Appendix Table 2 - Multivariable analyses of loneliness factors (after multiple imputation)

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| --- | --- | --- | --- | --- |
|  | **interRAI Assessment** | **Covariate** **adjusted** **p value** | **Resident Survey**  | **Covariable** **adjusted** **p value** |
| **OR (95% CI), p** | **OR (95% CI), p** |
| Age at interview (years) | 0.99 (0.95, 1.03), 0.64 | 0.64 | 1.00 (0.96, 1.03), 0.90 | 0.90 |
| Gender |  | 0.32 |  | 0.59 |
| Men | 1.00 |  | 1.00 |  |
| Women | 0.75 (0.42, 1.31), 0.32 |  | 0.87 (0.52, 1.45), 0.59 |  |
| Ethnicity |  | 0.65 |  | 0.19 |
| NZ European | 1.00 |  | 1.00 |  |
| Other European | 1.02 (0.61, 1.70), 0.94 |  | 1.23 (0.77, 1.96), 0.38 |  |
| Non-European | 0.58 (0.17, 1.90), 0.36 |  | 0.45 (0.16, 1.29), 0.14 |  |
| Marital status |  | <0.001 |  | <0.001 |
| Married/Civil Union/Defacto | 1.00 |  | 1.00 |  |
| Widowed | 8.43 (4.22, 16.80), <0.001 |  | 8.89 (4.89, 16.1), <0.001 |  |
| Separated/Divorced/Never Married/Other | 4.78 (2.16, 10.60), <0.001 |  | 4.59 (2.31, 9.14), <0.001 |  |
| Strong and supportive relationship with family |  | 0.72 |  | 0.63 |
| No | 1.00 |  | 1.00 |  |
| Yes | 1.20 (0.44, 3.30), 0.72 |  | 0.80 (0.32, 2.01), 0.63 |  |
| Drove vehicle in the last 90 days |  | 0.53 |  | 0.23 |
| No | 1.00 |  | 1.00 |  |
| Yes | 1.18 (0.70, 2.02), 0.53 |  | 1.35 (0.83, 2.22), 0.23 |  |
| Length of stay in RV (year) | 0.97 (0.93, 1.01), 0.17 | 0.17 | 1.00 (0.96, 1.04), 0.93 | 0.93 |
| Village size (units) |  | 0.08 |  | 0.19 |
| <60 | 1.00 |  | 1.00 |  |
| ≥60 | 1.81 (0.94, 3.51), 0.08 |  | 1.48 (0.82, 2.65), 0.19 |  |
| Sampling method |  | 0.40 |  | 0.31 |
| Sampled | 1.00 |  | 1.00 |  |
| Volueenterr | 1.23 (0.76, 1.97), 0.40 |  | 0.80 (0.52, 1.23), 0.31 |  |
| Do you currently have a pet in your household |  | 0.24 |  | 0.56 |
| No | 1.00 |  | 1.00 |  |
| Yes | 1.49 (0.77, 2.87), 0.24 |  | 1.20 (0.64, 2.23), 0.56 |  |
| How would you describe your quality of life |  | 0.02 |  | 0.008 |
| Poor/Fair | 3.75 (1.57, 8.96), 0.003 |  | 2.90 (1.26, 6.69), 0.01 |  |
| Good | 1.91 (1.00, 3.65), 0.05 |  | 2.23 (1.24, 4.03),0.008 |  |
| Very Good | 1.69 (0.94, 3.03), 0.08 |  | 2.24 (1.34, 3.77),0.002 |  |
| Excellent | 1.00 |  | 1.00 |  |
| Memory recall ability: short-term memory |  | 0.07 |  | 0.12 |
| Yes memory OK | 1.00 |  | 1.00 |  |
| Memory problem | 1.78 (0.96, 3.30), 0.07 |  | 1.61 (0.88, 2.96), 0.12 |  |
| CAP: Physical activities promotion |  | 0.75 |  | 0.95 |
| Not triggered | 1.00 |  | 1.00 |  |
| Triggered | 1.08 (0.67, 1.74), 0.75 |  | 1.01 (0.66, 1.56), 0.95 |  |
| CAP: Mood (depression risk) |  | <0.001 |  | <0.001 |
| Not triggered (DRS=0) | 1.00 |  | 1.00 |  |
| Medium risk (DRS=1-2) | 2.55 (1.51, 4.30), <0.001 |  | 2.47 (1.48, 4.14), <0.001 |  |
| High risk (DRS=3-14) | 3.99 (1.39, 11.48), 0.01 |  | 4.83 (1.55, 15.00), 0.007 |  |
| CAP: Informal support |  | 0.21 |  | 0.17 |
| Not triggered | 1.00 |  | 1.00 |  |
| Triggered | 1.42 (0.82, 2.46), 0.21 |  | 0.69 (0.41, 1.17), 0.17 |  |
| Pain scale (Range 0-4) | 0.97 (0.79, 1.20), 0.81 | 0.81 | 1.01 (0.83, 1.22), 0.94 | 0.94 |
| Some level of dual sensory loss (Deaf/Blind severity ≥ 3) |  | 0.66 |  | 0.22 |
| No | 1.00 |  | 1.00 |  |
| Yes | 1.18 (0.57, 2.43), 0.66 |  | 1.56 (0.77, 3.16), 0.22 |  |
| CAP: Falls |  | 0.94 |  | 0.25 |
| Not triggered | 1.00 |  | 1.00 |  |
| Medium risk | 0.92 (0.43, 1.97), 0.84 |  | 1.54 (0.77, 3.09), 0.22 |  |
| High risk | 1.17 (0.21, 6.65), 0.86 |  | 2.93 (0.47, 18.40), 0.25 |  |
| Taking anti-depressant medication (SSRIs) |  | 0.02 |  | 0.20 |
| No | 1.00 |  | 1.00 |  |
| Yes | 1.87 (1.09, 3.21), 0.02 |  | 1.40 (0.84, 2.35), 0.20 |  |
| Moving to a RV in order to gain more social connections |  | 0.06 |  | 0.003 |
| No | 1.00 |  | 1.00 |  |
| Yes | 1.56 (0.98, 2.47), 0.06 |  | 1.90 (1.24, 2.91), 0.003 |  |

Notes, Prior to performing the analyses, we used multiple imputation to deal with the missing data. Briefly, multiple imputation uses using fully conditional specification (FCS) to generate multiple copies of the data set, each of which contains different estimates of the missing values. We used the FCS option in the SAS MI procedure to generate 10 imputed data sets and 100 iterations of the imputation algorithm. The imputation process included all the variables in the above table. For continuous variable (e.g. Length of stay in RV), the imputation method is regression, and for the left binary or categorical variables, the imputation method is discrimination function. After creating the complete data sets, we estimated the multivariable logistic regression models on each filled-in data set and subsequently used Rubin’s (1987) formulas to combine the parameter estimates and standard errors into a single set of results.