# Supplementary Material

**Severe Agitation in Dementia: An Explorative Secondary Data Analysis on the Prevalence and Associated Factors in Nursing Home Residents**

**Supplementary Table 1. Characteristics of the study sample versus non-participants (values are reported as relative frequencies (prevalence) and the means (severity)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | n | participants | n | non-participants | pb |
| *Sociodemographics* |  |  |  |  |  |
| Age (y) | 1,967 | 83.4 (±8.0) | 903 | 81.6 (±10.2) | < 0.001 |
| Male sex | 1,967 | 450 (22.9) | 903 | 245 (27.1) | 0.020 |
| Resident has a court order to stay in NH | 1,957 | 218 (11.1) | 901 | 27 (3.0) | < 0.001 |
| Length of stay (months) | 1,967 | 28.4 (±28.4) | 897 | 36.0 (±50.8) | 0.500 |
| Frequency of visits (score 0 - 16) (mean) | 1,967 | 4.1 (±2.4) | 903 | 4.3 (±2.5) | 0.004 |
| *Dementia & care dependency* |  |  |  |  |  |
| Dementia Screening Scale (0 - 14)a | 1,967 | 9.5 (±3.4) | 889 | 2.7 (±3.1) | < 0.001 |
| Physical Self-Maintenance Score (6 - 30)a | 1,956 | 20.0 (±4.9) | 899 | 15.1 (±5.4) | < 0.001 |
| *Nursing home environment and model of care* |  |  |  |  |  |
| Lives in a Dementia Care Unit | 1,950 | 895 (45.9) | 903 | 97 (10.7) | < 0.001 |
| Lives in a closed unit | 289 (14.8) | 53 (5.9) | < 0.001 |
| Size of the care unit (places) | 26.3 (±9.6) | 27.2 (±9.4) | 0.020 |
| *Neuropsychiatric symptoms* |  | % (mean severity) |  | % (mean severity) |  |
| Agitation/aggression | 1,967 | 31.1 (0.5) | 900 | 15.1 (0.2) | < 0.001 |
| Disinhibition | 19.3 (0.3) | 900 | 13.4 (0.2) | < 0.001 |
| Irritability/lability | 32.8 (0.5) | 901 | 28.8 (0.4) | 0.030 |
| Delusions | 17.8 (0.3) | 901 | 11.7 (0.2) | < 0.001 |
| Hallucinations | 15.1 (0.2) | 901 | 6.9 (0.1) | < 0.001 |
| Depression/dysphoria | 27.7 (0.4) | 901 | 27.6 (0.4) | < 0.001 |
| Anxiety | 20.0 (0.3) | 901 | 13.4 (0.2) | < 0.001 |
| Motor disturbance | 33.1 (0.6) | 901 | 8.8 (0.1) | < 0.001 |
| Nighttime behaviors | 25.3 (0.4) | 901 | 12.1 (0.2) | < 0.001 |
| Elation/euphoria | 7.5 (0.1) | 900 | 7.8 (0.1) | 0.800 |
| Apathy/indifference | 26.8 (0.4) | 901 | 19.0 (0.3) | < 0.001 |
| Appetite/eating | 29.2 (0.4) | 898 | 20.9 (0.3) | < 0.001 |

a higher scores indicate greater impairment

b generated by χ2 test or an independent t-test

**Supplementary Table 2.** Scale and item results

|  |  |  |
| --- | --- | --- |
| Subscales/items | n = 1,967 | |
|  | H | α |
| Agitation | 0.46 | 0.69 |
| Disinhibition | 0.49 |  |
| Irritability/lability | 0.48 |  |
| Agitation/aggression | 0.42 |  |
| Psychosis | 0.43 | 0.58 |
| delusions | 0.43 |  |
| hallucinations | 0.43 |  |
| Mood | 0.37 | 0.51 |
| Depression/dysphoria | 0.37 |  |
| Anxiety | 0.37 |  |
| Restless behavior | 0.32 | 0.45 |
| Motor disturbance | 0.32 |  |
| Nighttime behaviors | 0.32 |  |

**Loevinger’s H coefficient of the scalability of the scale (> 0.5 = strong, > 0.4 = medium, < 0.4 = weak)  
Cronbach's alpha (> 0.8 = good, > 0.7 = acceptable, > 0.6 = questionable)**

**Supplementary Table 3. Results of the regression model**

|  |  |  |  |
| --- | --- | --- | --- |
| Characteristics | Odds Ratio  severe agitation versus no and mild agitation | CI (95%) | p |
| Age | 0.9 | 0.9 – 1.0 | 0.916 |
| Male sex | **1.6** | **1.2 – 2.1** | **< 0.001** |
| Length of stay (months) | 1.0 | 0.9 – 1.0 | 0.954 |
| Resident has a court order to stay in NH | 1.0 | 0.7 – 1.4 | 0.838 |
| Dementia Screening Scale | 0.9 | 0.9 – 1.0 | 0.087 |
| Physical Self-Maintenance Score | 0.9 | 0.9 – 1.0 | 0.755 |
| Lives in a Dementia Care Unit | 1.3 | 1.0 – 1.6 | 0.008 |
| Lives in a closed unit | 1.1 | 0.8 – 1.5 | 0.521 |
| Size of the care unit (places) | 0.9 | 0.9 – 1.0 | 0.155 |
| Delusions | **3.4** | **2.5 – 4.7** | **< 0.001** |
| Hallucinations | 1.2 | 0.8 – 1.6 | 0.246 |
| Depression/ dysphoria | **1.6** | **1.3 – 2.1** | **< 0.001** |
| Anxiety | **1.5** | **1.1 – 2.0** | **0.002** |
| Elation/euphoria | **3.4** | **2.1 – 5.5** | **< 0.001** |
| Apathy/indifference | **1.4** | **1.1 – 1.8** | **0.001** |
| Motor disturbance | **1.9** | **1.5 – 2.4** | **< 0.001** |
| Nighttime behaviors | **1.8** | **1.4 – 2.3** | **< 0.001** |
| Appetite/eating | 1.0 | 0.8 – 1.3 | 0.524 |

**Participants included in the analysis: n=1,931 Model fit: Cox & Snell R2 = 0.182, Nagelkerkes R2 = 0.243**