

Epidemiology of sex differences in musculoskeletal pain

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Musculoskeletal pain (MP) comprises a major public health problem in Western countries mainly due to its high impact on (work) disability. Although most epidemiological studies show a higher prevalence of MP in women than in men, many issues are unclear, e.g.: Are sex differences evident for all pain locations and all severity levels of pain? Are the sex differences due to differences in risk factors for pain? Do these sex differences also result in consequences of pain i.e. (work) disability and health services utilization? These questions were studied using data from two population-based epidemiological surveys (n=3,664 and n=22,415).

Main results were: * Pain was more prevalent among women than among men, for most anatomical sites and for all severity parameters; * Sex differences in chronic MP could not be explained by differences due to age, educational level, smoking status, overweight, physical activity, and pain catastrophizing. Overweight (all pain locations) and older age (lower extremities) were associated with chronic MP in women while pain catastrophizing (upper extremities) was stronger associated with chronic MP among men. * Among women, reproductive factors related to elevated estrogen levels (e.g. pill use, use of estrogens in menopause) affected low back pain, while irregular/prolonged menstrual cycle and hysterectomy affected both low back pain and upper extremity pain. * Women reported more limitation in daily life and health service utilization due to MP that could not be explained by prevalence rates of MP, while no or adverse sex differences were found for work disability. This study suggests that sex-specific risk factor profiles for musculoskeletal pain exist which asks for the development of sex-specific prevention strategies.