

Supplementary material

Component loadings of the items measuring the perceived benefits of and barriers to exercise behavior on the 6 extracted components revealed with PCA (oblimin rotation).

Item	Component:	1	2	3	4	5	6
<i>Benefits</i>							
a. Exercise improves the way my body looks.		-.04	.73	.06	-.04	.12	.05
b. I feel better when I exercise regularly.		-.01	.81	.00	-.06	-.08	-.07
c. Exercising gives me more energy.		.00	.83	.03	-.03	-.03	-.07
d. Exercising gives me a sense of accomplishment.		.03	.73	-.01	.04	-.10	.05
e. Exercise keeps my mind active.		.04	.79	-.00	.02	-.10	-.01
f. Exercise is good for my heart.		-.01	.79	.00	-.04	.15	.02
g. Exercise lifts my spirits.		.03	.83	-.02	-.04	-.09	-.05
h. I exercise to keep healthy.		-.05	.63	-.02	.00	.19	.13
i. Exercise decreases feelings of stress and tension.		.02	.75	-.03	-.02	-.12	-.07
j. Exercising is a way to meet new people.		.03	.55	-.05	.14	-.05	.05
<i>Barriers</i>							
a. I am insecure about my appearance when I am active.		.00	.06	.05	-.08	.07	.67
b. I am not interested in physical activity.		.13	-.17	.01	-.31	.51	.13
c. I do not have self-discipline or will-power.		.12	.05	-.04	.55	.30	.02
d. I do not have the time for it.		.03	-.00	.56	-.35	.12	-.24
e. I do not have the energy for it.		-.05	-.01	.10	-.85	.00	.01
f. I do not have anybody to exercise with.		.48	.02	.04	-.21	.14	-.07
g. I do not enjoy exercise or physical activity.		.25	-.18	.00	-.17	.55	.20

h. I do not want to fail, so I do not try it.	.48	.02	-.05	.05	.04	.35
i. I do not have the required materials for exercising.	.83	-.01	.04	.15	-.00	.01
j. I often think that the weather is too bad.	.67	.02	.03	-.15	-.01	-.25
k. I do not have enough skills as a sportsman or woman.	.61	-.06	.01	-.04	.17	.20
l. I am too tired to exercise.	-.02	-.02	.11	-.80	-.06	.04
m. I do not have enough knowledge on how to exercise.	.70	-.04	-.00	.02	-.01	.14
n. I have a poor health.	.11	-.05	-.05	-.45	-.37	.37
o. I am scared of injuries.	.34	-.04	-.03	-.18	-.44	.26
p. I think moving is too heavy.	.16	-.04	-.04	-.41	-.05	.42
q. I do not have easily accessible facilities in the area.	.60	.00	.08	.03	-.08	-.05
r. I am too fat.	-.02	-.00	.16	-.01	.02	.76
s. I think exercising is boring.	.24	-.15	.07	-.09	.52	.27
t. I have obligations at work.	.06	-.00	.83	.03	-.01	-.02
u. I have social obligations.	.02	.01	.89	.02	-.02	.09
v. I have obligations in my family.	.01	-.03	.85	.05	-.07	.14
w. I think exercising is too expensive.	.40	-.04	.17	-.08	.11	.11

Note: Component loadings in bold were selected for a component (threshold = .4).

Bivariate model fitting results, separately for the 6 attitude components.

Attitude component	Model	Vs.	-2LL	df	X²	Δdf	p
Benefits	1. ACE model		23940.99	10085			
	2. AE model	1	23941.89	10090	0.9	5	.97
	3. AE model, m=f	2	23988.76	10096	46.87	6	0
Lack of skills, support and/or resources*	1. ACE model		25440.84	10033			
	2. AE model	1	25444.83	10038	3.98	5	.55
	3. AE model, m=f	2	25500.31	10044	55.49	6	0
Time Constraints	1. ACE model		29982.4	10035			
	2. AE model	1	29984.53	10040	2.13	5	.83
	3. AE model, m=f	2	30010.65	10046	26.12	6	0
Lack of energy	1. ACE model		26867.46	10034			
	2. AE model	1	26870.3	10039	2.84	5	.72
	3. AE model, m=f	2	26932.22	10045	61.92	6	0
Lack of enjoyment*	1. ACE model		27324.1	10038			
	2. AE model	1	27325.39	10043	1.29	5	.94
	3. AE model, m=f	2	27357.88	10049	32.49	6	0
Embarrassment*	1. ACE model		26910.59	10000			
	2. AE model	1	26919.89	10005	9.3	5	.1
	3. AE model, m=f	2	27160.99	10011	241.1	6	0

Note: -2LL = -2 log likelihood; df = degrees of freedom; X² = chi-square test statistic; Δdf = degrees of freedom of X² test; p = p-value. Most parsimonious models are printed in boldface type. The genetic within-trait DOS correlation is freely estimated for exercise behavior and for the attitude components that are marked with an asterisk.