**Appendix**

**Attrition analysis**

Among the present study sample of 24,425 individuals, around one-third of them (N = 8,633) provided complete responses to all the measures on cognition and depressive symptoms across the five waves. The proportion of individuals with missing data ranged from 20.3% to 34.9% (N = 4,948 – 8,522) for the core measures on cognition and depressive symptoms across the five waves. Compared to the group with complete data, profile comparison found that the group with missing data was significantly younger, more educated, and more likely to be males, married, live in urban regions, and retired (*p* < 0.001). However, most of the differences were modest in magnitude (Cohen *d* = 0.06 – 0.22), except for urbanicity (*d* = 0.31). The two groups showed trivial to small differences in lifetime smoking (*d* = 0.06), relationships with parents (*d* = 0.03 – 0.04), work status (*d* = 0.06), self-rated health (*d* = 0.19), alcohol drinking (*d* = 0.06), social participation (*d* = 0.09), cognition (*d* = 0.16), and depressive symptoms (*d* = 0.20).

**Results of sensitivity analysis**

Sensitivity analysis was conducted on the main RI-CLPM model (Model 7) in the dataset with complete data cases to check for the robustness of the results:

* In the dataset with complete data cases, the effects of the time-invariant covariates on the random intercepts were consistent in terms of both statistical significance and magnitude.
* In the dataset with complete data cases, most of the effects of the time-varying covariates on cognition and depressive symptoms were consistent, except that work status no longer showed significant effects on cognition at wave 3 (B = 0.183, SE = 0.096, *p* = 0.06), and depressive symptoms at wave 1 (B = -0.237, SE = 0.149, *p* = 0.11), and wave 3 (B = -0.154, SE = 0.119, *p* = 0.20).
* In Model 7, the dataset with complete data cases found consistent CL effects from cognition to depressive symptoms (B = -0.027, SE = 0.010, *p* < 0.01) and from depressive symptoms to cognition (B = -0.017, SE = 0.006, *p* < 0.01). The AR effects for depressive symptoms and cognition were also consistent in the dataset with complete data cases.