

SUPPLEMENTARY MATERIAL

Trajectories and Determinants of Physical Activity during Covid-19 Pandemic: A Population-Based Study of Middle-Aged and Elderly Individuals in The Netherlands

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Supplementary material

Supplemental Table S1. Descriptive information on physical activity of each time point.

	(Moderate-to-Vigorous) Physical Activity during the Past 14 Days		
	Time Point 1	Time Point 2	Time Point 3
	N(%)	N(%)	N(%)
Less than 50 minutes	1323 (22.9%)	689 (14.2%)	545 (11.8%)
50–100 minutes	1234 (21.4%)	798 (16.5%)	741 (16.0%)
100–150 minutes	877 (15.2%)	614 (12.7%)	593 (12.8%)
150–180 minutes	670 (11.6%)	547 (11.3%)	533 (11.5%)
More than 180 minutes	1673 (29.0%)	2190 (45.3%)	2211 (47.8%)
Total	5777 (100.0%)	4838 (100.0%)	4623 (100.0%)

Question asked at each time point: “During the past 14 days, how many minutes did you exercise (moderately) intensively in total (walking, cycling, running)?”

Supplemental Table S2. Study sample characteristics per latent class trajectory of physical activity.

	‘Steadily High’ (N = 1837)	‘Increaseers’ (N = 287)	‘Steadily Medium’ (N = 1277)	‘Steadily Low’ (N = 1590)	‘Steadily very Low’ (N = 786)
	Median (IQR)/N(%)	Median (IQR)/N(%)	Median (IQR)/N(%)	Median (IQR)/N(%)	Median (IQR)/N(%)
Demographics					
Sex (female)	1006 (54.8%)	154 (53.7%)	743 (58.2%)	956 (60.1%)	492 (62.6%)
Age <i>mean</i> (SD)	66.6 (10.1)	66.2 (10.5)	69.2 (11.3)	71.2 (11.8)	73.9 (12.2)
Educational level					
Primary	68 (3.7%)	21 (7.3%)	67 (5.2%)	108 (6.8%)	91 (11.6%)
Lower	503 (27.4%)	71 (24.7%)	435 (34.1%)	570 (35.8%)	325 (41.3%)
Further/intermediate	587 (32.0%)	94 (32.8%)	421 (33.0%)	529 (33.3%)	229 (29.1%)
Higher	668 (36.4%)	97 (33.8%)	339 (26.5%)	366 (23.0%)	134 (17.0%)
Occupational status					
Employed	645 (35.1%)	101 (35.2%)	357 (28.0%)	366 (23.0%)	142 (18.1%)
Retired	1015 (55.3%)	147 (51.2%)	780 (61.1%)	1012 (63.6%)	521 (66.3%)
Unemployed	47 (2.6%)	15 (5.2%)	34 (2.7%)	49 (3.1%)	22 (2.8%)
Physical health					
Self-perceived health					
Poor/fair	110 (6.0%)	28 (9.8%)	129 (10.1%)	273 (17.2%)	260 (33.1%)
Good	980 (53.3%)	177 (61.7%)	753 (59.0%)	970 (61.0%)	405 (51.5%)
Very good/excellent	726 (39.5%)	79 (27.5%)	378 (29.6%)	312 (19.6%)	103 (13.1%)
Psychosocial health					
Depressive symptoms (CES-D)	3.00 (1.00–6.00)	4.00 (1.00–8.00)	4.00 (2.00–8.00)	5.00 (2.00–8.00)	6.00 (3.00–10.00)
Anxiety symptoms (HADS)	2.00 (1.00–5.00)	2.00 (1.00–5.00)	3.00 (1.00–5.00)	3.00 (1.00–5.00)	4.00 (1.00–6.00)
Worries about the pandemic (scale 0–10)	5.00 (3.00–7.00)	5.00 (3.00–7.00)	5.00 (3.00–7.00)	5.00 (3.00–7.00)	5.00 (3.00–7.00)
Lifestyle					
Diet compared to prior					
(Much) less healthy	62 (3.4%)	17 (5.9%)	48 (3.8%)	78 (4.9%)	60 (7.6%)
As healthy	1619 (88.1%)	246 (85.7%)	1110 (86.9%)	1390 (87.4%)	666 (84.7%)
(Much) more healthy	150 (8.2%)	24 (8.4%)	112 (8.8%)	109 (6.9%)	54 (6.9%)
Smoking	158 (8.6%)	27 (9.4%)	138 (10.8%)	154 (9.7%)	118 (15.0%)
Alcohol (glasses/day)	1.00 (0.00–2.00)	1.00 (0.00–2.00)	1.00 (0.00–2.00)	1.00 (0.00–1.00)	0.00 (0.00–1.00)
Physical activity (Moderate-to-vigorous, past 14 days)					
Less than 50 minutes	0 (0.0%)	94 (32.8%)	0 (0.0%)	479 (30.1%)	750 (95.4%)
50–100 minutes	0 (0.0%)	193 (67.2%)	143 (11.2%)	862 (54.2%)	36 (4.6%)
100–150 minutes	179 (9.7%)	0 (0.0%)	508 (39.8%)	190 (11.9%)	0 (0.0%)
150–180 minutes	305 (16.6%)	0 (0.0%)	316 (24.7%)	49 (3.1%)	0 (0.0%)
More than 180 minutes	1353 (73.7%)	0 (0.0%)	310 (24.3%)	10 (0.6%)	0 (0.0%)

Data are presented as median(IQR) or N(%) unless otherwise indicated, and shown for non-imputed data. Missing data was low (<3%, except for worries about coronacrisis (4.3%) and occupational status (9.1%). IQR = Interquartile Range, SD = Standard Deviation, CES-D = Center for Epidemiologic Studies Depression, HADS = Hospital Anxiety and Depression scale.

Supplemental Table S3. Multivariate adjusted associations of potential determinants for the ‘increasers’ trajectory.

	‘Steadily Low’ (N = 1590)	‘Increases’ (N = 287)
		OR (95%CI)
Demographics		
Sex (ref = male)		
Female	ref	0.79 (0.60–1.03)
Age (per 10 years)	ref	0.62 (0.51–0.75) *
Educational level (ref = higher)		
Primary	ref	0.97 (0.57–1.65)
Lower	ref	0.62 (0.44–0.88) *
Further/intermediate	ref	0.76 (0.55–1.04)
Occupational status (ref = employed)		
Unemployed	ref	1.56 (0.84–2.91)
Retired	ref	1.50 (0.96–2.36)
Physical health		
Self-perceived health (ref = very good/excellent)	ref	0.50 (0.30–0.84) *
Poor/fair	ref	0.83 (0.61–1.13)
Good		
Psychosocial health		
Depressive symptoms	ref	0.98 (0.94–1.03)
Anxiety symptoms	ref	1.00 (0.94–1.07)
Worries about the pandemic (scale 0–10)	ref	1.04 (0.97–1.10)
Lifestyle		
Diet compared to prior (ref = as healthy)		
(Much) less healthy	ref	1.05 (0.60–1.83)
(Much) more healthy	ref	1.07 (0.67–1.72)
Smoking	ref	0.79 (0.51–1.23)
Alcohol (glass/day)	ref	1.07 (0.97–1.19)

OR = Odds Ratio, CI = Confidence Interval, ref = reference, CES-D = Center for Epidemiologic Studies Depression, HADS = Hospital Anxiety and Depression scale.