

Prevalence of musculoskeletal pain and associated factors among professional orchestra musicians in Norway

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Abstract

Background: Orchestra musicians have a high risk of experiencing musculoskeletal problems. These problems may lead to sleep and psychological disturbance.

Objectives: This study investigated the occurrence of musculoskeletal pain (MSP) among orchestra musicians and the coherence between pain and predictors such as gender, age and instrument. Further, the impact of pain on sleep and mental health was analysed to assess pain as a predictor threatening musicians' wellbeing.

Methods: Some 358 musicians in eight different professional orchestras in Norway completed a questionnaire. Questions about pain experienced within the last 30 days were based on a national survey. Standardised screening tools like the Hopkins Symptom Checklist-25 (HSCL-25) and Bergen Insomnia Scale (BIS) were used to assess psychological distress and sleeping problems. Kruskal-Wallis tests were used to analyse the differences in the pain-related variables: experienced pain severity (EPS), number of pain areas, and work being perceived as the source of pain based on age. Mann-Whitney U tests were conducted to evaluate the statistical significance between gender and the pain-related variables. Spearman's rank correlations were used to examine the relationship between EPS and BIS, HSCL-25 and pain area. Additionally, simple linear regression models were employed to determine whether EPS can predict higher scores on the HSCL-25 and BIS scales.

Results: The prevalence of MSP experienced in the last 30 days among orchestra musicians in Norway was 85%. Musicians experienced frequent pain regardless of their gender, age or instrument group. Neck, shoulders and upper back represented the most reported pain areas. Further, it was observed that increased EPS was correlated with an increase in the number of pain areas and in work being perceived as the source of pain. EPS significantly predicted sleep- and psychological distress.

Conclusions: Orchestra musicians have a high risk of encountering MSP. Furthermore, their psychological distress and sleeping problems seem to be related to experienced MSP. To deliver optimal health, these problems should be handled simultaneously.