

# Correlation between Moderate - Severe Allergic Rhinitis and Sleep



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## Background

Allergic rhinitis is defined as a common inflammatory disorder generally caused by an immunoglobulin (Ig) E-mediated response to a variety of environmental allergen, including cockroach frass, animal dander, pollens, dust mites, and molds. The typical symptoms include nasal itching, congestion, rhinorrhea, and sneezing. AR has been shown to significantly affect sleep quality, memory, academic and work performance, as well as overall quality of life. Sleep is a major contributor to impaired daily functioning in AR patients.

## Objectives

To examine the correlation between moderate-severe allergic rhinitis and sleep.

## Materials and Methods

This study is a correlation analytic approach with a cross-sectional design and was conducted at the ORL-HNS Clinic, Kabupaten Bekasi General Hospital, during the period January–June 2025. There were 24 subjects (18 females and 6 males) aged 22–58 years (mean 38.8 years). Moderate-severe allergic rhinitis was determined based on anamnesis and physical examination. The study instruments used were the Visual Analog Scale (VAS) and the Rhinoconjunctivitis Quality of Life Questionnaire (RQLQ).

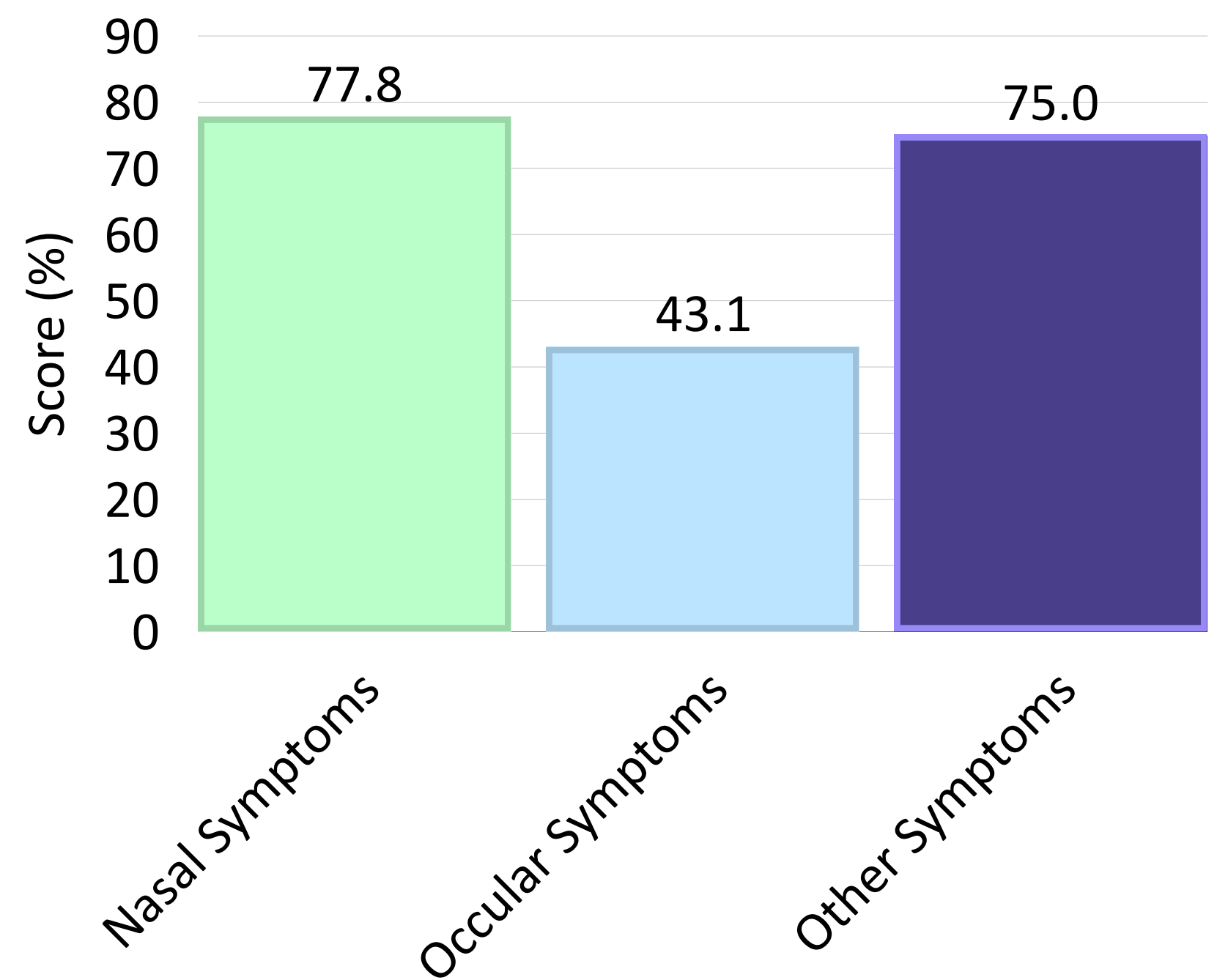
## Results

Based on the VAS, sleep (75%) and nasal symptoms (77.8%) were the most severe, while the RQLQ showed that sleep (72.9%) had the greatest impact on quality of life. Moderate-severe allergic rhinitis was significantly correlated with poor sleep ( $r = 0.633$ ,  $p = 0.001$ ), and all VAS aspects showed a positive correlation with quality of life ( $r = 0.561$ ,  $p = 0.004$ ).

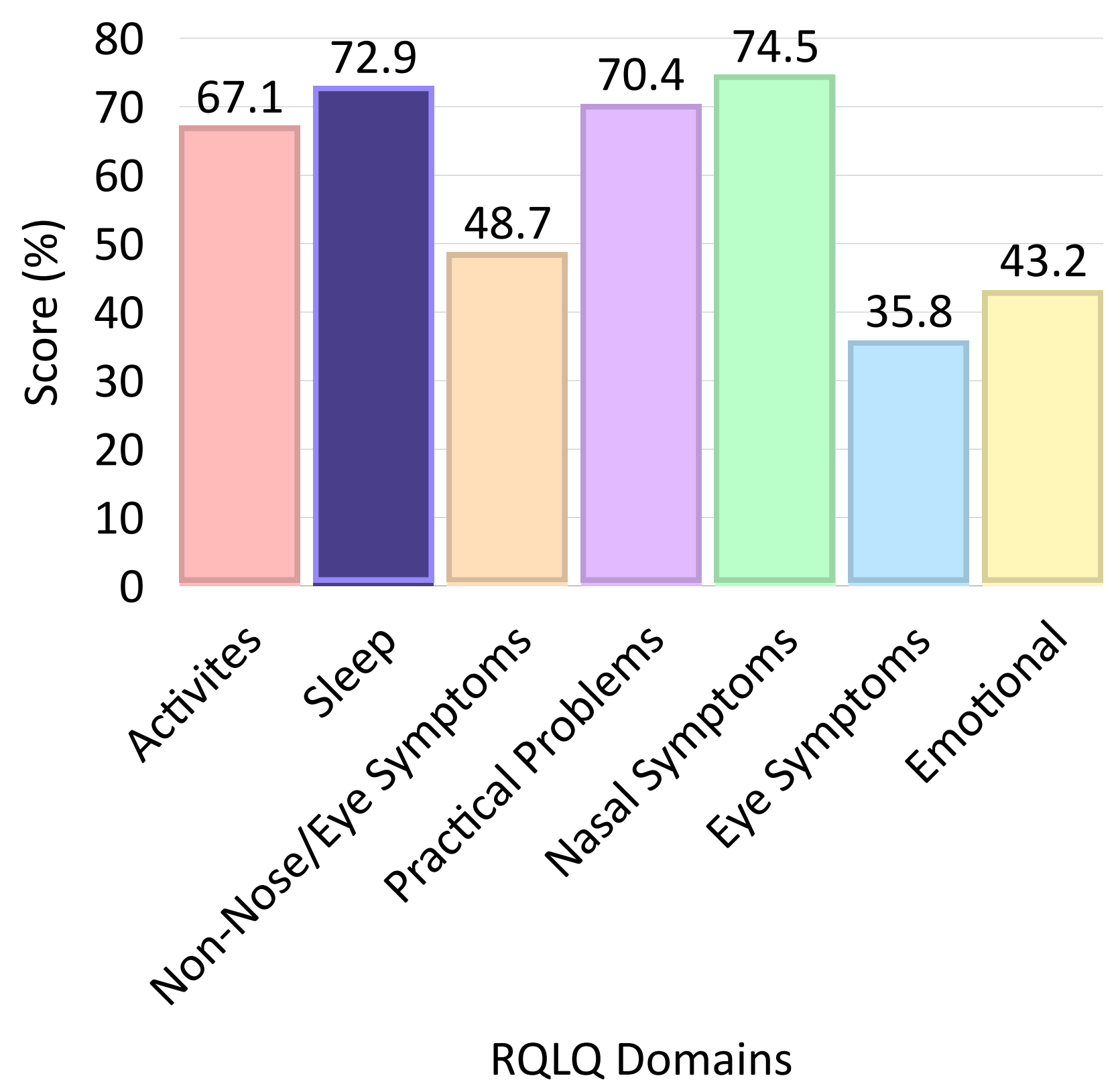
## Conclusion

Moderate-severe allergic rhinitis was significantly correlated with poor sleep quality and reduced quality of life. Sleep was the most affected domain and played a central role in daily functioning of patients with allergic rhinitis.

## Severity of Allergic Rhinitis Symptoms



## Impact of Allergic Rhinitis on Quality of Life



## Correlation between of Allergic Rhinitis Moderate Severe and Sleep

