



Article

Personality Traits and Physical Activity: Insights from German University Students

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Table S1. Pearson correlation coefficients for the association between personality traits and physical activity variables derived from IPAQ-SF

	Extraversion	Negative Emotionality	Agreeableness	Conscientiousness	Open-Mindedness	vPA	mPA	walk
Extraversion	1							
Negative Emotionality	-0.33 ***	1						
Agreeableness	0.14 ***	-0.24 ***	1					
Conscientiousness	0.24 ***	-0.22 ***	0.19 ***	1				
Open-Mindedness	0.22 ***	-0.15 ***	0.08 ***	0.06 ***	1			
vPA	0.18 ***	-0.14 ***	0.01	0.08 ***	-0.03	1		
mPA	0.16 ***	-0.09 ***	0.05 ***	0.08 ***	0.04	0.28 ***	1	
walk	0.04 *	-0.01	0.02	0.03	0.07 ***	0.02	0.20 ***	1

*** indicates $p < 0.001$, ** indicates $p < 0.01$, * indicates $p < 0.05$; vPA = vigorous physical activity, mPA = moderate physical activity

Table S2. Association between personality traits and self-reported vigorous physical activity after controlling for covariates

Variable	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
	B	β	B	β	B	β	B	β	B	β	B	β	B	β
Intercept	-124.5		-768.6		360.9		-46.5		-351.3		149.7		-16.6	
Self-rated Health	267.5	0.17 ***	213.8	0.14 ***	229.7	0.15 ***	269.1	0.17 ***	255.9	0.16 ***	269.0	0.17 ***	195.1	0.12 ***
Fruit and Vegetable Intake	229.1	0.11 ***	203.2	0.10 ***	222.6	0.11 ***	230.2	0.11 ***	223.8	0.11 ***	243.4	0.12 ***	221.9	0.11 ***
Sex (f=0, m=1)	232.0	0.08 ***	269.6	0.09 ***	195.6	0.07 ***	225.7	0.08 ***	248.9	0.09 ***	240.5	0.08 ***	261.6	0.09 ***
Age	-12.5	-0.04 *	-9.8	-0.03	-13.1	-0.04 *	-12.7	-0.04 *	-12.5	-0.04 *	-11.7	-0.04 *	-8.0	-0.02
Income	-37.3	-0.04 *	-57.3	-0.05 *	-40.1	-0.04 *	-38.0	-0.04 *	-38.9	-0.04 *	-34.7	-0.03	-57.3	-0.05 **
Extraversion			279.1	0.15 ***									301.1	0.16 ***
Negative Emotionality					-102.6	-0.06 ***							-49.5	-0.03
Agreeableness							-20.8	-0.01					-57.3	-0.03
Conscientiousness									77.7	0.04 *			28.1	0.01
Open-Mindedness											-97.6	-0.05 **	-163.6	-0.09 ***

Model 1 examines the effect of the covariate set on self-reported vigorous physical activity, Models 2 to 6 add a single personality trait to Model 1 (Model 2 = Extraversion, Model 3 = Negative Emotionality, Model 4 = Agreeableness, Model 5 = Conscientiousness, Model 6 = Open-Mindedness); Model 7 adds all personality traits to Model 1. *** indicates $p < 0.001$, ** indicates $p < 0.01$, * indicates $p < 0.05$

Table S3. Association between personality traits and self-reported moderate physical activity after controlling for covariates

Variable	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
	B	β	B	β	B	β	B	β	B	β	B	β	B	β
Intercept	87.8		-144.8		291.5		-38.5		-81.8		8.2		-184.2	
Fruit and Vegetable Intake	83.2	0.08 ***	67.3	0.06 ***	82.9	0.08 ***	80.5	0.07 ***	77.6	0.07 ***	80.1	0.07 ***	64.4	0.06 ***
Self-Esteem	49.6	0.07 ***	19.3	0.03	32.9	0.04 *	46.9	0.06 ***	41.6	0.06 **	47.4	0.06 ***	9.0	0.01
Alcohol Use	15.7	0.05 **	7.0	0.02	15.1	0.05 **	16.3	0.05 **	18.7	0.06 ***	16.1	0.05 **	9.3	0.03
Subjective Health	39.3	0.05 *	32.9	0.04 *	33.6	0.04 *	37.6	0.05 *	35.0	0.04 *	40.2	0.05 *	27.8	0.03
Extraversion			134.8	0.13 ***									124.5	0.12 ***
Negative Emotionality					-42.1	-0.05 *							-17.9	-0.02
Agreeableness							38.5	0.03 *					17.1	0.01
Conscientiousness									60.4	0.06 ***			32.5	0.03
Open-Mindedness											25.6	0.02	-1.2	0

Model 1 examines the effect of the covariate set on moderate physical activity, Models 2 to 6 add a single personality trait to Model 1 (Model 2 = Extraversion, Model 3 = Negative Emotionality, Model 4 = Agreeableness, Model 5 = Conscientiousness, Model 6 = Open-Mindedness); Model 7 adds all personality traits to Model 1. *** indicates $p < 0.001$, ** indicates $p < 0.01$, * indicates $p < 0.05$

Table S4. Association between personality traits and self-reported walking after controlling for covariates

Variable	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
	B	β	B	β	B	β	B	β	B	β	B	β	B	β
Intercept	232.9		1.2		287.2		173.1		81.8		46.8		-187.7	
Age	21.7	0.11 ***	22.7	0.12 ***	21.7	0.11 ***	21.9	0.11 ***	22.1	0.11 ***	21.3	0.11 ***	22.3	0.11 ***
Fruit and Vegetable Intake	71.7	0.06 ***	60.7	0.05 **	71.1	0.06 ***	70.5	0.06 ***	67.6	0.06 ***	63.9	0.05 **	54.8	0.04 **
Alcohol Use	-21.3	-0.06 ***	-26.7	-0.07 ***	-21.6	-0.06 ***	-21.1	-0.06 ***	-19.0	-0.05 **	-20.3	-0.05 ***	-23.6	-0.06 ***
Sleep Quality	20.9	0.06 **	23.1	0.06 ***	22.4	0.06 **	21.0	0.06 **	22.5	0.06 ***	20.8	0.06 **	23.2	0.06 ***
Irritation	-33.3	-0.06 **	-29.3	-0.05 **	-26.3	-0.04 *	-32.1	-0.05 **	-34.2	-0.06 **	-30.9	-0.05 **	-30.8	-0.05 *
Income	-27.0	-0.04 *	-31.9	-0.05 **	-27.1	-0.04 *	-26.4	-0.04 *	-27.5	-0.04 *	-28.8	-0.05 *	-33.0	-0.05 **
Self-rated Health	-35.4	-0.04 *	-47.4	-0.05 **	-39.4	-0.04 *	-35.7	-0.04 *	-41.3	-0.04 *	-35.2	-0.04 *	-47.9	-0.05 **
Extraversion			90.1	0.08 ***									75.2	0.07 **
Negative Emotionality					-24.5	-0.02							6.5	0.01
Agreeableness							13.8	0.01					-4.2	0
Conscientiousness									45.5	0.04 *			28.9	0.02
Open-Mindedness											58.5	0.05 **	43.0	0.04 *

Model 1 examines the effect of the covariate set on self-reported walking, Models 2 to 6 add a single personality trait to Model 1 (Model 2 = Extraversion, Model 3 = Negative Emotionality, Model 4 = Agreeableness, Model 5 = Conscientiousness, Model 6 = Open-Mindedness); Model 7 adds all personality traits to Model 1. *** indicates $p < 0.001$, ** indicates $p < 0.01$, * indicates $p < 0.05$

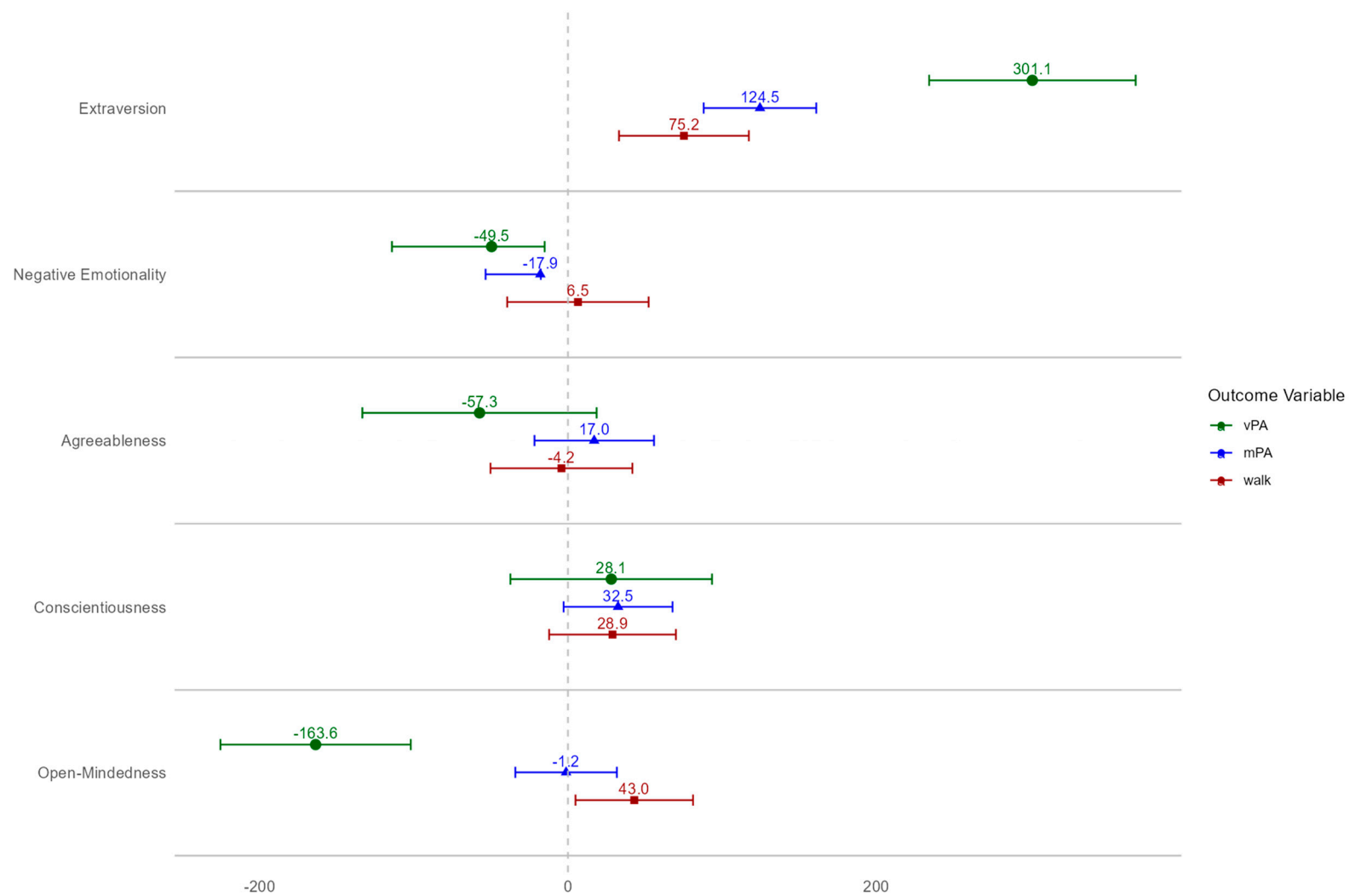


Figure S1. Association between personality traits and physical activity intensity variables (vPA = vigorous physical activity, mPA = moderate physical activity); Bars represent unstandardized regression coefficient and corresponding 95% confidence intervals for adjusted models (covariates: compare tables S2 – S4) in MET per week