

Title Comparison of methods for the calculation of informal care cost in neurologic disorders

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Abstract

Objective To assess the cost of informal care with the opportunity cost (OC), the proxy good (PG), and the contingent valuation (CV) methods in the management of Parkinson disease (PD), multiple sclerosis (MS) and epilepsy.

Methods Individuals with MS, PD, or epilepsy included in the French Health and disabilities households survey (*Enquête Handicap-Santé*) were included (193 people with epilepsy, 96 with PD, and 58 with MS) and classified according three levels of dependency (non-dependent, moderate and severe). The hours of informal care were valued by the wages of a professional caregiver in the PG method, by the lost wages for the caregivers in the OC methods, and with the willingness-to-pay to be replaced one hour near their disabled relative in the CV.

Results The median (interquartile range, IQR) number of informal care hours was 13 (7-31) in PD, 18 (8-39) in MS, and 21 (7-48) in epilepsy. It increased with the level of dependency for the three disorders. The PG and OC methods produced similar costs with a mean difference (Standard deviation, SD) of € 270 (457). The cost of informal care calculated with the CV produced greater mean costs, especially with caregivers of severely dependent people with MS (€ 184,989 versus 25,840 for both OC and PG methods) and epilepsy (€ 41,646 versus 34,483 and 34,400 with OC and PG methods respectively).

Conclusions The CV, which is based on a revealed preference approach, seems to bring an additional information with regard to the PG and OC methods in the severely dependent forms of neurological disorders, especially when they may affect young populations (MS and epilepsy). However, still of numerous methodological questions remain.