

Supplementary4. Results of subgroup analysis stratified by independent variables

	Male				Female			
	Depressive symptoms (PHQ-9)							
	Work- related Physical Activity							
	No	Yes			No	Yes		
	β	β	S.E	P for interaction	β	β	S.E	P for interaction
Leisure Physical Activity								
No	Ref.	0.880	0.181	0.236	Ref.	1.331	0.250	0.259
Yes	Ref.	0.697	0.159		Ref.	1.157	0.351	
Age								
19-29	Ref.	0.608	0.299	0.967	Ref.	0.908	0.385	<.0001
30-39	Ref.	0.944	0.240		Ref.	1.727	0.401	
40-49	Ref.	0.711	0.233		Ref.	0.773	0.342	
50-59	Ref.	0.841	0.216		Ref.	0.482	0.467	
60≤	Ref.	0.777	0.274		Ref.	3.866	0.799	
Region								
Urban	Ref.	0.773	0.192	0.986	Ref.	1.354	0.319	0.746
Rural	Ref.	0.791	0.157		Ref.	1.275	0.260	
Education								
Under middle school	Ref.	0.959	0.347	0.637	Ref.	2.794	0.598	<.0001
High school	Ref.	0.728	0.188		Ref.	0.822	0.393	
University and over	Ref.	0.777	0.168		Ref.	1.071	0.230	
Marital state								
Married	Ref.	0.860	0.142	0.151	Ref.	1.236	0.237	0.548
Single	Ref.	0.630	0.241		Ref.	1.419	0.407	
Job								
White collar	Ref.	0.832	0.219	0.841	Ref.	0.907	0.262	0.025
Pink collar	Ref.	0.691	0.288		Ref.	1.693	0.456	
Blue collar	Ref.	0.798	0.171		Ref.	1.649	0.400	
Average working hours /week								
low(>40)	Ref.	0.713	0.187	0.019	Ref.	1.202	0.266	0.209
average(41-52)	Ref.	0.572	0.198		Ref.	1.695	0.392	
over(<52)	Ref.	1.123	0.240		Ref.	1.102	0.576	
Income								
Low	Ref.	0.960	0.277	0.083	Ref.	1.562	0.485	0.007
Middle	Ref.	0.563	0.140		Ref.	1.582	0.280	
High	Ref.	1.097	0.299		Ref.	0.436	0.330	
BMI								
Low	Ref.	-0.510	0.883	0.016	Ref.	1.067	0.658	0.305
Middle	Ref.	1.141	0.214		Ref.	1.161	0.250	
High	Ref.	0.595	0.144		Ref.	1.713	0.393	
Smoking								
Yes	Ref.	0.710	0.139	0.315	Ref.	1.107	0.189	<.0001
No	Ref.	0.871	0.209		Ref.	3.535	1.256	
Drinking								
Yes	Ref.	0.976	0.709	0.586	Ref.	1.558	0.612	0.719
No	Ref.	0.791	0.124		Ref.	1.288	0.218	
Stress Recognition Level								
Low	Ref.	0.190	0.165	0.001	Ref.	0.523	0.652	<.0001
Middle	Ref.	0.677	0.130		Ref.	0.555	0.188	
High	Ref.	1.247	0.305		Ref.	2.300	0.395	
Year								
2014	Ref.	0.917	0.222	0.553	Ref.	0.700	0.277	0.000
2016	Ref.	0.875	0.284		Ref.	1.887	0.481	
2018	Ref.	0.804	0.223		Ref.	2.060	0.506	
2020	Ref.	0.611	0.242		Ref.	1.139	0.446	

BMI body mass index;

 1) Low <18.5kg/m²; Middle: 18.5–23kg/m²; High, ≥ 23 kg/m²