THE RELATIVE IMPACT OF CHRONIC CONDITIONS AND MULTIMORBIDITY ON HEALTH-RELATED QUALITY OF LIFE IN ONTARIO LONG-STAY HOME CARE CLIENTS (PUBLICATION)

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CONTEXT

Health-related quality of life (HRQL) is a multidimensional construct that quantifies outcomes of health status, functional status and the subjective experience of an individual, into a single summary measure. Understanding the associations between common chronic conditions and HRQL impairments is useful for providers and policy makers in targeting and evaluating interventions toward selected populations at risk of poor HRQL. This is particularly relevant in the home care sector, which is typically comprised of vulnerable older adults with multiple chronic conditions who are often at heightened risk of functional decline.

OBJECTIVES

The study aims to estimate the relative impact of 16 common chronic conditions on HRQL among home care clients in Ontario; estimate the impact of increasing morbidity on HRQL in this population; and explore variations in the impact of select conditions and increasing morbidity on HRQL by sex and by age group.

METHODS

This is a cross-sectional study using linked population-based health administrative data housed at the Institute for Clinical Evaluative Sciences. Study participants included all adult (aged 18-105) home care clients assessed with the Resident Assessment Instrument for Home Care (RAI-HC) between January and June 2009 and diagnosed with 1 or more of 16 high impact chronic conditions. Observed HRQL was evaluated with the Minimum Data Set-Health Status Index (MDS-HSI), a preference-based measure derived from items captured in the RAI-HC assessments. MDS-HSI values range from 1 (perfect health state) to -0.02 (health state worse than dead) and a mean difference of ≥0.03 is considered clinically meaningful. Multiple linear regression models were used to quantify differences in mean MDS-HSI scores for each select condition, and for increasing number of diagnoses (i.e., chronic disease burden), adjusting for socio-demographic, lifestyle and social support variables.

FINDINGS

The study population included 106,159 home care clients with mean age of 78 years and two-thirds were women. The mean MDS-HSI score was 0.524, and scores were lower with increasing age, in women than in men, and in clients residing in urban than in rural areas. In adjusted analyses, the largest statistically significant and clinically important impairments in MDS-HSI were found for clients with a diagnosis of stroke (-0.056), osteoarthritis (-0.036), rheumatoid arthritis (-0.033) and congestive heart failure (-0.030). Important differences were found between men and women. Most notably, the negative impact of dementia on HRQL was larger and exceeded the threshold for clinical significance in men (-0.043). On average, clients in the study population had 4.1 chronic conditions. There was a strong inverse association between number of conditions and MDS-HSI scores, which was consistently observed in all age-sex strata.

CONCLUSIONS

Among home care clients in Ontario, Canada, the largest clinically meaningful negative impacts on HRQL were associated with stroke, followed by osteoarthritis, rheumatoid arthritis and CHF after adjusting for socio-demographics, lifestyle, social support and other conditions. Regardless of age and sex, there were significant and meaningful reductions in HRQL scores with an increasing number of coexisting chronic conditions. Estimates from this study serve as baseline preference-based HRQL values for home care clients with different chronic conditions and may be used by healthcare providers and policy makers in targeting interventions to populations with chronic diagnoses known to have the largest negative impact on HRQL.

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