

The association between socioeconomic status and patient-reported outcome at 1 year after shoulder arthroplasty for osteoarthritis or cuff tear arthropathy – a nationwide cohort study of 2,292 arthroplasties

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INTRODUCTION:

The purpose of the study was to evaluate the association between socioeconomic factors and patient-reported Western Ontario Osteoarthritis of the Shoulder (WOOS) index at 1 year after shoulder arthroplasty for osteoarthritis or cuff tear arthropathy.

METHODS: All eligible patients were identified using linked national data from the Danish Shoulder Arthroplasty Registry and Statistics Denmark between April 2012 and April 2019. Multivariable linear regression was used to identify the association between socioeconomic factors and the WOOS index at 1 year following primary shoulder replacement surgery adjusted for confounding variables. We examined socioeconomic factors including employment status, marital status, education and income.

RESULTS: A total of 2,292 patients were identified with a mean WOOS index of 76.2 (SD 24.1). The mean WOOS index was 53.9 (SD 29.0) for patients who were unemployed, 72.3 (SD 25.0) for patients with a low-level job, 79.4 (SD 20.7) for patients with a high-level job and 77.1 (SD 23.6) for patients who were retired.

Unemployed patients had a statistically significant lower WOOS index than employed and retired patients (coefficients between 13.8 and 18.6). Low education level was associated with a statistically significant, but not clinically important difference, while there was no association between WOOS index and income or marital status.

DISCUSSION AND CONCLUSION: Unemployment was associated with a significantly inferior WOOS score at 1 year after shoulder arthroplasty for osteoarthritis or cuff tear arthropathy compared to patients who were employed or retired. This finding highlights a potential inequity in patient-reported outcomes after shoulder arthroplasty.

