Table e-1 Association of hostility and effortful coping (Year 0, 1985-86) with cognitive function in mid-life (Year 25, 2010-11) adjusted for baseline cognitive ability (i.e. 'mirror-tracing star' test score) (Year 2, 1987-88); the CARDIA Study (n = 2,863).

Quartiles			Model 1		Model 2		Model 3		Model 4	
	N	%	β*	95% CI	β*	95% CI	β*	95% CI	β*	95% CI
Hostility										
1 low (reference)	822	26.3	1		1		1		1	
2 mid-low	806	25.8	-0.13	-0.32, 0.06	0.02	-0.16, 0.20	0.02	-0.16, 0.20	0.03	-0.15, 0.21
3 mid-high	745	23.8	-0.27	-0.47, -0.07	0.01	-0.18, 0.20	0.01	-0.18, 0.20	0.04	-0.15, 0.23
4 high	753	24.1	-0.57	-0.77, -0.37	-0.16	-0.35, 0.03	-0.15	-0.35, 0.04	-0.11	-0.30, 0.08
Effortful coping										
1 low (reference)	882	28.2	1		1		1		1	
2 mid-low	822	24.3	0.03	-0.16, 0.22	-0.05	-0.23, 0.13	-0.05	-0.23, 0.13	-0.06	-0.24, 0.12
3 mid-high	775	26.8	0.11	-0.08, 0.30	0.01	-0.16, 0.19	0.01	-0.17, 0.18	0.01	-0.16, 0.19
4 high	647	20.7	-0.21	-0.42, -0.01	-0.29	-0.48, -0.10	-0.29	-0.49, -0.10	-0.30	-0.49, -0.11

Abbreviations: CARDIA, Coronary Artery Risk Development in Young Adults; CI, Confidence Intervals.

*Linear regression coefficients (95% confidence intervals) representing difference in cognitive function (expressed in SD units) by personality trait score compared to lowest level.

Model 1 is adjusted for age, race and sex

Model 2 is further adjusted for depression at 2010 and educational achievement

Model 3 is further adjusted for lifelong scores of depressive symptomatology, and discrimination

Model 4 is further adjusted for smoking habit and alcohol consumption at year 25 and for lifelong scores of cardiovascular risk factors.

All models are adjusted for 'mirror-tracing star' test score obtained at year 2 (1987) asking participants to draw star diagrams within narrow boundary while looking at their hands only as a reflection in a mirror (**e-Figure 1**).

CVRF scores include scores of: obesity, high BP, diabetes, calculated as the sum of dichotomous (1/0) variables at each of the eight CARDIA follow-ups from 1985 to 2010.

Scores for depression are based on positive depressive symptomatology (CES-D score≥16) (1/0) at follow-ups 7, 15, 20 and 25. Discrimination scores are based on measures at follow-ups 7, 15 and 25.

Table e-2 Association of hostility (A) and effortful coping (B) (Year 0, 1985-86) with cognitive function in mid-life (Year 25, 2010-11). Comparisons Between Un-weighted and Weighted Models (Using IPCW); the CARDIA Study (n=3,126).

A. Hostility

Quartiles			Model 1		Model 2		Model 3		Model 4	
	N	%	β*	95% CI	β*	95% CI	β*	95% CI	β*	95% CI
Main models										
1 low (reference)	822	26.3	1		1		1		1	
2 mid-low	806	25.8	-0.13	-0.31, 0.06	0.01	-0.16, 0.19	0.01	-0.16, 0.19	0.02	-0.15, 0.20
3 mid-high	745	23.8	-0.34	-0.53, -0.15	-0.05	-0.23, 0.13	-0.05	-0.23, 0.13	-0.02	-0.20, 0.16
4 high	753	24.1	-0.66	-0.85, -0.47	-0.22	-0.40, -0.03	-0.21	-0.39, -0.02	-0.16	-0.35, 0.02
Weighted models (IPCW)										
1 low (reference)	822	26.3	1		1		1		1	
2 mid-low	806	25.8	-0.15	-0.33, 0.04	-0.02	-0.2, 0.16	-0.02	-0.19, 0.16	-0.01	-0.19, 0.16
3 mid-high	745	23.8	-0.30	-0.49, -0.11	-0.05	-0.23, 0.14	-0.04	-0.22, 0.15	-0.01	-0.20, 0.17
4 high	753	24.1	-0.56	-0.76, -0.35	-0.18	-0.38, 0.02	-0.16	-0.37, 0.04	-0.12	-0.33, 0.08

B. Effortful Coping

Quartiles			Model 1		Model 2		Model 3		Model 4	
	N	%	β*	95% CI	β*	95% CI	β*	95% CI	β*	95% CI
Main models										
1 low (reference)	882	28.2	1		1		1		1	
2 mid-low	822	24.3	0.05	-0.14, 0.23	-0.04	-0.21, 0.13	-0.05	-0.22, 0.13	-0.06	-0.23, 0.11
3 mid-high	775	26.8	0.12	-0.06, 0.30	0.02	-0.15, 0.19	0.01	-0.16, 0.18	0.02	-0.15, 0.19
4 high	647	20.7	-0.23	-0.42, -0.03	-0.30	-0.48, -0.12	-0.30	-0.48, -0.12	-0.30	-0.48, -0.12
Weighted models (IPCW)										
1 low (reference)	882	28.2	1		1		1		1	
2 mid-low	822	24.3	-0.01	-0.2, 0.18	-0.07	-0.25, 0.11	-0.08	-0.26, 0.10	-0.09	-0.27, 0.09
3 mid-high	775	26.8	0.11	-0.08, 0.30	0.01	-0.17, 0.19	0.00	-0.18, 0.18	0.00	-0.18, 0.19
4 high	647	20.7	-0.16	-0.37, 0.04	-0.24	-0.44, -0.05	-0.25	-0.44, -0.06	-0.25	-0.45, -0.06

Abbreviations: CARDIA, Coronary Artery Risk Development in Young Adults; CI, Confidence Intervals; IPCW, inverse-probability censoring weights.

*Linear regression coefficients (95% confidence intervals) representing difference in cognitive function (expressed in SD units) by personality trait score compared to lowest level.

Model 1 is adjusted for age, race and sex

Model 2 is further adjusted for depression at 2010 and educational achievement

Model 3 is further adjusted for lifelong scores of depressive symptomatology, and discrimination

Model 4 is further adjusted for smoking habit and alcohol consumption at year 25 and for lifelong scores of cardiovascular risk factors.

CVRF scores include scores of: obesity, high BP, diabetes, calculated as the sum of dichotomous (1/0) variables at each of the eight CARDIA follow-ups from 1985 to 2010. Scores for depression are based on positive depressive symptomatology (CES-D score$\geq$16) (1/0) at follow-ups 7, 15, 20 and 25. Discrimination scores are based on measures at follow-ups 7, 15 and 25.