

Causal Claims Tables

Summary Statistics

Table 1: **Summary Statistics for NLSY Variables** Physical Health scale ranges from 10 to 70. Depression measure from CES-D, ranging from 0 to 24; Neuroticism and Conscientiousness derived from TIPI, ranging from 1 to 7; Education represents highest grade completed, ranging from 0 (none) to 20 (eight years of college or more); Income represents total net family income in 2014 dollars

Variable	Mean	Standard Deviation	Minimum	25th Percentile	50th Percentile	75th Percentile	Maximum	Number of Observations
Physical Health ⁱ	51.99	8.08	11.22	51.26	54.84	56.51	68.37	8,402
Physical Health ⁱⁱ	49.09	10.29	11.22	46.67	53.55	55.50	67.31	7,804
Depression ⁱⁱ	3.88	4.51	0.00	0.00	2.00	6.00	21.00	7,813
Neuroticism	2.90	1.39	1.00	2.00	3.00	4.00	7.00	6,969
Conscientiousness	5.73	1.32	1.00	5.00	6.00	7.00	7.00	6,966
Education ⁱⁱ	13.33	2.57	0.00	12.00	12.00	15.00	20.00	7,693
Income ⁱⁱ	68,487.81	85,978.38	-3.26	11,342.18	47,000.00	94,861.85	595,986.00	7,693

ⁱAs measured at age 40

ⁱⁱAs measured at age 50

Illustration 1: Does conscientiousness causally influence physical health?

OLS: Does Conscientiousness Causally Influence Physical Health (At Age 50)?

Characteristic	Beta	t-Statistic	95% CI	p-value
(Intercept)	-0.13	-3.72	-0.20, -0.06	<0.001
conscientiousness	0.06	2.93	0.02, 0.09	0.003
race	0.23	5.59	0.15, 0.31	<0.001

Characteristic	Beta	t-Statistic	95% CI	p-value
sex	0.16	3.95	0.08, 0.24	<0.001

Discordant: Does Conscientiousness Causally Influence Physical Health (At Age 50)?

Characteristic	Beta	t-Statistic	95% CI	p-value
(Intercept)	0.92	29.9	0.86, 1.0	<0.001
age_50_physical_health_mean	-0.85	-39.3	-0.90, -0.81	<0.001
conscientiousness_diff	0.01	1.26	-0.01, 0.04	0.2
conscientiousness_mean	0.05	2.45	0.01, 0.09	0.014
sex_1	0.02	0.504	-0.05, 0.08	0.6
race_1	-0.05	-1.49	-0.11, 0.02	0.14
sex_2	-0.07	-2.09	-0.13, 0.00	0.037

Illustration 2: Does conscientiousness causally influence mental health?

OLS: Does Conscientiousness Causally Influence Mental Health (Depression)?

Characteristic	Beta	t-Statistic	95% CI	p-value
(Intercept)	0.14	3.84	0.07, 0.21	<0.001
conscientiousness	-0.15	-7.26	-0.19, -0.11	<0.001
race	-0.12	-2.93	-0.21, -0.04	0.003
sex	-0.25	-6.00	-0.33, -0.17	<0.001

OLS: Does Conscientiousness Causally Influence Mental Health (Depression) with Income and Highest Grade Level (At Age 50) as Covariates?

Characteristic	Beta	t-Statistic	95% CI	p-value
(Intercept)	0.41	2.53	0.09, 0.73	0.011
conscientiousness	-0.13	-4.72	-0.18, -0.07	<0.001
race	-0.09	-1.65	-0.20, 0.02	0.10
highest_grade_at_age_50	-0.02	-1.79	-0.05, 0.00	0.073
sex	-0.17	-3.24	-0.28, -0.07	0.001

Characteristic	Beta	t-Statistic	95% CI	p-value
tnfi_at_age_50	0.00	-3.45	0.00, 0.00	<0.001

Discordant: Does Conscientiousness Causally Influence Mental Health (Depression)?

Characteristic	Beta	t-Statistic	95% CI	p-value
(Intercept)	1.0	32.5	0.90, 1.0	<0.001
depression_mean	0.83	40.1	0.79, 0.87	<0.001
conscientiousness_diff	-0.02	-2.16	-0.05, 0.00	0.031
conscientiousness_mean	0.04	2.05	0.00, 0.08	0.041
sex_1	-0.04	-1.33	-0.10, 0.02	0.2
race_1	-0.09	-3.12	-0.15, -0.03	0.002
sex_2	0.07	2.23	0.01, 0.13	0.026

Discordant: Does Conscientiousness Causally Influence Mental Health (Depression) with Income and Highest Grade Level (At Age 50) as Covariates?

Characteristic	Beta	t-Statistic	95% CI	p-value
(Intercept)	0.92	5.43	0.59, 1.3	<0.001
depression_mean	0.82	22.0	0.75, 0.89	<0.001
conscientiousness_diff	-0.02	-1.06	-0.06, 0.02	0.3
highest_grade_at_age_50_diff	0.00	0.432	-0.02, 0.02	0.7
tnfi_at_age_50_diff	0.00	-0.179	0.00, 0.00	0.9
conscientiousness_mean	0.00	0.055	-0.07, 0.07	>0.9
highest_grade_at_age_50_mean	0.00	0.100	-0.02, 0.03	>0.9
tnfi_at_age_50_mean	0.00	0.648	0.00, 0.00	0.5
sex_1	-0.10	-2.06	-0.20, 0.00	0.040
race_1	-0.06	-1.19	-0.16, 0.04	0.2
sex_2	0.04	0.870	-0.05, 0.14	0.4

Illustration 3 Does neuroticism causally influence mental health?

OLS: Does Neuroticism Causally Influence Mental Health (Depression)?

Characteristic	Beta	t-Statistic	95% CI	p-value
(Intercept)	0.14	3.86	0.07, 0.21	<0.001
neuroticism	0.19	8.86	0.14, 0.23	<0.001
race	-0.14	-3.24	-0.22, -0.05	0.001
sex	-0.23	-5.41	-0.31, -0.14	<0.001

OLS: Does Neuroticism Causally Influence Mental Health (Depression) with Income and Highest Grade Level (At Age 50) as Covariates?

Characteristic	Beta	t-Statistic	95% CI	p-value
(Intercept)	0.40	2.43	0.08, 0.72	0.015
neuroticism	0.15	5.63	0.10, 0.21	<0.001
race	-0.11	-2.05	-0.22, 0.00	0.041
highest_grade_at_age_50	-0.02	-1.57	-0.04, 0.00	0.12
sex	-0.15	-2.83	-0.26, -0.05	0.005
tnfi_at_age_50	0.00	-3.88	0.00, 0.00	<0.001

Discordant: Does Neuroticism Causally Influence Mental Health (Depression)?

Characteristic	Beta	t-Statistic	95% CI	p-value
(Intercept)	0.94	31.9	0.88, 1.0	<0.001
depression_mean	0.83	39.1	0.79, 0.87	<0.001
neuroticism_diff	0.05	4.45	0.03, 0.07	<0.001
neuroticism_mean	-0.03	-1.41	-0.07, 0.01	0.2
sex_1	-0.03	-0.941	-0.09, 0.03	0.3
race_1	-0.09	-3.08	-0.15, -0.03	0.002
sex_2	0.06	1.88	0.00, 0.11	0.060

Discordant: Does Neuroticism Causally Influence Mental Health (Depression) with Income and Highest Grade Level (At Age 50) as Covariates?

Characteristic	Beta	t-Statistic	95% CI	p-value
(Intercept)	0.88	5.18	0.55, 1.2	<0.001
depression_mean	0.81	21.9	0.74, 0.88	<0.001
neuroticism_diff	0.06	3.40	0.03, 0.10	<0.001

Characteristic	Beta	t-Statistic	95% CI	p-value
highest_grade_at_age_50_diff	0.00	-0.361	-0.02, 0.02	0.7
tnfi_at_age_50_diff	0.00	-0.698	0.00, 0.00	0.5
neuroticism_mean	-0.01	-0.230	-0.08, 0.06	0.8
highest_grade_at_age_50_mean	0.00	0.265	-0.02, 0.03	0.8
tnfi_at_age_50_mean	0.00	0.706	0.00, 0.00	0.5
sex_1	-0.12	-2.53	-0.22, -0.03	0.012
race_1	-0.06	-1.25	-0.16, 0.04	0.2
sex_2	0.07	1.35	-0.03, 0.16	0.2