

Trends of polypharmacy among older adults with schizophrenia in Quebec, Canada between 2000 and 2017

Carlotta Lunghi

C Lunghi^{1,2,3}, *L Rochette*⁴, *A Ouali*⁵, *C Sirois*^{6,7}

¹Department of Health Sciences, Université du Québec à Rimouski, Lévis, Canada

²Population Health and Optimal best practices, CHU de Québec, Québec, Canada

³CISSS Chaudière-Appalaches Research Centre, Lévis, Canada

⁴National Institute of Public Health of Quebec, Québec, Canada

⁵Faculty of Medicine, Université Laval, Québec, Canada

⁶Faculty of Pharmacy, Université Laval, Québec, Canada

⁷Quebec Research Centre on Aging, Québec, Canada

Contact: carlotta.lunghi@crchudequebec.ulaval.ca

Background:

Schizophrenia is a severe psychiatric disorder associated with an increased risk of type 2 diabetes, dyslipidemia and obesity. As adults with schizophrenia age, they become at high risk for multimorbidity and polypharmacy. However, little is known about the trends in total medications use within this population. The objective of this study was to draw a portrait of polypharmacy among Quebec older adults with schizophrenia from 2000 to 2017.

Methods:

This population-based cohort study used the data of the Quebec Integrated Chronic Disease Surveillance System of the National Institute of Public Health of Quebec to characterize recent trends and patterns of medications use, according to age and sex. We identified all Quebec residents over 65 years with an ICD-9 or ICD-10 diagnosis of schizophrenia. We calculated the total number of medications used by every individual in each year under study, and the age- and sex-standardized proportion of individuals with polypharmacy (10+ medications, 15+, and 20+). We further identified the clinical and socio-demographic factors associated with polypharmacy using Poisson regression models with robust variance estimation.

Results:

From 2000 to 2017, the prevalence of total medications used increased across all age groups, with a median of 8 medications consumed in 2000-2001, which rose to 11 in 2016-2017. The age-standardized proportion of people exposed to different degrees of polypharmacy also increased over time: 5+: 76.6% to 89.3%; 10+ drugs: 36.9% to 62.2%; 15+: 13.3% to 34.4%; 20+: 3.9% to 14.4%. In the multivariate regression, the only clinically significant factor associated with polypharmacy was the high number of diseases (e.g., 5+: RR = 1.29; 95% IC:1.44-1.53).

Conclusions:

This study shows a noticeable increase in polypharmacy exposure of older adults with schizophrenia, raising concerns about the growing risks for adverse effects and drug interactions with antipsychotic treatments.

Key messages:

- Polypharmacy has constantly grown in the last two decades.
- Further research is needed to better understand outcomes of polypharmacy among older individuals with schizophrenia.