

Importance of incorporating scapulothoracic stabilization exercises into neck physiotherapy

Manahil Shahid¹

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Sir,

Neck pain is the 2nd most common musculoskeletal condition that restricts neck movement by inflicting pain and discomfort. It is specified as a pain that starts in the dorsal cervical spine and travels anteriorly from the upper nuchal line to the scapular spine as well as sidewise from upper clavicular border up to the suprasternal notch. The International Association for the Study of Pain has recommended a categorization for neck pain as acute, sub-acute and chronic based on its duration. As per the worldwide burden of disease rankings, neck pain came in at number 21 and was placed 4th among 291 conditions in terms of impairment.(1) At nation level, China, Norway and Iran have the highest rates whereas Canada, Bhutan and Pakistan were reported having lowest rates.(2)

Physical therapists treat neck discomfort more frequently than any other condition. In patients suffering from neck pain, only a small number of them seek treatment, yet it is observed that in half of these people, neck pain persists to varied degrees. Eventually, it becomes chronic neck pain which causes problems in their day to day activities of daily living.(3) There should be emphasis on the importance of focusing on the connection between neck and scapular region as they are closely related to one another, and a problem in one of these two areas can result in a problem in the other.

Subjects with persistent neck discomfort may have altered scapular kinematics, which may significantly contribute to the maintenance or aggravation of these patients' symptoms. There may be a shift in the relation between length and tension of the muscles that link the cranium, vertebrae C1-C7, scapula, and thorax, leading

to change in kinematics and persistent neck discomfort. Scapulothoracic muscles provide mobility as well as primary support to the cervical spine. Modifications in the position of scapula and thoracic, for example, acromion that is further protracted, diminished clavicular retraction, upward scapular rotation and decreased cranial angle is perhaps the cause of strain in the neck in individuals with persistent neck discomfort. Chronic neck pain individuals have changed systems of motor control, delayed activation of serratus anterior and reduced strength of middle trapezius. In such patients, there is a bilateral decreased length of pectoralis minor and declined power of rhomboids, middle trapezius as well as lower trapezius. Therefore, the role of scapulothoracic stabilization exercises should be emphasized in chronic neck pain patients. Additionally, current research indicates that workouts that target both the neck and the scapulothoracic area may be more effective in treating people with chronic mechanical neck discomfort.(4)

Javdaneh N. et al studied a comparison of the effects of neck exercise training with and without scapular stabilization training and they found that increasing the amount of scapular exercises in addition to neck exercises significantly increased the effectiveness in reducing pain, intensity, forward head angle, scapular downward rotation index and increased cervical range of motion.(5) Unfortunately, not all physiotherapists are incorporating scapulothoracic stabilization exercises for the management of neck pain because they underestimate the significance of connection between neck and scapular region. If they prefer addition of scapulothoracic stabilization exercises, their patient's will neither face recurrent neck pain nor will it become chronic.

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Affiliations: ¹Noor Clinic, Rawalpindi, Pakistan.

Correspondence: Manahil Shahid

Email: awanmanahil146@gmail.com

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