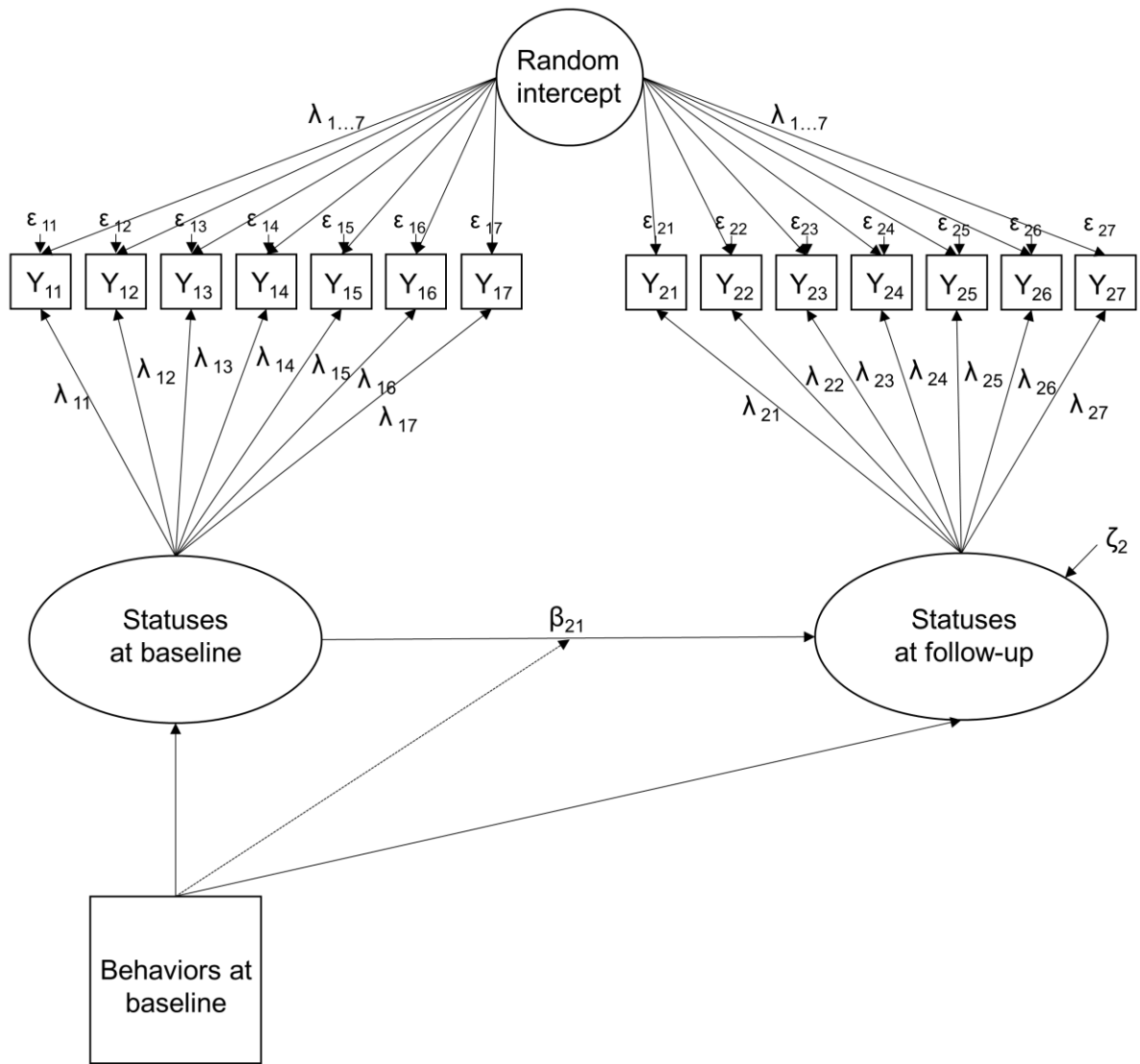


Supplemental Figure A. Latent transition analysis model of cognition with covariates moderating transition probabilities



Supplemental Table A. Fit indices for latent class analyses of cognition data for the 2012 and 2018 waves of the Mexican Health and Aging Study.

| Number of classes | BIC | LMR (p-value) | Adjusted LMR (p-value) | Entropy | Range of class size proportions |
|--------------------------|------------|----------------------|-------------------------------|----------------|--|
| <i>2012 wave</i> | | | | | |
| 2 | 57706.471 | 0.0000 | 0.0000 | 0.578 | 0.28-0.72 |
| 3 | 57407.542 | 0.0000 | 0.0000 | 0.633 | 0.12-0.69 |
| 4 | 57270.679 | 0.0000 | 0.0000 | 0.545 | 0.06-0.50 |
| 5 | 57298.067 | 0.0136 | 0.0144 | 0.611 | 0.04-0.55 |
| 6 | 57345.023 | 0.2868 | 0.2920 | 0.618 | 0.01-0.52 |
| <i>2018 wave</i> | | | | | |
| 2 | 38526.025 | 0.0000 | 0.0000 | 0.613 | 0.29-0.71 |
| 3 | 38401.026 | 0.0000 | 0.0000 | 0.574 | 0.18-0.62 |
| 4 | 38384.082 | 0.0001 | 0.0001 | 0.541 | 0.07-0.54 |
| 5 | 38416.086 | 0.0003 | 0.0003 | 0.609 | 0.03-0.55 |
| 6 | 38466.723 | 0.6882 | 0.6927 | 0.592 | 0.05-0.57 |

Supplemental Table B. Estimates for probabilities/thresholds of impairment at baseline of latent statuses identified in random intercept-latent transition analysis among participants from the Mexican Health and Aging Study included in these analyses (n=9,091).

| Characteristic | Normal cognition (n = 5,376) | Temporal disorientation (n = 1,378) | Perceptual-motor function impairment (n = 736) | Learning and memory impairment (n = 1,601) |
|---|---------------------------------|--|---|---|
| <i>Probability of impairment (τ; SE)</i> | | | | |
| Date orientation | 0.00 (8.766; 2.421) | 0.32 (0.772; 0.149) | 0.19 (1.423; 0.251) | 0.22 (1.250; 0.157) |
| Verbal learning | 0.12 (2.004; 0.133) | 0.08 (2.454; 0.239) | 0.16 (1.642; 0.233) | 0.77 (- 1.184; 0.216) |
| Verbal memory | 0.08 (2.392; 0.127) | 0.10 (2.208; 0.134) | 0.16 (1.635; 0.168) | 0.50 (0.004; 0.115) |
| Verbal fluency | 0.08 (2.484; 0.074) | 0.06 (2.841; 0.152) | 0.09 (2.358; 0.224) | 0.27 (1.018; 0.100) |

| | | | | |
|------------------------------|---------------------------|------------------------|-----------------------------|------------------------|
| Visual scanning | 0.12 (1.971; 0.079) | 0.07 (2.615; 0.140) | 0.19 (1.477; 0.192) | 0.21 (1.330; 0.125) |
| Constructional praxis | 0.05 (2.879; 0.161) | 0.05 (2.988; 0.380) | 1.00 (-6.10; 1.226) | 0.13 (1.890; 0.153) |
| Constructional praxis memory | 0.10 (2.172; 0.071) | 0.10 (2.152; 0.109) | 0.61 (- 0.433; 0.245) | 0.23 (1.226; 0.104) |

Supplemental Table C. Association between engaging in various social and leisure time activities with baseline cognitive statuses relative to normal cognition status among participants from the Mexican Health and Aging Study included in these analyses (n=9,091).

| Behavior | Learning and memory impairment | | | Perceptual-motor function impairment | | | Temporal disorientation | | |
|-----------------------|---|----------------|---------|---|----------------|---------|---|----------------|---------|
| | Estimate ^a (Odds ratio ^b) | Standard error | P | Estimate ^a (Odds ratio ^b) | Standard error | P | Estimate ^a (Odds ratio ^b) | Standard error | P |
| Volunteering | -0.704 (0.49) | 0.241 | 0.004* | -0.042 | 0.226 | 0.853 | 0.212 | 0.180 | 0.238 |
| Attending a class | -0.799 (0.45) | 0.168 | <0.001* | -0.346 | 0.186 | 0.062 | -0.016 | 0.139 | 0.911 |
| Sports or social club | -0.678 (0.51) | 0.235 | 0.004* | -0.721 (0.49) | 0.351 | 0.040* | -0.220 | 0.195 | 0.260 |
| Reading | -1.140 (0.32) | 0.126 | <0.001* | -1.612 (0.20) | 0.173 | <0.001* | -0.852 (0.43) | 0.126 | <0.001* |
| Puzzles | -1.352 (0.26) | 0.218 | <0.001* | -0.996 (0.37) | 0.221 | <0.001* | -0.142 | 0.157 | 0.364 |
| Playing games | -0.953 (0.39) | 0.240 | <0.001* | -0.855 (0.43) | 0.260 | 0.001* | 0.303 | 0.181 | 0.094 |

| | | | | | | | | | |
|--|------------------|-------|-------------|------------------|-------|-------------|------------------|-------|-------------|
| Phones and internet | -1.111 (0.33) | 0.111 | <0.001 * | -0.902 (0.41) | 0.139 | <0.001 * | -0.292 (0.75) | 0.127 | 0.021 |
| Gardening /maintena nce | -0.714 (0.49) | 0.114 | <0.001 * | -0.415 (0.66) | 0.122 | 0.001* | -0.064 | 0.100 | 0.522 |
| Watching television | -1.243 (0.29) | 0.171 | <0.001 * | -1.362 (0.26) | 0.187 | <0.001 * | -0.776 (0.51) | 0.200 | <0.001 * |
| Sewing or other crafts | -1.201 (0.30) | 0.151 | <0.001 * | -0.511 (0.60) | 0.149 | 0.001* | 0.039 | 0.111 | 0.725 |
| Engaging in at least 4 of the above activities | -1.509 (0.22) | 0.141 | <0.001 * | -1.382 (0.25) | 0.165 | <0.001 * | -0.306 (0.74) | 0.129 | 0.018 |

^aLog odds, relative to the normal cognition status

^bOdds ratios presented for statistically significant results

Supplemental Table D. Moderating effects of reporting engagement in social and leisure time activities at baseline on subsequent transitions in cognitive statuses among participants from the Mexican Health and Aging Study included in these analyses (log odds; n=9,091)¹.

Volunteering

| <i>From:</i> | LM-I | <i>Est.</i> | <i>SE</i> | <i>P</i> | <i>From:</i> | PMF-I | <i>Est.</i> | <i>SE</i> | <i>P</i> | <i>From:</i> | TD | <i>Est.</i> | <i>SE</i> | <i>P</i> | <i>From:</i> | NC | <i>Est.</i> | <i>SE</i> | <i>P</i> |
|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|
| <i>To:</i> | D | -1.01 | 0.62 | 0.10 | <i>To:</i> | D | -0.90 | 0.91 | 0.41 | <i>To:</i> | D | -0.50 | 0.47 | 0.29 | <i>To:</i> | D | -0.08 | 0.32 | 0.81 |
| | LM-I | Ref | Ref | Ref | | LM-I | 0.86 | 0.89 | 0.33 | | LM-I | -0.15 | 0.58 | 0.80 | | LM-I | -0.60 | 0.49 | 0.22 |
| | PMF-I | -0.80 | 1.09 | 0.46 | | PMF-I | Ref | Ref | Ref | | PMF-I | NA | NA | NA | | PMF-I | -1.05 | 0.25 | 0.40 |
| | TD | NA | NA | NA | | TD | NA | NA | NA | | TD | Ref | Ref | Ref | | TD | NA | NA | NA |
| | NC | 0.64 | 0.95 | 0.50 | | NC | 1.24 | 0.76 | 0.11 | | NC | 0.65 | 0.42 | 0.13 | | NC | Ref | Ref | Ref |

Attending a class

| <i>From:</i> | LM-I | <i>Est.</i> | <i>SE</i> | <i>P</i> | <i>From:</i> | PMF-I | <i>Est.</i> | <i>SE</i> | <i>P</i> | <i>From:</i> | TD | <i>Est.</i> | <i>SE</i> | <i>P</i> | <i>From:</i> | NC | <i>Est.</i> | <i>SE</i> | <i>P</i> |
|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|
| <i>To:</i> | D | -0.22 | 0.31 | 0.48 | <i>To:</i> | D | -0.25 | 0.54 | 0.64 | <i>To:</i> | D | -1.72 | 0.78 | 0.03 | <i>To:</i> | D | -0.02 | 0.23 | 0.95 |
| | LM-I | Ref | Ref | Ref | | LM-I | -0.08 | 1.01 | 0.85 | | LM-I | 0.27 | 0.44 | 0.54 | | LM-I | -0.56 | 0.36 | 0.12 |
| | PMF-I | -0.30 | 1.54 | 0.85 | | PMF-I | Ref | Ref | Ref | | PMF-I | -0.85 | 2.08 | 0.68 | | PMF-I | 0.20 | 0.45 | 0.65 |
| | TD | NA | NA | NA | | TD | 0.20 | 1.05 | 0.85 | | TD | Ref | Ref | Ref | | TD | NA | NA | NA |
| | NC | 0.85 | 0.73 | 0.25 | | NC | 0.25 | 0.69 | 0.71 | | NC | 0.66 | 0.38 | 0.08 | | NC | Ref | Ref | Ref |

Sports or social club

| <i>From:</i> | LM-I | <i>Est.</i> | <i>SE</i> | <i>P</i> | <i>From:</i> | PMF-I | <i>Est.</i> | <i>SE</i> | <i>P</i> | <i>From:</i> | TD | <i>Est.</i> | <i>SE</i> | <i>P</i> | <i>From:</i> | NC | <i>Est.</i> | <i>SE</i> | <i>P</i> |
|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|
| <i>To:</i> | D | 0.09 | 0.46 | 0.84 | <i>To:</i> | D | -0.07 | 1.03 | 0.95 | <i>To:</i> | D | -0.33 | 0.63 | 0.61 | <i>To:</i> | D | -0.51 | 0.44 | 0.25 |
| | LM-I | Ref | Ref | Ref | | LM-I | -0.18 | 1.72 | 0.92 | | LM-I | -0.75 | 0.90 | 0.41 | | LM-I | 0.09 | 0.31 | 0.78 |
| | PMF-I | 0.28 | 2.05 | 0.89 | | PMF-I | Ref | Ref | Ref | | PMF-I | 1.05 | 1.06 | 0.32 | | PMF-I | NA | NA | NA |
| | TD | NA | NA | NA | | TD | NA | NA | NA | | TD | Ref | Ref | Ref | | TD | NA | NA | NA |
| | NC | 0.90 | 1.02 | 0.38 | | NC | 0.759 | 1.05 | 0.48 | | NC | 0.67 | 0.54 | 0.21 | | NC | Ref | Ref | Ref |

Reading

| <i>From:</i> | LM-I | <i>Est.</i> | <i>SE</i> | <i>P</i> | <i>From:</i> | PMF-I | <i>Est.</i> | <i>SE</i> | <i>P</i> | <i>From:</i> | TD | <i>Est.</i> | <i>SE</i> | <i>P</i> | <i>From:</i> | NC | <i>Est.</i> | <i>SE</i> | <i>P</i> |
|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|
| <i>To:</i> | D | -0.15 | 0.19 | 0.45 | <i>To:</i> | D | -0.02 | 0.38 | 0.96 | <i>To:</i> | D | -0.05 | 0.29 | 0.86 | <i>To:</i> | D | -0.11 | 0.23 | 0.63 |
| | LM-I | Ref | Ref | Ref | | LM-I | -0.51 | 0.75 | 0.50 | | LM-I | 0.11 | 0.39 | 0.78 | | LM-I | -0.48 | 0.21 | 0.02 |
| | PMF-I | -0.35 | 0.68 | 0.60 | | PMF-I | Ref | Ref | Ref | | PMF-I | 0.83 | 0.81 | 0.31 | | PMF-I | -0.38 | 0.31 | 0.22 |

| | | | | | | | | | | | | | | | | | | | |
|--|----|------|------|------|--|----|-------|------|------|--|----|------|------|------|--|----|-----|-----|-----|
| | TD | 2.45 | 0.74 | 0.00 | | TD | -0.14 | 0.38 | 0.72 | | TD | Ref | Ref | Ref | | TD | NA | NA | NA |
| | NC | 0.63 | 0.74 | 0.40 | | NC | 1.14 | 0.38 | 0.00 | | NC | 2.11 | 0.43 | 0.00 | | NC | Ref | Ref | Ref |

Puzzles

| | | | | | | | | | | | | | | | | | | | |
|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|
| From: | LM-I | | | | From: | PMF-I | | | | From: | TD | | | | From: | NC | | | |
| | | <i>Est.</i> | <i>SE</i> | <i>P</i> | | | <i>Est.</i> | <i>SE</i> | <i>P</i> | | | <i>Est.</i> | <i>SE</i> | <i>P</i> | | | <i>Est.</i> | <i>SE</i> | <i>P</i> |
| To: | D | 0.10 | 0.40 | 0.80 | To: | D | -0.68 | 0.89 | 0.44 | To: | D | 0.05 | 0.49 | 0.91 | To: | D | -0.40 | 0.24 | 0.09 |
| | LM-I | Ref | Ref | Ref | | LM-I | 1.13 | 0.72 | 0.12 | | LM-I | 0.22 | 0.62 | 0.72 | | LM-I | -0.38 | 0.26 | 0.15 |
| | PMF-I | NA | NA | NA | | PMF-I | Ref | Ref | Ref | | PMF-I | 1.74 | 0.88 | 0.05 | | PMF-I | -1.05 | 0.77 | 0.17 |
| | TD | NA | NA | NA | | TD | NA | NA | NA | | TD | Ref | Ref | Ref | | TD | NA | NA | NA |
| | NC | 0.75 | 1.10 | 0.49 | | NC | 0.73 | 0.67 | 0.27 | | NC | 1.63 | 0.45 | 0.00 | | NC | Ref | Ref | Ref |

Playing games

| | | | | | | | | | | | | | | | | | | | |
|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|
| From: | LM-I | | | | From: | PMF-I | | | | From: | TD | | | | From: | NC | | | |
| | | <i>Est.</i> | <i>SE</i> | <i>P</i> | | | <i>Est.</i> | <i>SE</i> | <i>P</i> | | | <i>Est.</i> | <i>SE</i> | <i>P</i> | | | <i>Est.</i> | <i>SE</i> | <i>P</i> |
| To: | D | 0.02 | 0.34 | 0.96 | To: | D | -0.24 | 0.89 | 0.79 | To: | D | -0.10 | 0.34 | 0.78 | To: | D | -0.56 | 0.41 | 0.17 |
| | LM-I | Ref | Ref | Ref | | LM-I | -0.45 | 1.78 | 0.80 | | LM-I | -0.33 | 0.48 | 0.48 | | LM-I | -0.29 | 0.34 | 0.41 |
| | PMF-I | NA | NA | NA | | PMF-I | Ref | Ref | Ref | | PMF-I | 0.31 | 1.00 | 0.76 | | PMF-I | -1.44 | 1.92 | 0.45 |
| | TD | -0.58 | 9.60 | 0.95 | | TD | -0.41 | 2.04 | 0.84 | | TD | Ref | Ref | Ref | | TD | NA | NA | NA |
| | NC | -0.08 | 1.44 | 0.96 | | NC | 1.12 | 0.88 | 0.20 | | NC | 0.37 | 0.41 | 0.36 | | NC | Ref | Ref | Ref |

Phones and internet

| | | | | | | | | | | | | | | | | | | | |
|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|
| From: | LM-I | | | | From: | PMF-I | | | | From: | TD | | | | From: | NC | | | |
| | | <i>Est.</i> | <i>SE</i> | <i>P</i> | | | <i>Est.</i> | <i>SE</i> | <i>P</i> | | | <i>Est.</i> | <i>SE</i> | <i>P</i> | | | <i>Est.</i> | <i>SE</i> | <i>P</i> |
| To: | D | -0.27 | 0.16 | 0.10 | To: | D | -0.22 | 0.31 | 0.49 | To: | D | -0.01 | 0.27 | 0.96 | To: | D | -0.23 | 0.22 | 0.30 |
| | LM-I | Ref | Ref | Ref | | LM-I | -0.31 | 0.58 | 0.60 | | LM-I | -0.05 | 0.36 | 0.89 | | LM-I | -0.50 | 0.22 | 0.02 |
| | PMF-I | 0.09 | 0.67 | 0.90 | | PMF-I | Ref | Ref | Ref | | PMF-I | -0.41 | 0.78 | 0.60 | | PMF-I | 0.59 | 0.87 | 0.50 |
| | TD | NA | NA | NA | | TD | 0.21 | 0.69 | 0.76 | | TD | Ref | Ref | Ref | | TD | NA | NA | NA |
| | NC | 0.10 | 0.62 | 0.88 | | NC | 0.19 | 0.44 | 0.67 | | NC | 1.66 | 0.52 | 0.00 | | NC | Ref | Ref | Ref |

Gardening/maintenance

| | | | | | | | | | | | | | | | | | | | |
|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|
| From: | LM-I | | | | From: | PMF-I | | | | From: | TD | | | | From: | NC | | | |
| | | <i>Est.</i> | <i>SE</i> | <i>P</i> | | | <i>Est.</i> | <i>SE</i> | <i>P</i> | | | <i>Est.</i> | <i>SE</i> | <i>P</i> | | | <i>Est.</i> | <i>SE</i> | <i>P</i> |
| To: | D | -0.61 | 0.18 | 0.00 | To: | D | -0.18 | 0.35 | 0.60 | To: | D | -0.48 | 0.28 | 0.78 | To: | D | -0.32 | 0.18 | 0.08 |
| | LM-I | Ref | Ref | Ref | | LM-I | 0.09 | 0.57 | 0.87 | | LM-I | 0.13 | 0.34 | 0.70 | | LM-I | 0.00 | 0.00 | 1.00 |
| | PMF-I | -0.05 | 0.73 | 0.95 | | PMF-I | Ref | Ref | Ref | | PMF-I | -1.15 | 1.11 | 0.30 | | PMF-I | -0.21 | 0.36 | 0.55 |

| | | | | | | | | | | | | | | | | | | | |
|--|----|------|------|------|--|----|-------|------|------|--|----|------|------|------|--|----|-----|-----|-----|
| | TD | 0.88 | 4.15 | 0.83 | | TD | 1.65 | 1.55 | 0.29 | | TD | Ref | Ref | Ref | | TD | NA | NA | NA |
| | NC | 0.63 | 0.58 | 0.28 | | NC | -0.40 | 0.57 | 0.48 | | NC | 0.79 | 0.37 | 0.03 | | NC | Ref | Ref | Ref |

Watching television

| | | | | | | | | | | | | | | | | | | | |
|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|
| From: | LM-I | | | | From: | PMF-I | | | | From: | TD | | | | From: | NC | | | |
| | | Est. | SE | P | | | Est. | SE | P | | | Est. | SE | P | | | Est. | SE | P |
| To: | D | -0.39 | 0.21 | 0.06 | To: | D | -0.49 | 0.40 | 0.21 | To: | D | -0.85 | 0.35 | 0.02 | To: | D | 0.05 | 0.67 | 0.94 |
| | LM-I | Ref | Ref | Ref | | LM-I | -0.77 | 0.59 | 0.19 | | LM-I | -0.28 | 0.53 | 0.60 | | LM-I | -0.21 | 0.51 | 0.57 |
| | PMF-I | -0.21 | 0.84 | 0.81 | | PMF-I | Ref | Ref | Ref | | PMF-I | 0.05 | 1.33 | 0.97 | | PMF-I | -0.99 | 0.51 | 0.05 |
| | TD | 5.54 | 3.00 | 0.07 | | TD | -0.60 | 0.83 | 0.47 | | TD | Ref | Ref | Ref | | TD | NA | NA | NA |
| | NC | 0.76 | 1.21 | 0.53 | | NC | 2.11 | 2.90 | 0.47 | | NC | 0.72 | 0.66 | 0.28 | | NC | Ref | Ref | Ref |

Sewing or other crafts

| | | | | | | | | | | | | | | | | | | | |
|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|
| From: | LM-I | | | | From: | PMF-I | | | | From: | TD | | | | From: | NC | | | |
| | | Est. | SE | P | | | Est. | SE | P | | | Est. | SE | P | | | Est. | SE | P |
| To: | D | -0.14 | 0.25 | 0.58 | To: | D | -0.96 | 0.39 | 0.01 | To: | D | -0.89 | 0.30 | 0.00 | To: | D | -0.42 | 0.22 | 0.06 |
| | LM-I | Ref | Ref | Ref | | LM-I | -3.83 | 5.94 | 0.52 | | LM-I | -0.99 | 0.42 | 0.02 | | LM-I | -0.52 | 0.23 | 0.03 |
| | PMF-I | 0.16 | 0.94 | 0.86 | | PMF-I | Ref | Ref | Ref | | PMF-I | -1.00 | 1.34 | 0.46 | | PMF-I | 0.17 | 0.36 | 0.62 |
| | TD | NA | NA | NA | | TD | NA | NA | NA | | TD | Ref | Ref | Ref | | TD | NA | NA | NA |
| | NC | 0.01 | 1.15 | 1.00 | | NC | -0.07 | 0.39 | 0.87 | | NC | 0.37 | 0.30 | 0.29 | | NC | Ref | Ref | Ref |

Engaging in at least 4 of the above activities

| | | | | | | | | | | | | | | | | | | | |
|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|--------------|-------|-------------|-----------|----------|
| From: | LM-I | | | | From: | PMF-I | | | | From: | TD | | | | From: | NC | | | |
| | | Est. | SE | P | | | Est. | SE | P | | | Est. | SE | P | | | Est. | SE | P |
| To: | D | -0.47 | 0.21 | 0.03 | To: | D | -0.75 | 0.39 | 0.04 | To: | D | -0.28 | 0.27 | 0.30 | To: | D | -0.50 | 0.13 | 0.00 |
| | LM-I | Ref | Ref | Ref | | LM-I | -83 | 0.85 | 0.33 | | LM-I | 0.05 | 0.31 | 0.87 | | LM-I | -0.69 | 0.16 | 0.00 |
| | PMF-I | -0.715 | 1.00 | 0.47 | | PMF-I | Ref | Ref | Ref | | PMF-I | -0.41 | 0.83 | 0.62 | | PMF-I | -0.41 | 0.26 | 0.11 |
| | TD | NA | NA | NA | | TD | -0.26 | 0.66 | 0.69 | | TD | Ref | Ref | Ref | | TD | NA | NA | NA |
| | NC | -0.83 | 1.72 | 0.63 | | NC | 0.48 | 0.37 | 0.21 | | NC | 1.74 | 0.26 | 0.00 | | NC | Ref | Ref | Ref |

¹D=Death; LM-I=Learning and memory impairment; PMF-I=Perceptual-motor function impairment; TD=Temporal disorientation; NC=Normal cognition