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The Effect of Diaphragmatic Breathing among Individuals with Motion Sickness: A Narrative Review

Kanupriya, Department of Physiotherapy, Maharishi Markandeshwar Institution of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.
Akanksha Saxena, Assistant Professor, Department of Physiotherapy, Maharishi Markandeshwar Institution of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Akanksha Saxena,

Assistant Professor, Department of Physiotherapy, Maharishi Markandeshwar Institution of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.

E-mail: akankshasaxena623@gmail.com

ABSTRACT

Motion sickness, caused by sensory conflicts involving movement, balance, and vision, results in symptoms like nausea, fatigue, and light-headedness. Diaphragmatic Breathing (DB), a non-pharmaceutical method, helps manage these symptoms by enhancing Parasympathetic Nervous System (PNS) tone, promoting relaxation, and lowering respiratory rates. DB offers a simple, natural strategy for managing motion sickness and improving well-being. The aim of this narrative review was to find out the effect of DB in individuals with motion sickness. Experimental studies utilising DB as an intervention in individuals with motion sickness was included and prevalence/incidence, review articles were excluded. Total 61927 full-text published articles were identified from PubMed and Scopus from 2012-2024. After duplicate deletion, 54091 articles were left for screening and finally, 7,836 full text articles related to the research topic were further analysed at full-text level. Out of which only 2 articles were selected and included in the review for analysis. Both the studies gave DB and compared with control group. Participants trained in DB achieved slower breathing rates,nearing the ideal range of 3–7 breaths per minute, which was associated with increased heartrate variability, and reduction in motion sickness symptoms. These findings indicate greater PNS activation and thereby alleviating symptoms like nausea and discomfort in motion sickness-inducing situations. These results of this review suggests DB as a practical and side effect-free alternative to medication for managing motion sickness.

Keywords: Pulmonary ventilation, Seasickness, Travel sickness, Vestibular system.