
THREATS TO THE PHYSICAL AND MENTAL INTEGRITY OF DANCERS

An investigation into dancers' self-reported pain and injuries and their potential relation with generalised joint hypermobility (GJH) and generalised anxiety disorder (GAD)

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Abstract

Objective: The purpose of the present MAS thesis was to determine potential relations between musculoskeletal pain (MSP) and generalised joint hypermobility (GJH), between MSP and generalised anxiety disorder (GAD) and between GJH and GAD in professional dancers. In addition, differences in GJH and GAD between currently non-injured and currently injured dancers, between dancers affected by mild pain and those affected by intense pain, and, finally, between dancers who had not been previously severely injured and those who had been previously severely injured were analysed. The aim was to determine whether participants who reported a higher level of MSP and, thus, a current injury or had been previously severely injured, had been assessed with GJH or had more severe generalised anxiety symptoms than dancers who were not currently injured, those who perceived mild MSP or had not been previously severely injured.

Methods: Prior to the season 2022/2023, 147 professional dancers (80 females and 67 males) of six German opera houses and/or state theatres agreed to participate in the “Dancer’s Health” project by the MSH Medical School Hamburg. The participants completed a pseudonymous online comprehensive baseline questionnaire. It included, among others, questions about previous injuries, a self-assessment of the severity of MSP and the Generalised Anxiety Disorder Questionnaire (GAD-7). Furthermore, the dancers’ Beighton Score for GJH was assessed by dance medicine-trained physicians during a dance medical check-up.

Results: No significant relation was found between MSP and GJH ($p = .45$ in females; $p = .58$ in males) but a moderate positive one between MSP and GAD both in female ($p < .001$) and male ($p = .005$) dancers. Hence, the higher the MSP value, the higher the GAD-7 sum score. Furthermore, no significant relation could be determined between GJH and GAD ($p = .68$ in females; $p = .29$ in males). No differences in the Beighton score for GJH between any of the groups was observed. However, a significant difference in the GAD-7 sum score was identified between currently non-injured and currently injured dancers ($p < .001$) and between the mild-pain and the intense-pain groups ($p < .001$). No differences in the GAD-7 sum score were detected between previously non-severely injured and previously severely injured dancers ($p = .45$).

Conclusion: Further research on generalised joint hypermobility in professional dancers and its potential relation to pain, injuries, and generalised anxiety is needed, as the present analysis could not support previous research conducted exclusively on dance students. Moreover, a more specific definition of injury may help to better identify injured dancers who might not perceive any musculoskeletal pain but are still limited in their performance, providing more accurate results. As a significant relation was found between musculoskeletal pain and generalised anxiety disorder in professional dancers, regular screenings could be a valuable tool to recognise injuries, risky behaviours, and mental conditions, such as generalised anxiety. Therefore, implementing appropriate prevention programmes and mental skills training for dancers is recommended to facilitate a long and healthy career.