

Demand-control at work and musculo-skeletal pain in Norwegian philharmonic musicians.

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In a study with data collection in 2019-20 we found that musicians reported more musculo-skeletal pain than the occupationally active general population of Norway (1). We have now analyzed the data to see to what extent factors like demand, control, social support, and reward are associated with the reported complaints.

Demand was defined as having to do many tasks at a high pace, control as being able to decide on the amount of work and how it is performed, while social support was the get help and support from leaders and work mates when needed, and reward as perceived respect and payment as deserved.

In a digital questionnaire it was asked for different degrees pain in the lower back, upper back, neck and shoulders, arms, elbows, and hands, and legs, hip, knees and feet during the last month.

We used logistic regression with control for age and sex to elucidate possible associations between assumed determinants and the outcomes.

The study comprised 382 musicians aged 20-69 years from eight different philharmonic orchestras in Norway. There were 171 females and 209 men. 5.5 % were under thirty years of age while 31.9 % were between 50 and 59 years.

There were 20 % of the study subjects who were defined as having high demands, 36.3 % who had low control, and 8.5 % who had the combination of both. High social support was present in 24.1 % and 39 % considered themselves to have satisfactory reward.

Results showed increased odds ratios (OR) for all assumed determinants and outcomes but with statistical significance only for a few of the associations. For the combination of high demands and low control, a little or more pain in upper back, neck and shoulders had an OR of 2.8 (95 % CI 0.94-8.32). Corresponding OR for pain in arms, elbows, and hands was 7.29 (2.47-21.54). For low social support the OR was 1.85 (1.11-3.07), and for low reward it was 2.06 (1.31-3.26). Results will be given in more detail when space and time allow.

We see some psychosocial challenges in the working environment of musicians and some associations between certain challenges and musculo-skeletal pain.

1. Hilt B, Brundtland Steder F. Arbeidsmiljø og helse blant orkesttermusikere – sammenligning med den generelle befolkningen. Norwegian Defence Research Establishment. Report 24/00225, Kjeller 2024.(In Norwegian, English summary).