



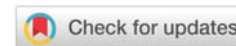
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Keywords: Upper crossed syndrome; Janda's approach; Forward head; Neck pain

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Systematic Review

Effectiveness of Janda's Approach for Upper Crossed Syndrome: A Systematic Review

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Abstract

Upper Crossed Syndrome (UCS) is a neuromotor condition causing postural imbalances in the neck, shoulders, and multiplanar postural symmetries. Janda's approach, which focuses on muscular imbalance correction, motor control, and therapeutic exercises, offers a comprehensive foundation for physiotherapy interventions. The study investigates the effectiveness of Janda's method in controlling UCS, improving clinical care, physiotherapy education, and development in treating postural asymmetry, myofascial problems, and postural disorders.

Purpose: The primary objective of this study was to evaluate evidence data bases for the effects of Janda's approach on individuals with neck and upper back pain due to UCS. Secondary objectives included assessing its impact on muscle imbalance, posture correction, range of motion, and flexibility improvement.

Methods: The study data-bases were searched from PubMed, Google Scholar, and Research Gate using key words "Upper Crossed Syndrome", "Janda's Approach", "Forward head", "Neck pain", "In the title of the article". The randomized controlled trials and original studies were taken from 2019-2024.

Results: This approach is highly effective in reducing pain, improving range of motion and flexibility, and restoring proper movement patterns. It has been shown to be more effective compared to other approaches. Janda's approach for Upper Crossed Syndrome focuses on strengthening weak muscles and stretching tight ones to correct muscle imbalances, posture, range of motion, and flexibility may vary based on individual factors and any underlying health conditions.

Conclusion: Janda's method has significant therapeutic effects in controlling UCS by resolving muscular imbalances and improving proper postural alignment. Strengthening weak muscles while stretching tight ones results in better posture, less pain, stronger fascia, and more functional movement.

Introduction

The Upper Crossed syndrome (Cervical Crossed syndrome), a musculoskeletal disorder of the upper limit that causes forward head, lordosis and kyphosis within the cervical and thoracic spines respectively and the scapular winging [1,2]. The weak serratus anterior muscle causes rotation, abduction, and winging of the scapula, and a contraction of the levator scapula and upper trapezius causes postural instability.

In 1988, Dr. Janda identified a muscle pattern with abnormal function and postural changes, affects joints causing headaches, neck, shoulder, and upper back discomfort.

Individuals with weak cervical flexors cross with tight upper trapezius and levator scapula muscles. Weak middle and lower trapezius cross with tight pectoralis major and pectoralis minor muscles.

Janda's Approach focuses on the importance of the muscular function test over the muscle strength test. Strength of the antagonist muscle groups are referred to as muscle balance. Proper muscular balance is necessary for human motion and is produced when the length or strength of an agonist or opposite muscle deviates from the normal. Muscle imbalance-related pain also interferes with day-to-day activities [3].

According to Janda there are two muscle groups “tonic” and “phasic” based on evolutionary development. The tonic system, composed of flexors, is dominant and older, while the phasic system, composed of extensors, is more vulnerable to weakening and can cause imbalances and dysfunction in movement. Tight muscles may also impact joint surfaces, leading to degradation.

Janda identified six basic movements for patient movement, which include hip extension, hip abduction, curl-up, cervical flexion, push-up, and shoulder abduction. Compensatory patterns and firing sequences are important for diagnosis, with muscle trembling indicating weakness or fatigue.

Methodology

The study data-bases were searched from PubMed, Google Scholar, and Research Gate using key words “Upper Crossed Syndrome”, “Janda’s Approach”, “Forward head”, “Neck pain”. The randomized controlled trials and original studies were taken. The articles drawn focused on how Janda’s Approach effects the musculoskeletal conditions

Inclusion criteria

1. Original studies between 2019–2024.
2. Full text availability.
3. Studies using Janda’s approach or exercise protocol for UCS.
4. Upper crossed syndrome and forward head posture.

Exclusion criteria

1. Physical Modalities and meta analysis and systematic reviews on the same topic.
2. Not in English
3. The word prevalence was removed.
4. Any other technique like Muscle energy technique (MET), Mobilization.

1. Defining the research question
 - The research question was whether the current evidence data bases provide adequate findings for its effectiveness?

2. Establishing the scope and boundaries of review

- **Scope of the study:** Effects of Janda’s approach on individuals with neck and upper back pain due to UCS.
- **Conceptual boundaries:**

Inclusion criteria: 1. Original studies, 2. Full text availability, 3. Studies using Janda’s approach or exercise protocol for UCS, 4. Outcome measures like Neck Disability Index (NDI) and Visual Analog Scale (VAS) papers articles investigating the effect of Janda’s approach on neck pain, upper crossed syndrome and forward head posture.

Exclusion criteria: Physical Modalities and meta-analysis and systematic reviews on the same topic and non-English, the word prevalence was removed, any other technique like Muscle Energy Technique (MET)

- **Study time frame** 2019–2024
- **Keywords:** Upper Crossed Syndrome, Janda’s Approach, Forward head, Neck pain

3. Study identification, screening and selection process

Step 1: Identifying the study using key words Upper Crossed Syndrome, Janda’s Approach, Forward head, Neck pain

Main Outcomes:

4 keywords applied 3 databases Total number of studies: 868



Step 2: Paper excluded based on Systemic review, meta-analysis.

Main Outcomes:

After removing duplicates, free text not available, non RCT s.

Total number of studies: 17



Step 3: Screening Excluded based on Full text, Non-English, Other techniques like MET, Mobilization.

Main Outcomes:

Screening of inclusion and exclusion, excluding full text with reasons like language, IASTM, MET and other crosses.

Final study sample: 4

4. Analysis and synthesis (Figure 1).

Yaghoubitajani, et al. [4-16] did a randomized control trial to on 36 participants to see the Corrective exercises administered online vs. at the workplace for pain and function in the office workers with upper crossed syndrome. They concluded that an 8-week corrective exercise program led to significant improvements in outcomes. Participants in the online-supervised group showed marked progress, suggesting that a supervised intervention may be more effective than an unsupervised approach.

Sanjana, et al. [2] conducted a Randomized control trial with 52 medical students with a purpose to determine the effect of Janda’s Approach in cervical crossed syndrome. The findings demonstrated that stretching and strengthening exercises (Janda’s technique) together with ergonomic guidance, along with ten minutes of warm-up exercises before treatment and cool-down exercises after treatment, were beneficial in reducing upper cross syndrome.

Seidi, et al. [6] did a randomized control trial on 24 individuals to Comprehensive corrective exercise program

improves alignment, muscle activation and movement pattern of men with upper crossed syndrome. They concluded that the effects of the CCEP compared with a control condition on alignment, muscle activation patterns of the main scapular stabilizers, and related movement patterns among young men with the UCS.

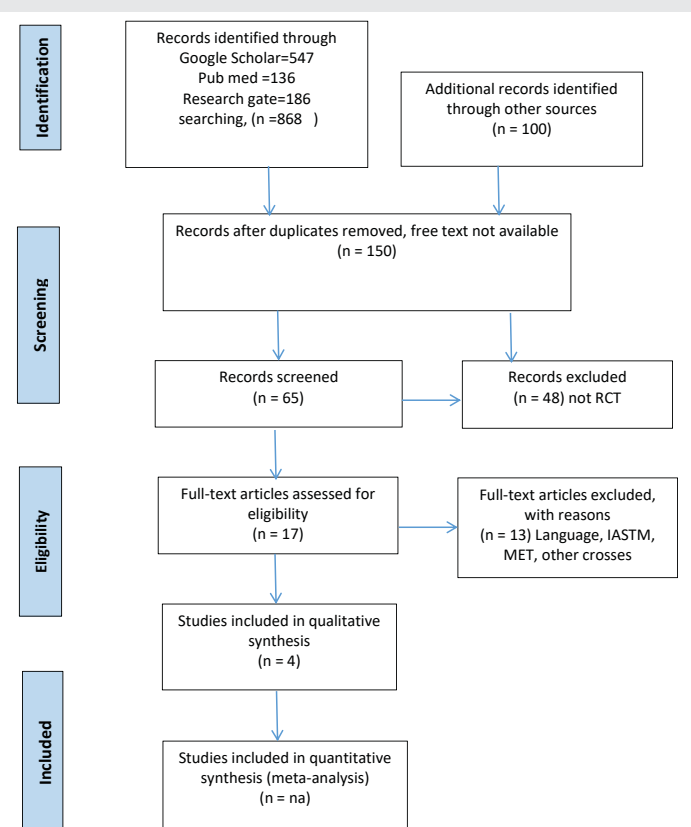


Figure 1: PRISMA flow chart.

Ji-Eun Kim, et al. [3]. conducted a Randomized control trial on 11 mid -aged women -reported muscular skeletal symptom by their own to see the impact of stretching based on Janda to improve the range, strength of the muscles, and decrease pain and concluded that The Janda's approach suggests that a stretching program is more effective than a static stretching program in treating individuals having misalignment of posture.

Result

This method is highly effective for pain relief, increasing range of motion and flexibility, and restoring correct movement patterns. Initially, there were 868 studies discovered. After excluding duplicates, free full text not available there were 65 studies left. Studies those containing the phrase "prevalence", systemic review and meta-analysis were also excluded, reducing the total studies to 17 [17-19]. After removing research employing non-English and procedures such as MET, mobilization, and IASTM, finally 4 met the selection criteria. It has been showed to be more effective than other methods. Janda's Upper Crossed Syndrome treatment focuses on strengthening weak muscles while stretching tight ones. Individual characteristics and underlying health issues may influence the degree of improvement in posture, range of motion, and flexibility (Table 1).

Discussion

Janda's approach for managing Upper Crossed Syndrome (UCS) has demonstrated considerable therapeutic effects, specifically in terms of resolving muscular imbalances and establishing proper posture alignment. The procedure involves strengthening weak muscles and stretching tight or hyperactive ones to restore musculoskeletal balance. This therapy improves posture, lowers pressure on the cervical

Author	Title	Sample size	Outcome measures	Results
Sanjana, et al. [2]	Effectiveness of Janda's Approach in Upper Cross syndrome in Medical Students	52	<ul style="list-style-type: none"> Neck disability index questionnaire Cranio-vertebral angle Numerical pain rating scale 	The result showed that warm-up exercises prior to treatment and cool down exercises after treatment for 10 minutes each, with stretching and strengthening exercises (janda's approach) and ergonomic advice was effective in upper cross syndrome in medical students.
Ji-Eun Kim, et al. [3]	The effect of a Jandabased stretching program range of motion, muscular strength, and pain in middle-aged women with selfreported muscular skeletal symptoms	36	<ul style="list-style-type: none"> Neck and shoulder ROM muscle strength Numerical Pain rating scale (NPRS) 	A stretching program based on the Janda approach would be more effective on self-reported muscular skeletal symptoms caused by posture misalignment than a static stretching program.
	Corrective exercises administered online vs at the workplace for pain and function in the office workers with upper crossed syndrome: randomized controlled trial	11	<ul style="list-style-type: none"> VAS outcome evaluation questionnaire (OEq) photogrammetry work-ability index EMG 	An 8-week corrective exercise program led to significant improvements in outcomes. Participants in the online-supervised group showed marked progress, suggesting that a supervised intervention may be more effective than an unsupervised approach.
Seidi, et al. [6]	Comprehensive corrective exercise program improves alignment, muscle activation and movement pattern of men with upper crossed syndrome: randomized controlled trial	24	<ul style="list-style-type: none"> Electromyography measurement Forward head and shoulder angles Thoracic kyphosis angle. 	The effects of the CCEP compared with a control condition on alignment, muscle activation patterns of the main scapular stabilizers, and related movement patterns among young men with the UCS.

and thoracic spines, and helps with pain reduction, flexibility, and range of motion. A systematic evaluation of 868 studies revealed that Janda's strategy may be more successful than other approaches for managing UCS. Individual variability, as well as environmental and lifestyle factors, must be taken into account while evaluating its effectiveness. More research is needed to investigate its long-term efficacy in varied groups and to combine Janda's technique with other physiotherapeutic therapies. In conclusion, Janda's approach is a good technique is a useful approach for correcting muscular imbalances, reducing pain, and improving functional movement patterns in individuals with UCS.

Conclusion

Janda's technique provides significant therapeutic benefits in the management of Upper Crossed Syndrome (UCS) by correcting muscular imbalances and promoting proper postural alignment. This method emphasizes on strengthening weak muscles, such as the deep neck flexors and lower trapezius, while also lengthening tight or overactive muscles, such as the upper trapezius, pectorals, and levator scapulae. Janda's approach alleviates postural dysfunction by restoring muscular balance, hence lowering tension on the cervical and thoracic spine. This adjustment improves posture, reduces musculoskeletal discomfort, and enhances fascial integrity, all of which contribute to more efficient and pain-free movement patterns. However, its efficiency varies based on circumstances such as the presence of localized trigger points, tender areas, and a person's overall physical health.

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