**Comparison of estimation techniques for model 1**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **OLS** | **ALDVMM** | **BETA** |
| ConstantPATIENT DEMOGRAPHICS Age (years) Sex (male) PATIENT HEALTH STATUS CHANGE Mobility Worse Improvement Self-care Worse Improvement Usual activities Worse Improvement  Pain/discomfort Worse  Improvement Anxiety/depression Worse Improvement   | 0.486 (0.00)0.000 (0.72)-0.021 (0.22)-0.065 (0.01) 0.075 (0.01) 0.018 (0.52)0.005 (0.86)0.031 (0.07)0.043(0.04)-0.002 (0.92)-0.008 (0.72)-0.028 (0.08)-0.031 (0.12) | 0.486 (0.00)0.000 (0.33)-0.014 (0.21)-0.065 (0.01) 0.075 (0.01) 0.018 (0.50)0.005 (0.86)0.031 (0.06)0.043(0.03)-0.001 (0.92)-0.008 (0.72)-0.028 (0.07)-0.031 (0.10) | -0.047 (0.39)-0.000 (0.55)-0.014 (0.43)-0.272 (0.01) 0.381 (0.00) 0.078 (0.50)-0.003 (0.98)0.119 (0.09)0.200(0.02)0.014 (0.82)0.036 (0.72)-0.112 (0.07)-0.135 (0.10) |
| MODEL CHARACTERISTICSAICBIC | -427-384 | -425-379 | -407-360 |

**Comparison of estimation techniques for model 2**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **OLS** | **ALDVMM** | **BETA** |
| ConstantPATIENT DEMOGRAPHICS Age (years) Sex (male) PATIENT HEALTH STATUS CHANGE Mobility Worse Improvement Self-care Worse Improvement Usual activities Worse Improvement  Pain/discomfort Worse  Improvement Anxiety/depression Worse Improvement PATIENT AFTER EFFECTS Behavioural problems Mild learning disability Scarring Balance problems Speech problems | 0.482 (0.00)0.000 (0.33)-0.015 (0.21)-0.062 (0.02) 0.083 (0.01) -0.000 (0.99)0.010 (0.71)0.042 (0.02)0.050(0.02)-0.000 (0.98)-0.016 (0.50)-0.024 (0.12)-0.029 (0.15)0.012 (0.37)-0.018 (0.21)0.010 (0.48)-0.057 (0.00)0.016 (0.42) | 0.482 (0.00)0.000 (0.33)-0.015 (0.21)-0.062 (0.01) 0.083 (0.00) -0.000 (0.99)0.010 (0.70)0.042 (0.01)0.050(0.01)-0.000 (0.98)-0.016 (0.48)-0.024 (0.10)-0.029 (0.13)0.012 (0.34)-0.018 (0.19)0.010 (0.46)-0.057 (0.00)0.016 (0.40) | -0.0069 (0.25)0.001 (0.33)-0.074 (0.12)-0.262 (0.01) 0.398 (0.00) -0.013 (0.91)0.023 (0.84)0.172 (0.01)0.230(0.01)0.018 (0.78)-0.073 (0.44)-0.096 (0.12)-0.125 (0.12)0.058 (0.26)0.089 (0.13)0.036 (0.54)-0.252 (0.00)0.090 (0.24) |
| MODEL CHARACTERISTICSAICBIC | -430-370 | -428-365 | -412-348 |

**Comparison of estimation techniques for model 3**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **OLS** | **ALDVMM** | **BETA** |
| ConstantPATIENT DEMOGRAPHICS Age (years) Sex (male) PATIENT HEALTH STATUS CHANGE Mobility Worse Improvement Self-care Worse Improvement Usual activities Worse Improvement  Pain/discomfort Worse  Improvement Anxiety/depression Worse Improvement PATIENT AFTER EFFECTS Behavioural problems Mild learning disability Scarring Balance problems Speech problemsPATIENT HEALTHCARE (LAST 12 MONTHS) GP Outpatient  Inpatient | 0.476 (0.00)0.000 (0.98)-0.008 (0.53)-0.060 (0.02) 0.104 (0.00) -0.005 (0.86)0.015 (0.60)0.040 (0.02)0.045(0.03)-0.003 (0.84)-0.010 (0.67)-0.025 (0.10)-0.031 (0.12)0.011 (0.38)-0.018 (0.23)0.007 (0.64)-0.058 (0.00)0.008 (0.67)0.031 (0.02)-0.023 (0.10)0.037 (0.10) | 0.476 (0.00)0.000 (0.99)-0.008 (0.51)-0.060 (0.01) 0.104 (0.00) -0.005 (0.86)0.015 (0.57)0.040 (0.01)0.045(0.02)-0.003 (0.83)-0.010 (0.66)-0.025 (0.08)-0.031 (0.10)0.011 (0.36)-0.018 (0.20)0.007 (0.62)-0.058 (0.00)0.008 (0.66)0.031 (0.02)-0.023 (0.09)0.037 (0.08) | -0.0069 (0.25)0.000 (0.99)-0.045 (0.56)-0.256 (0.01) 0.483 (0.00) -0.032 (0.78)0.040 (0.71)0.165 (0.02)0.208(0.01)0.008 (0.90)-0.053 (0.58)-0.098 (0.10)-0.133 (0.09)0.056 (0.27)-0.088 (0.13)0.021 (0.72)-0.256 (0.00)0.059 (0.44)0.128 (0.02)-0.097 (0.09)0.138 (0.11) |
| MODEL CHARACTERISTICSAICBIC | -433-363 | -431-357 | -412-348 |

**Comparison of estimation techniques for model 4**

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **OLS** | **ALDVMM** | **BETA** |
| ConstantPATIENT DEMOGRAPHICS Age (years) Sex (male) PATIENT HEALTH STATUS CHANGE Mobility Worse Improvement Self-care Worse Improvement Usual activities Worse Improvement  Pain/discomfort Worse  Improvement Anxiety/depression Worse Improvement PATIENT AFTER EFFECTS Behavioural problems Mild learning disability Scarring Balance problems Speech problemsPATIENT HEALTHCARE (LAST 12 MONTHS) GP Outpatient  InpatientCARE-RELATED VARIABLES Age (years) Sex (male) Biological relationship (Yes) Co-resident (No)  Daily care (Yes)  | 0.508 (0.00)-0.001 (0.26)-0.010 (0.45)-0.050 (0.06) 0.102 (0.00) -0.002 (0.95)0.017 (0.54)0.039 (0.03)0.051(0.01)0.001 (0.98)-0.009 (0.72)-0.027 (0.08)-0.029 (0.15)0.010 (0.43)-0.015 (0.31)0.007 (0.62)-0.061 (0.00)0.005 (0.80)0.030 (0.03)-0.017 (0.23)0.030 (0.18)-0.001 (0.39)-0.011 (0.57)0.060 (0.03)0.023 (0.16)-0.004 (0.83) | 0.508 (0.00)-0.001 (0.23)-0.010 (0.42)-0.050 (0.04) 0.102 (0.00) -0.002 (0.95)0.017 (0.52)0.039 (0.02)0.051(0.01)0.001 (0.97)-0.009 (0.70)-0.027 (0.06)-0.029 (0.12)0.010 (0.40)-0.015 (0.28)0.007 (0.60)-0.061 (0.00)0.005 (0.79)0.030 (0.02)-0.017 (0.20)0.030 (0.15)-0.001 (0.36)-0.011 (0.54)0.060 (0.02)0.023 (0.13)-0.004 (0.82) | 0.028 (0.84)-0.003 (0.23)-0.052 (0.30)-0.211 (0.04) 0.478 (0.00) -0.032 (0.88)0.040 (0.60)0.163 (0.02)0.234(0.00)0.021 (0.74)-0.047 (0.62)-0.108 (0.07)-0.123 (0.12)0.052 (0.30)-0.080 (0.18)0.023 (0.69)-0.267 (0.00)0.053 (0.50)0.127 (0.02)-0.072 (0.21)0.111 (0.21)-0.002 (0.45)-0.049 (0.50)0.244 (0.02)0.085 (0.18)-0.034 (0.62) |
| MODEL CHARACTERISTICSAICBIC | -430-343 | -428-338 | -411-320 |