ABSTRACT

Background: Forward head posture (FHP) and rounded shoulders are becoming more common among college students, largely due to long hours of sitting, frequent smartphone use, and inadequate ergonomic practices. The tightness in the pectoralis minor muscle plays a key role in changing scapular alignment and causing postural issues. While techniques like Muscle Energy Technique (MET) and Instrument Assisted Soft Tissue Mobilization (IASTM) are often utilized in physiotherapy, there isn't much evidence on how effective they are when combined for improving forward head posture related to pectoralis minor tightness in college students.

Methodology: A single-blinded comparative pilot study was conducted among 18 college students aged 18–30 years with pectoralis minor tightness. Participants were randomly divided into two groups: the experimental group received combined Instrument Assisted Soft Tissue Mobilization (IASTM) and Muscle Energy Technique (MET), while the control group received conventional therapy. Interventions were given three times per week for two weeks. Outcome measures included pectoralis minor length, rounded shoulder posture, craniovertebral angle, and Numerical Pain Rating Scale, assessed before and after the intervention.

Results: The results showed that both groups demonstrated improvement in all outcome measures; however, the experimental group receiving combined IASTM and MET showed greater improvement in pectoralis minor length, craniovertebral angle, rounded shoulder posture, and pain reduction compared to the conventional therapy group. The findings suggest that the combined intervention is more effective in improving forward head posture associated with pectoralis minor tightness in college students.

Conclusion: In conclusion, utilizing both Instrument Assisted Soft Tissue Mobilization (IASTM) and Muscle Energy Technique (MET) is more beneficial than traditional therapy for enhancing forward head posture, alleviating tightness in the pectoralis minor, and reducing pain in college students. Thus, this integrated method could serve as an effective treatment for postural issues in college students.

Keywords: Forward Head Posture, Pectoralis Minor Tightness, Muscle Energy Technique, Instrument Assisted Soft Tissue Mobilization, Rounded Shoulder Posture, Craniovertebral Angle, in College Students

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