 months) or were diagnosed with psychiatric disorder, were excluded from the study.

**RESULT**

In the current study 111 students were included from which 60 students were medical and 51 students were from paramedical, 73 females and 38 males were evaluated. In the present study, the mean age of the population was 21.23±1.32 years.



Graph 1: Shows the number of students screened studying in MBBS (54.05%) and Physiotherapy (36.93%) and Homeopathy (3.6%) and Ayurveda (2.7) and Nursing (2.7%).



Graph 2: Correlation of kinesiophobia [ TAMPAs scale] with low back pain [MODI scale]

The correlation of Kinesiophobia (TAMPAs scale) with Low back pain (MODI scale) as found by Pearson's correlation test was r = 0.8 which is suggestive of statistically strong positive correlation.

**DISCUSSION**

This study was conducted on association of low back pain and kinesiophobia among medical and paramedical students. In the present study TAMPAs and MODI scales were used as an outcome tool for detecting low back pain and Kinesiophobia. A google form was created and shared online via email. In the current study total sample size of 111 individual was selected

with the mean age  $21.23 \pm 1.32$  years. The study showed students of paramedical field had higher prevalence of low back pain compared to medical field. In the current research it is also found that low back pain is associated with fear of movement (kinesiophobia)<sup>2</sup>

Person having low back pain must maintain their position for several hours during work prolonged exposure to static body, which increase the severity of problems of kinesiophobia. This explains the result of strong correlation found between MODI and TAMPAs scores.

According to a recent study<sup>11</sup>, when beliefs and fear of movement are present in patients with low back pain, kinesiophobia must be considered in the management of patients with LBP. Patients need to be aware that pain may be misinterpreted as being more severe than it is, causing them to be excessively cautious in their actions, thereby causing disability. The current findings regarding kinesiophobia in patients with chronic LBP were also significant statistically.

There is evidence to indicate that physiotherapy intervention can reduce low back pain and kinesiophobia and improve the function in those with low back pain.<sup>2</sup>

Many studies in their statistical analysis have shown the association of number years of work with low back pain and kinesiophobia. But the current study does not consider this.

## CONCLUSION

In the current study it was found that low back pain is highly prevalent among medical and para-medical students. Also, there is a statistically strong correlation of kinesiophobia (TAMPA scale) with low back pain (MODI scale). Therefore, preventing and avoiding LBP during early adolescence can prevent LBP progression, and thus, can decrease the associated morbidities. However, to prevent LBP, the associated modifiable and non-modifiable risk factors must be identified.

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