

Table S1 Summary results of the mediation analysis

Path	Effect	SE	LLCI	LLUI
Total Effects	0.250	0.200	0.210	0.280
Direct Effects	0.100	0.020	0.070	0.130
Total Indirect Effects	0.150	0.010	0.120	0.170
Neuroticism-Loneliness-Depression	0.124	0.011	0.101	0.146
Neuroticism-PIU-Depression	0.007	0.004	0.000	0.015
Neuroticism-Loneliness-PIU-Depression	0.018	0.003	0.013	0.024
Total Effects	-0.130	0.020	-0.168	-0.900
Direct Effects	-0.070	0.020	-0.100	-0.040
Indirect Effects	-0.060	0.010	-0.080	-0.040
Agreeableness-Loneliness-Depression	-0.045	0.010	-0.066	-0.025
Agreeableness-PIU-Depression	-0.008	0.004	-0.016	-0.001
Agreeableness-Loneliness-PIU-Depression	-0.006	0.002	-0.010	-0.004
Total Effects	-0.060	0.020	-0.100	-0.200
Direct Effects	-0.004	0.020	-0.040	0.030
Indirect Effects	-0.060	0.010	-0.080	-0.030

Extraversion-Loneliness-Depression	-0.057	0.011	-0.079	-0.037
Extraversion-PIU-Depression	0.008	0.004	0.001	0.016
Extraversion-Loneliness-PIU-Depression	-0.008	0.002	-0.012	-0.005
Total Effects	-0.230	0.020	-0.270	-0.200
Direct Effects	-0.090	0.020	-0.120	-0.050
Indirect Effects	-0.140	0.010	-0.170	-0.120
Conscientiousness-Loneliness-Depression	-0.098	0.010	-0.118	-0.078
Conscientiousness-PIU-Depression	-0.032	0.005	-0.043	-0.023
Conscientiousness-Loneliness-PIU-Depression	-0.014	0.002	-0.019	-0.010
Total Effects	0.030	0.020	-0.010	0.070
Direct Effects	-0.030	0.020	-0.070	-0.002
Indirect Effects	0.070	0.010	0.040	0.090
Openness-Loneliness-Depression	0.054	0.010	0.035	0.073
Openness-PIU-Depression	0.004	0.004	-0.003	0.012
Openness-Loneliness-PIU-Depression	0.008	0.002	0.005	0.012

Note. SE: standard error; LLCI and ULCI: lower level and upper level of the bias-corrected 95% bootstrap confidence interval