**Supplementary Material**

**Supplementary Table S1: Differential item functioning by gender (male/female)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Uniform** | | | **Non-uniform** | | |
| **Item** | **MS** | ***F*** | ***p*** | **MS** | ***F*** | ***p*** |
| Do you feel that your relative asks for more help than he/she needs? | 9.39 | 7.96 | 0.0050 | 0.41 | 0.35 | 0.9596 |
| Do you feel that because of the time you spend with your relative that you don’t have enough time for yourself? | 0.64 | 1.00 | 0.3182 | 1.14 | 1.78 | 0.0704 |
| Do you feel stressed between caring for your relative and trying to meet other responsibilities for your family or work? | 2.91 | 4.29 | 0.0389 | 1.42 | 2.10 | 0.0284 |
| Do you feel embarrassed over your relative’s behaviour? | 4.26 | 4.08 | 0.0439 | 1.12 | 1.07 | 0.3828 |
| Do you feel angry when you are around your relative? | 6.80 | 8.01 | 0.0049 | 0.49 | 0.57 | 0.8202 |
| Do you feel that your relative currently affects our relationships with other family members or friends in a negative way? | 0.01 | 0.01 | 0.9298 | 0.55 | 0.68 | 0.7310 |
| Are you afraid what the future holds for your relative? | 0.35 | 0.29 | 0.5900 | 1.06 | 0.89 | 0.5387 |
| Do you feel your relative is dependent on you? | 0.00 | 0.00 | 0.9636 | 1.21 | 1.16 | 0.3160 |
| Do you feel strained when you are around your relative? | 0.00 | 0.00 | 0.9917 | 0.48 | 0.61 | 0.7874 |
| Do you feel your health has suffered because of your involvement with your relative? | 0.00 | 0.00 | 0.9486 | 0.96 | 1.13 | 0.3369 |
| Do you feel that you don’t have as much privacy as you would like because of your relative? | 0.12 | 0.15 | 0.6993 | 0.47 | 0.58 | 0.8124 |
| Do you feel that your social life has suffered because you are caring for your relative? | 6.34 | 8.56 | 0.0036 | 1.41 | 1.90 | 0.0495 |
| Do you feel uncomfortable about having friends over because of your relative? | 0.21 | 0.25 | 0.6203 | 0.53 | 0.63 | 0.7710 |
| Do you feel that your relative seems to expect you to take care of him/her as if you were the only one he/she could depend on? | 1.33 | 1.31 | 0.2524 | 0.88 | 0.87 | 0.5555 |
| Do you feel that you don’t have enough money to take care of your relative in addition to the rest of your expenses? | 0.31 | 0.24 | 0.6226 | 2.07 | 1.64 | 0.1017 |
| Do you feel that you will be unable to take care of your relative much longer? | 8.98 | 8.27 | 0.0042 | 2.02 | 1.86 | 0.0562 |
| Do you feel you have lost control of your life since your relative’s illness? | 0.06 | 0.08 | 0.7812 | 0.79 | 1.00 | 0.4418 |
| Do you wish you could leave the care of your relative to someone else? | 0.21 | 0.19 | 0.6617 | 1.09 | 0.97 | 0.4651 |
| Do you feel uncertain about what to do about your relative? | 0.27 | 0.29 | 0.5888 | 1.61 | 1.73 | 0.0808 |
| Do you feel you should be doing more for your relative? | 3.69 | 3.05 | 0.0813 | 0.55 | 0.45 | 0.9060 |
| Do you feel you could do a better job in caring for your relative? | 9.09 | 7.89 | 0.0052 | 1.27 | 1.10 | 0.3621 |
| Overall, how burdened do you feel in caring for your relative? | 1.45 | 2.20 | 0.1389 | 1.36 | 2.07 | 0.0308 |

*Note: Bonferroni-adjusted p-value 0.000758 (0.05/66). The number of degrees of freedom was one for uniform differential item functioning and nine for non-uniform differential item functioning. Mean square (MS).*

**Supplementary Table S2: Differential item functioning by country (UK/US)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Uniform** | | | **Non-uniform** | | |
| **Item** | **MS** | ***F*** | ***p*** | **MS** | ***F*** | ***p*** |
| Do you feel that your relative asks for more help than he/she needs? | 7.39 | 6.39 | 0.0118 | 1.76 | 1.52 | 0.1371 |
| Do you feel that because of the time you spend with your relative that you don’t have enough time for yourself? | 2.05 | 3.13 | 0.0777 | 0.20 | 0.30 | 0.9736 |
| Do you feel stressed between caring for your relative and trying to meet other responsibilities for your family or work? | 0.36 | 0.50 | 0.4794 | 0.15 | 0.21 | 0.9925 |
| Do you feel embarrassed over your relative’s behaviour? | 0.64 | 0.61 | 0.4360 | 1.28 | 1.22 | 0.2780 |
| Do you feel angry when you are around your relative? | 5.18 | 6.20 | 0.0132 | 1.27 | 1.51 | 0.1407 |
| Do you feel that your relative currently affects our relationships with other family members or friends in a negative way? | 5.25 | 6.59 | 0.0106 | 0.62 | 0.78 | 0.6355 |
| Are you afraid what the future holds for your relative? | 3.27 | 2.71 | 0.1002 | 0.35 | 0.29 | 0.9778 |
| Do you feel your relative is dependent on you? | 0.00 | 0.00 | 1.0000 | 1.11 | 1.06 | 0.3913 |
| Do you feel strained when you are around your relative? | 0.57 | 0.74 | 0.3901 | 1.05 | 1.35 | 0.2092 |
| Do you feel your health has suffered because of your involvement with your relative? | 4.72 | 5.76 | 0.0168 | 2.04 | 2.49 | 0.0089 |
| Do you feel that you don’t have as much privacy as you would like because of your relative? | 0.01 | 0.01 | 0.9324 | 1.47 | 1.86 | 0.0562 |
| Do you feel that your social life has suffered because you are caring for your relative? | 5.62 | 7.43 | 0.0067 | 0.67 | 0.88 | 0.5410 |
| Do you feel uncomfortable about having friends over because of your relative? | 0.01 | 0.01 | 0.9085 | 0.38 | 0.45 | 0.9065 |
| Do you feel that your relative seems to expect you to take care of him/her as if you were the only one he/she could depend on? | 2.29 | 2.27 | 0.1330 | 0.97 | 0.96 | 0.4743 |
| Do you feel that you don’t have enough money to take care of your relative in addition to the rest of your expenses? | 5.49 | 4.32 | 0.0382 | 0.98 | 0.77 | 0.6438 |
| Do you feel that you will be unable to take care of your relative much longer? | 0.48 | 0.42 | 0.5178 | 0.43 | 0.38 | 0.9460 |
| Do you feel you have lost control of your life since your relative’s illness? | 7.29 | 9.39 | 0.0023 | 0.77 | 0.99 | 0.4494 |
| Do you wish you could leave the care of your relative to someone else? | 5.14 | 4.60 | 0.0324 | 0.71 | 0.63 | 0.7683 |
| Do you feel uncertain about what to do about your relative? | 0.07 | 0.08 | 0.7836 | 1.19 | 1.27 | 0.2522 |
| Do you feel you should be doing more for your relative? | 4.20 | 3.51 | 0.0618 | 0.94 | 0.79 | 0.6275 |
| Do you feel you could do a better job in caring for your relative? | 7.62 | 6.58 | 0.0107 | 1.04 | 0.90 | 0.5261 |
| Overall, how burdened do you feel in caring for your relative? | 1.55 | 2.32 | 0.1281 | 0.91 | 1.37 | 0.2005 |

*Note: Bonferroni-adjusted p-value 0.000758 (0.05/66). The number of degrees of freedom was one for uniform differential item functioning and nine for non-uniform differential item functioning. Mean square (MS).*