**Supplementary Figure 1**. Met, unmet, and no needs assessed by caregivers using Camberwell Assessment of Need for the Elderly in Singapore (N=266)

**Supplementary Table 1**. Model fit summary table

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Number of Classes | Information Criteria (IC) | | | | Likelihood test | | Entropy | SC% |
| BIC | aBIC | CIAC | AWE | BLRT | VLMR |
| 1 | 3,652 | 3,614 | 3,664 | 3,755 | – | – | – | – |
| 2 | 3,121 | 3,042 | 3,146 | 3,336 | <.001 | <.001 | 0.991 | 36% |
| 3 | 2,994 | 2,873 | 3,032 | **3,320** | <.001 | <.001 | 0.992 | 29% |
| 4 | 2,887 | 2,725 | 2,938 | 3,324 | <.001 | <.001 | 0.998 | 16% |
| 5 | **2,858** | 2,655 | **2,922** | 3,408 | <.001 | <.001 | 0.992 | 14% |
| 6 | 2,858 | **2,614** | 2,935 | 3,519 | <.001 | <.001 | 0.992 | 10% |

Note. N=266; BIC: Bayesian information criterion; aBIC: Sample size adjusted BIC; CAIC: Consistent Akaike information criterion; AWE: Approximate weight of evidence criterion; BLRT: Bootstrapped likelihood ratio test p-value; VLMR: Vuong-Lo-Mendell-Rubin adjusted likelihood ratio test p-value; SC: Smallest Class

**Supplementary Table 2**. Item response probabilities of four need profiles (N=266)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Total | No need | Met social & memory needs | No social & met memory needs | Unmet social & memory needs |
| 100% | (38.0%) | (28.5%) | (17.4%) | (16.2%) |
| **Daytime activities** |  |  |  |  |  |
| No need | 55.3% | 100% | 0% | 100% | 0% |
| Met need | 28.4% | 0% | 100% | 0% | 0% |
| Unmet need | 16.3% | 0% | 0% | 0% | 100% |
| **Company** |  |  |  |  |  |
| No need | 61.5% | 95.0% | 39.6% | 60.7% | 21.4% |
| Met need | 23.0% | 3.0% | 53.8% | 22.0% | 16.8% |
| Unmet need | 15.5% | 2.0% | 6.6% | 17.3% | 61.8% |
| **Memory** |  |  |  |  |  |
| No need | 46.2% | 100% | 19.8% | 0% | 16.3% |
| Met need | 42.9% | 0% | 72.3% | 82.7% | 48.9% |
| Unmet need | 10.9% | 0% | 7.9% | 17.3% | 34.8% |
| **Eyesight/hearing/communication** |  |  |  |  |  |
| No need | 52.5% | 72.0% | 46.2% | 41.2% | 30.2% |
| Met need | 37.4% | 19.0% | 47.2% | 50.2% | 48.9% |
| Unmet need | 10.2% | 9.0% | 6.6% | 8.7% | 20.9% |

**Supplementary Table 3.** Multinomial logistic regression predicting care need profiles

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Model 1  Reference: No need profile | | | Model 2  Reference: No need profile | | |
|  | Met social and memory needs | No social and met memory needs | Unmet social and memory needs | Met social and memory needs | No social and met memory needs | Unmet social and memory needs |
| **Caregiver characteristics** |  |  |  |  |  |  |
| Age | -0.02 | -0.04\* | 0.02 | -0.03 | -0.05 | 0.01 |
| Female | 0.17 | -0.16 | 0.57 | 0.33 | -0.03 | 0.53 |
| Ethnic minority | -0.01 | -0.11 | 0.54 | -0.52 | -0.44 | 0.07 |
| Married | 1.07\* | 0.61 | 0.58 | 1.22\*\* | 0.63 | 0.65 |
| Education | -0.00 | -0.26 | 0.24 | 0.11 | -0.20 | 0.34 |
| Working | -0.07 | -0.31 | 0.04 | 0.24 | -0.18 | 0.22 |
| Financial adequacy | -0.00 | -0.06 | -0.10 | -0.02 | -0.09 | -0.05 |
| **PCI characteristics** |  |  |  |  |  |  |
| Cognitive function (MMSE) |  |  |  | -0.07\* | -0.04 | -0.08\* |
| Functional difficulties (IADL) |  |  |  | 0.34\*\*\* | 0.15 | 0.20\* |
| Age |  |  |  | -0.03 | -0.03 | -0.04 |
| Female |  |  |  | 0.57 | 0.63 | -0.17 |
| **Caregiving contexts** |  |  |  |  |  |  |
| Spouse caregiver | -1.37\* | -0.34 | -0.60 | -0.76 | -0.02 | -0.50 |
| Long term caregiver | 1.33\* | 1.12 | 1.18 | 0.40 | 0.56 | 0.32 |
| Foreign domestic worker | 1.14\*\* | 0.21 | 1.03\* | 0.43 | -0.14 | 0.62 |

Note. PCI: Persons with cognitive impairment; MMSE: Mini-mental state examination; IADL: Instrumental activities of daily living; \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001