**DEVELOPING AND TESTING A BRIEF MEASURE OF FRAILTY FOR ADULTS WITH INTELLECTUAL AND DEVELOPMENTAL DISABILITIES**

**Clarabelle Lee, Queen’s University; Hélène Ouellette-Kuntz, Queen’s University & Ongwanada; Lynn Martin, Lakehead University**

Objectives

The purpose of this research is to develop and validate a brief measure to help agencies more efficiently identify the frailty status of adults with intellectual and developmental disabilities (IDD).

Method

Client charts of 170 adults with IDD supported by Ongwanada in 2016 were reviewed to identify the presence of the 42 deficits identified in the frailty index (FI) developed by McKenzie, Ouellette-Kuntz and Martin (2015). The deficits which met criteria for inclusion developed by Schoufour et al. (2013) were retained and used to compute a frailty score. The score was calculated by dividing the number of deficits present by the sum of the number of deficits present and the number deemed absent. The resulting score was tested for its association with age (Spearman’s rank correlation coefficient), sex (Mann Whitney U Test), program (group home vs. host family) (Mann Whitney U Test) and level of IDD (Spearman’s rank correlation coefficient and Kruskal Wallis Test).

The sample consisted of adults living in a group home (n=132) or with a host family (n=38). These individuals were between the ages of 19.8 and 86.4 (mean=51.9 years) and 51.2% were men. Approximately 26.5%of the sample was identified as having an unspecified level of IDD, 32.9% as having a mild to moderate level of IDD and 40.6% as having a severe to profound level of IDD.

Results

The inclusion criteria were met by only 12 of the 42 deficits (i.e., hospital admission, dementia/Alzheimer’s disease, diabetes, arthritis, hypertension, respiratory disease, fall frequency, osteoporosis, hearing impairment, cataract, antidepressant use, and medication use)**.** Frailty scores ranged from 0 to 0.58 (mean=0.17). There was a significant moderate positive correlation between frailty scores and age (r=0.42, p<0.001) and a weak positive correlation with level of IDD (r=0.21; p=0.004). Specifically, individuals with an unspecified level of IDD had a lower frailty score (median=0.09). Individuals living in group homes had a higher score than those living with a host family (mediangroup home= 0.17; medianhost family=0.08; p<0.001). The mean frailty scores did not differ by sex (p=0.207).

Discussion/Conclusion

Before the 12-item measure can be used to assess frailty, there is a need to validate it particularly since it relies on fewer items than the recommended minimum of 30 to 40 for a reliable measure (Searle et al., 2008) and most retained deficits relate to diagnoses rather than everyday function. Future steps to validate the brief measure include: evaluating its predictive validity by determining the association between scores and hospitalization in the subsequent 12 months; and assess its convergent validity by comparing it to the 42-deficit FI score. If shown to be valid through replication and further validation work, the brief measure could provide agencies an efficient approach to determining frailty status of their clients.

Correspondence

Clarabelle Lee, Queen’s University, [13chyl1@queensu.ca](mailto:13chyl1@queensu.ca)

Hélène Ouellette-Kuntz, Dept. of Public Health Sciences, Queen’s University, [Helene.kuntz@queensu.ca](mailto:Helene.kuntz@queensu.ca)

Lynn Martin, Dept. of Health Sciences, Lakehead University, lynn.martin@lakeheadu.ca

References

McKenzie, K., Ouellette-Kuntz, H. & Martin, L. (2015). Using an accumulation of deficits approach to measure frailty in a population of home care users with intellectual and developmental disabilities: an analytical descriptive study. BMC-Geriatrics, 15, 170.

Schoufour, J.D., Mitnitski, A.B., Rockwood, K., Evenhuis, H.M., Echteld, M.A. (2013). Development of a frailty index for older people with intellectual disabilities: results from the HA-ID study. Research in Developmental Disabilities, 34(5), 1541–55.

Searle, S.D., Mitnitski, A., Gahbauer, E.A., Gill, T.M., & Rockwood, K. (2008). A standard procedure for creating a frailty index. BMC Geriatrics, 8, 24.