

COVID-19 Era		Exercise Frequency	Margin	Standard Error	z	P> z	[95% confidence Interval]	
Moderate Mental Distress	Before COVID-19	$x < 2$ times a week	0.247	0.027	9.230	0.000	0.195	0.299
		$2 \leq x < 4$ times a week	0.212	0.029	7.190	0.000	0.154	0.270
		$x \geq 4$ times a week	0.241	0.030	7.960	0.000	0.182	0.301
	During COVID-19	$x < 2$ times a week	0.262	0.019	14.180	0.000	0.226	0.299
		$2 \leq x < 4$ times a week	0.252	0.018	14.070	0.000	0.217	0.287
		$x \geq 4$ times a week	0.219	0.019	11.310	0.000	0.181	0.257
	Late COVID-19	$x < 2$ times a week	0.244	0.026	9.260	0.000	0.192	0.295
		$2 \leq x < 4$ times a week	0.236	0.027	8.880	0.000	0.184	0.288
		$x \geq 4$ times a week	0.219	0.027	8.100	0.000	0.166	0.272
Severe Mental Distress	Before COVID-19	$x < 2$ times a week	0.231	0.058	3.980	0.000	0.117	0.344
		$2 \leq x < 4$ times a week	0.164	0.041	4.010	0.000	0.084	0.244
		$x \geq 4$ times a week	0.217	0.062	3.520	0.000	0.096	0.337
	During COVID-19	$x < 2$ times a week	0.282	0.034	8.370	0.000	0.216	0.348
		$2 \leq x < 4$ times a week	0.245	0.025	9.700	0.000	0.196	0.295
		$x \geq 4$ times a week	0.175	0.024	7.220	0.000	0.127	0.222
	Late COVID-19	$x < 2$ times a week	0.222	0.053	4.210	0.000	0.119	0.326
		$2 \leq x < 4$ times a week	0.205	0.047	4.330	0.000	0.112	0.298
		$x \geq 4$ times a week	0.175	0.040	4.410	0.000	0.097	0.252

Table S1: Predicted margins (probability), P-value, and 95% confidence interval of moderate and severe mental distress levels by exercise frequency and COVID-19 era in men. **Moderate exercise frequency before COVID-19, and high exercise frequency during and late COVID-19 are associated with the lowest probability to be in the moderate and severe mental distress levels. Low exercise frequency before, during, and late COVID-19 are associated with the highest probability to be in the moderate and severe mental distress levels.**

COVID-19 Era		Exercise Frequency	Margin	Standard Error	Z	P> z	[95% confidence Interval]	
Moderate Mental Health Disorder	Before COVID-19	$x < 2$ times a week	0.323	0.016	20.720	0.000	0.293	0.354
		$2 \leq x < 4$ times a week	0.313	0.015	20.270	0.000	0.283	0.344
		$x \geq 4$ times a week	0.332	0.020	16.580	0.000	0.293	0.371
	During COVID-19	$x < 2$ times a week	0.353	0.013	28.070	0.000	0.329	0.378
		$2 \leq x < 4$ times a week	0.356	0.013	28.250	0.000	0.331	0.381
		$x \geq 4$ times a week	0.321	0.023	14.160	0.000	0.276	0.365
	Late COVID-19	$x < 2$ times a week	0.349	0.015	23.400	0.000	0.320	0.379
		$2 \leq x < 4$ times a week	0.329	0.019	17.490	0.000	0.292	0.366
		$x \geq 4$ times a week	0.300	0.041	7.300	0.000	0.219	0.380
Severe Mental Health Disorder	Before COVID-19	$x < 2$ times a week	0.191	0.020	9.660	0.000	0.153	0.230
		$2 \leq x < 4$ times a week	0.176	0.019	9.140	0.000	0.138	0.213
		$x \geq 4$ times a week	0.207	0.036	5.720	0.000	0.136	0.278
	During COVID-19	$x < 2$ times a week	0.377	0.021	17.900	0.000	0.335	0.418
		$2 \leq x < 4$ times a week	0.294	0.021	14.080	0.000	0.253	0.334
		$x \geq 4$ times a week	0.497	0.052	9.520	0.000	0.395	0.600
	Late COVID-19	$x < 2$ times a week	0.256	0.032	7.920	0.000	0.193	0.320
		$2 \leq x < 4$ times a week	0.201	0.030	6.720	0.000	0.143	0.260
		$x \geq 4$ times a week	0.157	0.049	3.180	0.001	0.060	0.254

Table S2: Predicted margins (probability), P-value, and 95% confidence interval of moderate and severe mental distress levels by exercise frequency and COVID-19 era in Women. **Moderate exercise frequency before COVID-19, and high exercise frequency during and late COVID-19 are associated with the lowest probability to be in the moderate mental distress level, and moderate exercise frequency before, and during COVID-19, and high exercise frequency late COVID-19 are associated with the lowest probability to be in the severe mental distress level. High exercise frequency before COVID-19, and moderate exercise frequency during and late COVID-19 are associated with the highest probability to be in the moderate mental distress level, and High exercise frequency before and during COVID-19, and low exercise frequency in late COVID-19 era are associated with the highest probability to be in the severe mental distress levels.**

COVID-19 Era		Exercise Frequency	Margin	Standard Error	z	P> z	[95% confidence Interval]	
Moderate Mental Health Disorder	Before COVID-19	$x < 2$ times a week	0.304	0.015	20.090	0.000	0.274	0.334
		$2 \leq x < 4$ times a week	0.271	0.017	16.070	0.000	0.238	0.304
		$x \geq 4$ times a week	0.308	0.020	15.740	0.000	0.269	0.346
	During COVID-19	$x < 2$ times a week	0.334	0.011	29.380	0.000	0.311	0.356
		$2 \leq x < 4$ times a week	0.329	0.011	28.740	0.000	0.307	0.352
		$x \geq 4$ times a week	0.322	0.013	24.690	0.000	0.297	0.348
	Late COVID-19	$x < 2$ times a week	0.328	0.013	25.510	0.000	0.303	0.353
		$2 \leq x < 4$ times a week	0.304	0.016	18.550	0.000	0.272	0.336
		$x \geq 4$ times a week	0.276	0.025	11.240	0.000	0.228	0.324
Severe Mental Health Disorder	Before COVID-19	$x < 2$ times a week	0.205	0.023	8.940	0.000	0.160	0.250
		$2 \leq x < 4$ times a week	0.155	0.019	8.200	0.000	0.118	0.192
		$x \geq 4$ times a week	0.213	0.037	5.760	0.000	0.140	0.285
	During COVID-19	$x < 2$ times a week	0.348	0.021	16.960	0.000	0.308	0.389
		$2 \leq x < 4$ times a week	0.281	0.018	15.640	0.000	0.246	0.317
		$x \geq 4$ times a week	0.251	0.026	9.620	0.000	0.200	0.302
	Late COVID-19	$x < 2$ times a week	0.273	0.031	8.770	0.000	0.212	0.335
		$2 \leq x < 4$ times a week	0.205	0.026	7.790	0.000	0.154	0.257
		$x \geq 4$ times a week	0.162	0.030	5.330	0.000	0.102	0.222

Table S3: Predicted margins (probability), P-value, and 95% confidence interval of moderate and severe mental distress levels by exercise frequency and COVID-19 era during weekdays. **Moderate exercise frequency before COVID-19, and high exercise frequency during and late COVID-19 are associated with the lowest probability to be in the moderate and severe mental distress levels. High exercise frequency before COVID-19, and low exercise frequency during and late COVID-19 are associated with the highest probability to be in the moderate and severe mental distress levels.**

COVID-19 Era		Exercise Frequency	Margin	Standard Error	z	P> z	[95% confidence Interval]	
Moderate Mental Health Disorder	Before COVID-19	$x < 2$ times a week	0.267	0.027	10.060	0.000	0.215	0.319
		$2 \leq x < 4$ times a week	0.287	0.023	12.230	0.000	0.241	0.333
		$x \geq 4$ times a week	0.262	0.035	7.430	0.000	0.193	0.331
	During COVID-19	$x < 2$ times a week	0.297	0.023	12.880	0.000	0.252	0.342
		$2 \leq x < 4$ times a week	0.278	0.024	11.610	0.000	0.231	0.325
		$x \geq 4$ times a week	0.278	0.031	9.010	0.000	0.217	0.338
	Late COVID-19	$x < 2$ times a week	0.246	0.048	5.090	0.000	0.151	0.340
		$2 \leq x < 4$ times a week	0.210	0.074	2.840	0.005	0.065	0.355
		$x \geq 4$ times a week	0.049	0.094	0.530	0.599	-0.135	0.233
Severe Mental Health Disorder	Before COVID-19	$x < 2$ times a week	0.200	0.035	5.680	0.000	0.131	0.269
		$2 \leq x < 4$ times a week	0.251	0.039	6.360	0.000	0.173	0.328
		$x \geq 4$ times a week	0.190	0.057	3.310	0.001	0.077	0.302
	During COVID-19	$x < 2$ times a week	0.413	0.040	10.370	0.000	0.335	0.492
		$2 \leq x < 4$ times a week	0.225	0.036	6.180	0.000	0.153	0.296
		$x \geq 4$ times a week	0.224	0.061	3.680	0.000	0.105	0.343
	Late COVID-19	$x < 2$ times a week	0.164	0.064	2.550	0.011	0.038	0.289
		$2 \leq x < 4$ times a week	0.120	0.075	1.600	0.111	-0.027	0.267
		$x \geq 4$ times a week	0.017	0.037	0.460	0.645	-0.056	0.090

Table S4: Predicted margins (probability), P-value, and 95% confidence interval of moderate and severe mental distress levels by exercise frequency and COVID-19 era during weekends. **High exercise frequency before, during and late COVID-19 are associated with the lowest probability to be in the moderate and severe mental distress levels. Moderate exercise frequency before COVID-19, and low exercise frequency during and late COVID-19 are associated with the highest probability to be in the moderate and severe mental distress levels.**

COVID-19 Era		Exercise Frequency	Margin	Standard Error	z	P> z	[95% confidence Interval]	
Moderate Mental Health Disorder	Before COVID-19	$x < 2$ times a week	0.138	0.066	2.080	0.038	0.008	0.267
		$2 \leq x < 4$ times a week	0.277	0.053	5.210	0.000	0.172	0.381
		$x \geq 4$ times a week	0.284	0.056	5.080	0.000	0.174	0.394
	During COVID-19	$x < 2$ times a week	0.291	0.047	6.130	0.000	0.198	0.383
		$2 \leq x < 4$ times a week	0.257	0.049	5.280	0.000	0.162	0.352
		$x \geq 4$ times a week	0.247	0.051	4.860	0.000	0.147	0.347
	Late COVID-19	$x < 2$ times a week	0.178	0.113	1.570	0.117	-0.045	0.400
		$2 \leq x < 4$ times a week	0.245	0.114	2.160	0.031	0.023	0.468
		$x \geq 4$ times a week	0.041	0.072	0.560	0.572	-0.101	0.182
Severe Mental Health Disorder	Before COVID-19	$x < 2$ times a week	0.077	0.043	1.790	0.073	-0.007	0.161
		$2 \leq x < 4$ times a week	0.246	0.103	2.380	0.017	0.044	0.449
		$x \geq 4$ times a week	0.432	0.171	2.530	0.011	0.097	0.766
	During COVID-19	$x < 2$ times a week	0.371	0.073	5.070	0.000	0.227	0.514
		$2 \leq x < 4$ times a week	0.199	0.061	3.260	0.001	0.079	0.319
		$x \geq 4$ times a week	0.182	0.061	2.970	0.003	0.062	0.302
	Late COVID-19	$x < 2$ times a week	0.106	0.084	1.250	0.210	-0.060	0.271
		$2 \leq x < 4$ times a week	0.179	0.170	1.050	0.293	-0.155	0.513
		$x \geq 4$ times a week	0.018	0.044	0.400	0.686	-0.069	0.105

Table S5: Predicted margins (probability), P-value, and 95% confidence interval of moderate and severe mental distress levels by exercise frequency and COVID-19 era on men during weekends. **Low exercise frequency before COVID-19, and high exercise frequency during and late COVID-19 are associated with the lowest probability to be in the moderate and severe mental distress levels. High exercise frequency before COVID-19, low exercise frequency during COVID-19, and moderate exercise frequency late COVID-19 are associated with the highest probability to be in the moderate and severe mental distress levels.**

COVID-19 Era		Exercise Frequency	Margin	Standard Error	z	P> z	[95% confidence Interval]	
Moderate Mental Health Disorder	Before COVID-19	$x < 2$ times a week	0.268	0.021	12.950	0.000	0.228	0.309
		$2 \leq x < 4$ times a week	0.192	0.035	5.480	0.000	0.124	0.261
		$x \geq 4$ times a week	0.225	0.037	6.030	0.000	0.152	0.299
	During COVID-19	$x < 2$ times a week	0.249	0.021	11.760	0.000	0.208	0.291
		$2 \leq x < 4$ times a week	0.255	0.019	13.160	0.000	0.217	0.293
		$x \geq 4$ times a week	0.223	0.021	10.490	0.000	0.181	0.265
	Late COVID-19	$x < 2$ times a week	0.240	0.029	8.390	0.000	0.184	0.296
		$2 \leq x < 4$ times a week	0.239	0.027	8.720	0.000	0.185	0.293
		$x \geq 4$ times a week	0.219	0.028	7.890	0.000	0.164	0.273
Severe Mental Health Disorder	Before COVID-19	$x < 2$ times a week	0.324	0.083	3.910	0.000	0.161	0.486
		$2 \leq x < 4$ times a week	0.137	0.042	3.290	0.001	0.055	0.219
		$x \geq 4$ times a week	0.185	0.062	2.980	0.003	0.063	0.307
	During COVID-19	$x < 2$ times a week	0.238	0.035	6.820	0.000	0.170	0.306
		$2 \leq x < 4$ times a week	0.254	0.027	9.300	0.000	0.201	0.308
		$x \geq 4$ times a week	0.181	0.028	6.550	0.000	0.127	0.236
	Late COVID-19	$x < 2$ times a week	0.214	0.054	3.930	0.000	0.107	0.320
		$2 \leq x < 4$ times a week	0.212	0.051	4.190	0.000	0.113	0.311
		$x \geq 4$ times a week	0.174	0.040	4.350	0.000	0.096	0.253

Table S6: Predicted margins (probability), P-value, and 95% confidence interval of moderate and severe mental distress levels by exercise frequency and COVID-19 era on men during weekdays. **Moderate exercise frequency before COVID-19, and high exercise frequency during and late COVID-19 are associated with the lowest probability to be in the moderate and severe mental distress levels. Low exercise frequency before and late COVID-19, and moderate exercise frequency during COVID-19 are associated with the highest probability to be in the moderate and severe mental distress levels.**

Covid-19 Era		Exercise Frequency	Margin	Standard Error	z	P> z	[95% confidence Interval]	
Moderate Mental Health Disorder	Before Covid	$x < 2$ times a week	0.328	0.019	17.270	0.000	0.291	0.366
		$2 \leq x < 4$ times a week	0.312	0.020	15.920	0.000	0.274	0.351
		$x \geq 4$ times a week	0.351	0.023	15.530	0.000	0.307	0.396
	During Covid	$x < 2$ times a week	0.366	0.014	25.530	0.000	0.338	0.394
		$2 \leq x < 4$ times a week	0.372	0.014	26.010	0.000	0.344	0.400
		$x \geq 4$ times a week	0.341	0.023	14.670	0.000	0.295	0.386
	Late Covid	$x < 2$ times a week	0.370	0.015	24.470	0.000	0.340	0.399
		$2 \leq x < 4$ times a week	0.345	0.020	17.250	0.000	0.306	0.385
		$x \geq 4$ times a week	0.311	0.044	7.160	0.000	0.226	0.397
Severe Mental Health Disorder	Before Covid	$x < 2$ times a week	0.174	0.022	7.910	0.000	0.131	0.217
		$2 \leq x < 4$ times a week	0.153	0.021	7.330	0.000	0.112	0.194
		$x \geq 4$ times a week	0.214	0.044	4.850	0.000	0.128	0.301
	During Covid	$x < 2$ times a week	0.379	0.024	15.720	0.000	0.332	0.426
		$2 \leq x < 4$ times a week	0.303	0.024	12.830	0.000	0.257	0.350
		$x \geq 4$ times a week	0.471	0.054	8.790	0.000	0.366	0.576
	Late Covid	$x < 2$ times a week	0.282	0.037	7.720	0.000	0.210	0.353
		$2 \leq x < 4$ times a week	0.202	0.031	6.520	0.000	0.141	0.262
		$x \geq 4$ times a week	0.152	0.049	3.120	0.002	0.056	0.248

Table S7: Predicted margins (probability), P-value, and 95% confidence interval of moderate and severe mental distress levels by exercise frequency and Covid-19 era on women during weekdays. **Moderate exercise frequency before COVID-19, and high exercise frequency during and late COVID-19 are associated with the lowest probability to be in the moderate mental distress level, and moderate exercise frequency before and during COVID-19, and high exercise frequency late COVID-19 are associated with the lowest probability to be in the severe mental distress level. High exercise frequency before COVID-19, moderate exercise frequency during COVID-19, and low exercise frequency late COVID-19 are associated with the highest probability to be in the moderate mental distress level, and high exercise frequency before and during COVID-19, and low exercise frequency late COVID-19 are associated with the highest probability to be in the severe mental distress level.**

Covid-19 Era		Exercise Frequency	Margin	Standard Error	z	P> z	[95% confidence Interval]	
Moderate Mental Health Disorder	Before Covid	$x < 2$ times a week	0.282	0.031	9.230	0.000	0.222	0.342
		$2 \leq x < 4$ times a week	0.297	0.027	11.070	0.000	0.244	0.349
		$x \geq 4$ times a week	0.270	0.039	6.970	0.000	0.194	0.346
	During Covid	$x < 2$ times a week	0.311	0.027	11.550	0.000	0.258	0.364
		$2 \leq x < 4$ times a week	0.299	0.027	11.020	0.000	0.246	0.352
		$x \geq 4$ times a week	0.000	0.000	0.000	0.999	-0.001	0.001
	Late Covid	$x < 2$ times a week	0.247	0.059	4.200	0.000	0.132	0.362
		$2 \leq x < 4$ times a week	0.214	0.104	2.060	0.040	0.010	0.418
		$x \geq 4$ times a week	0.282	0.031	9.230	0.000	0.222	0.342
Severe Mental Health Disorder	Before Covid	$x < 2$ times a week	0.213	0.038	5.560	0.000	0.138	0.288
		$2 \leq x < 4$ times a week	0.252	0.041	6.170	0.000	0.172	0.332
		$x \geq 4$ times a week	0.189	0.061	3.130	0.002	0.071	0.308
	During Covid	$x < 2$ times a week	0.338	0.044	7.710	0.000	0.252	0.424
		$2 \leq x < 4$ times a week	0.259	0.047	5.540	0.000	0.168	0.351
		$x \geq 4$ times a week	1.000	0.000	2427.920	0.000	0.999	1.001
	Late Covid	$x < 2$ times a week	0.155	0.073	2.130	0.033	0.012	0.298
		$2 \leq x < 4$ times a week	0.118	0.103	1.150	0.251	-0.083	0.319
		$x \geq 4$ times a week	0.213	0.038	5.560	0.000	0.138	0.288

Table S8: Predicted margins (probability), P-value, and 95% confidence interval of moderate and severe mental distress levels by exercise frequency and Covid-19 era on women during weekends. **high exercise frequency before COVID-19, and moderate exercise frequency during and late COVID-19 are associated with the lowest probability to be in the moderate mental distress level, and high exercise frequency before COVID-19, moderate exercise frequency during COVID-19, and low exercise frequency late COVID-19 are associated with the lowest probability to be in the severe mental distress level. Moderate exercise frequency before COVID-19, low exercise frequency during COVID-19, and high exercise frequency late COVID-19 are associated with the highest probability to be in the moderate mental distress level, and moderate exercise frequency before COVID-19, and high exercise frequency during and late COVID-19 are associated with the highest probability to be in the severe mental distress level.**

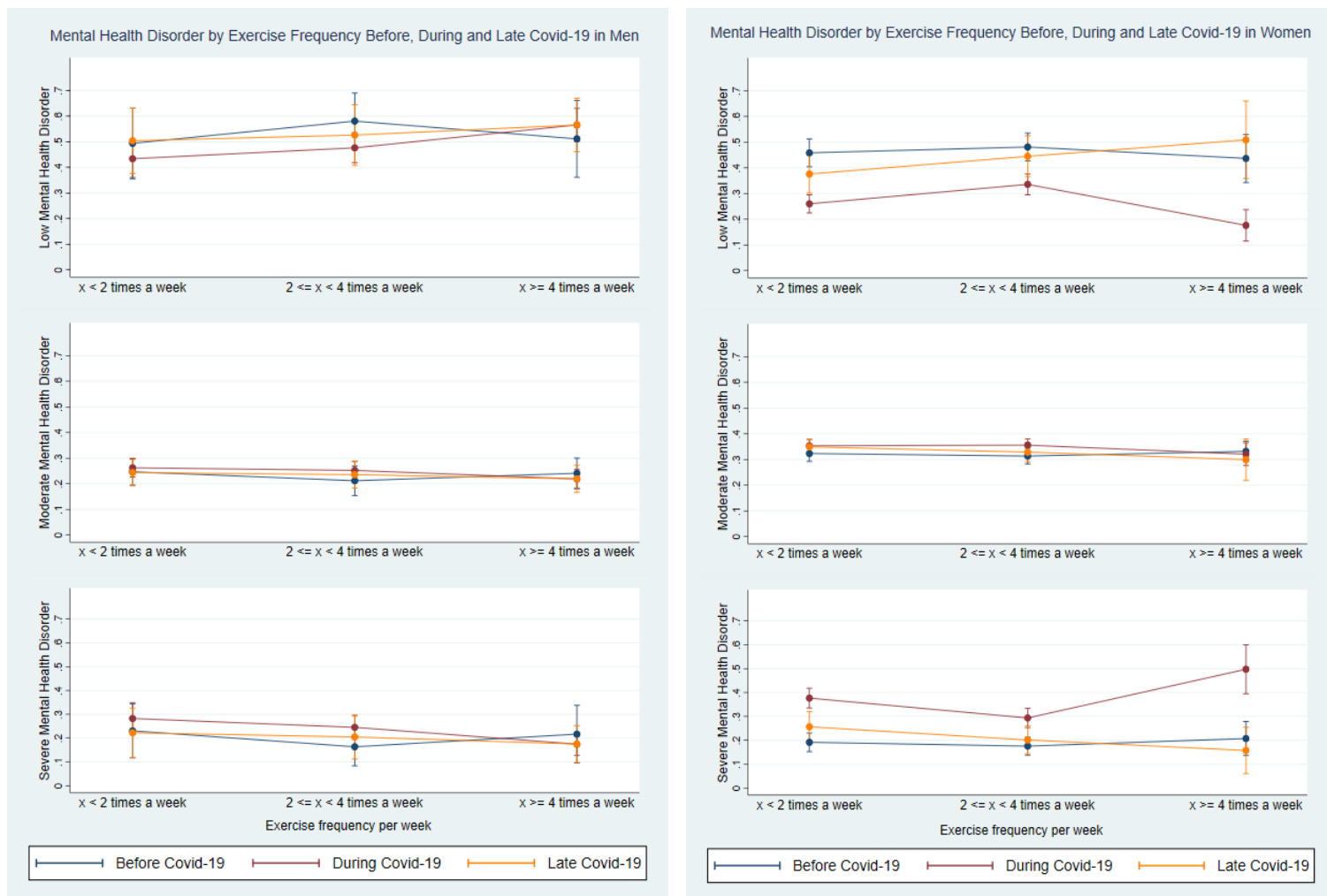


Figure S1: Left: Predicted margins (probability) of each mental distress level by exercise frequency and COVID-19 duration in men - Right: Predicted margins (probability) of each mental distress level by exercise frequency and COVID-19 duration in women

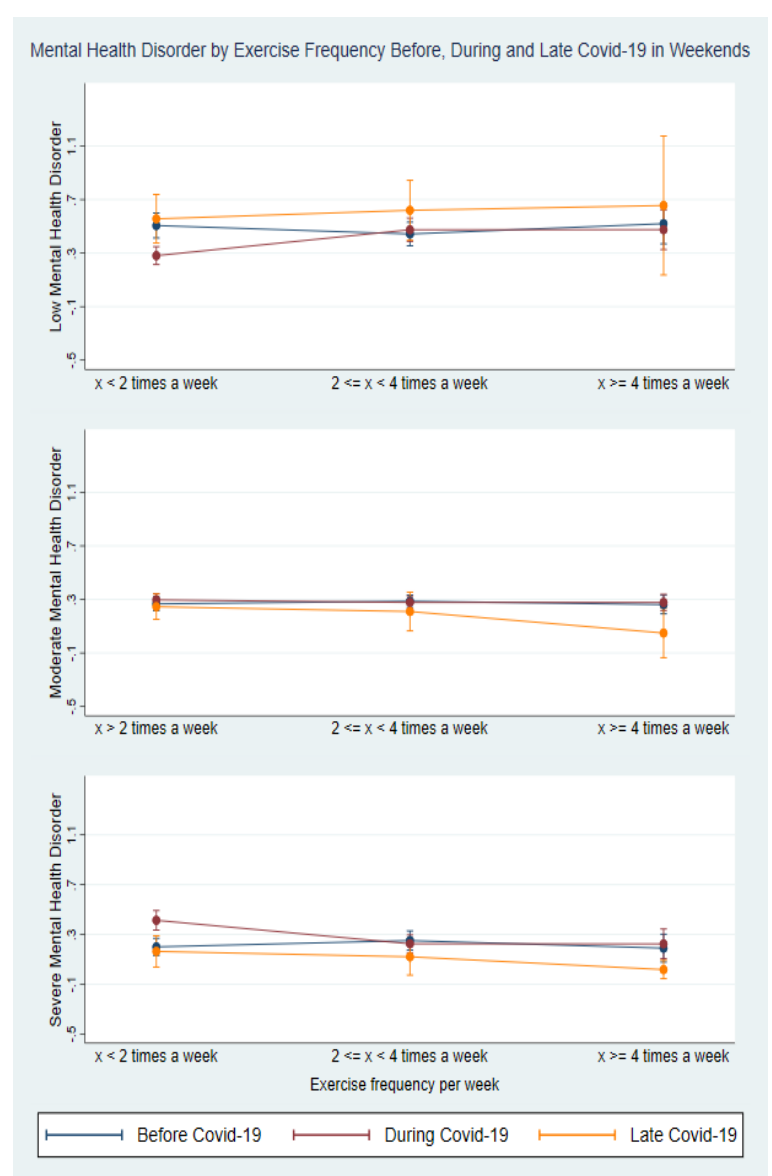
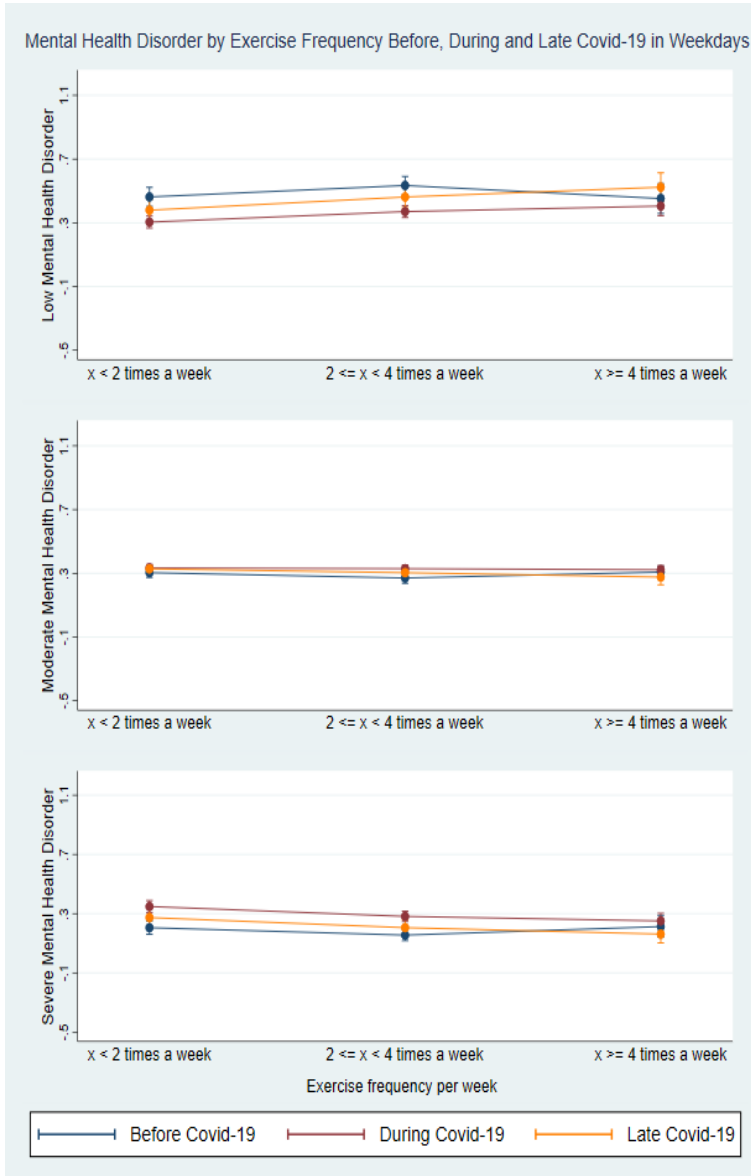


Figure S2: Left: Predicted margins (probability) of each mental distress level by exercise frequency and COVID-19 duration during weekdays - Right: Predicted margins (probability) of each mental distress level by exercise frequency and COVID-19 duration during weekends

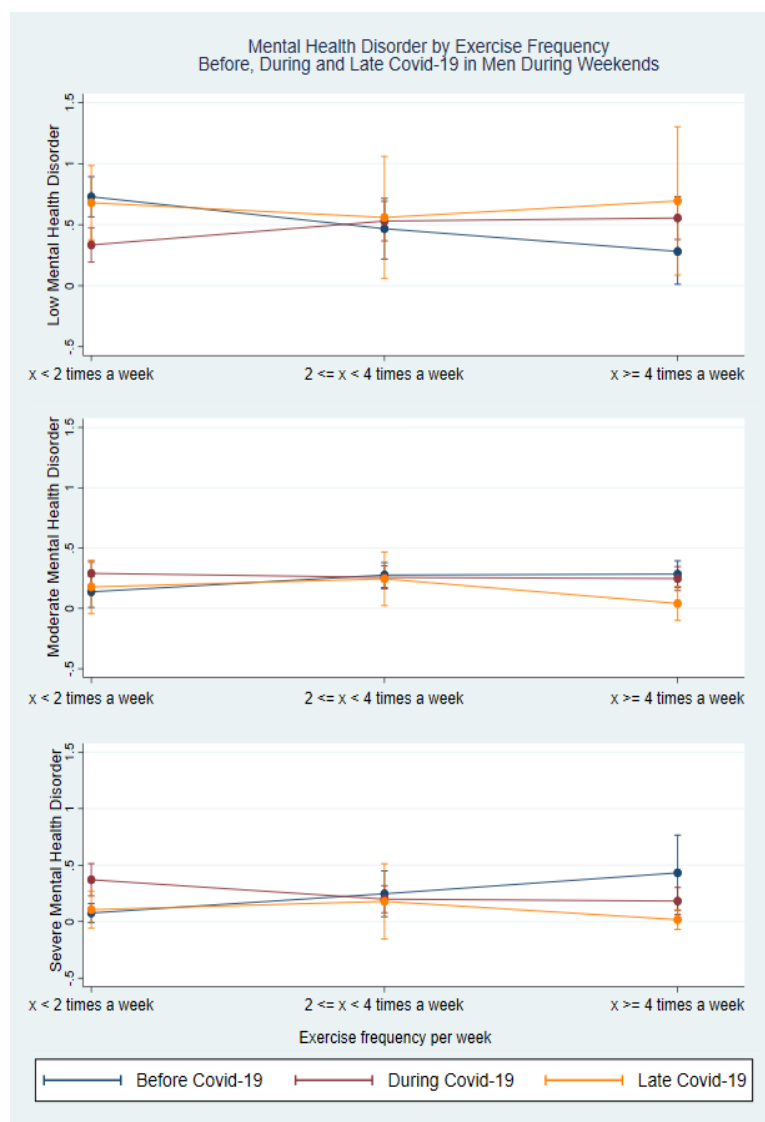
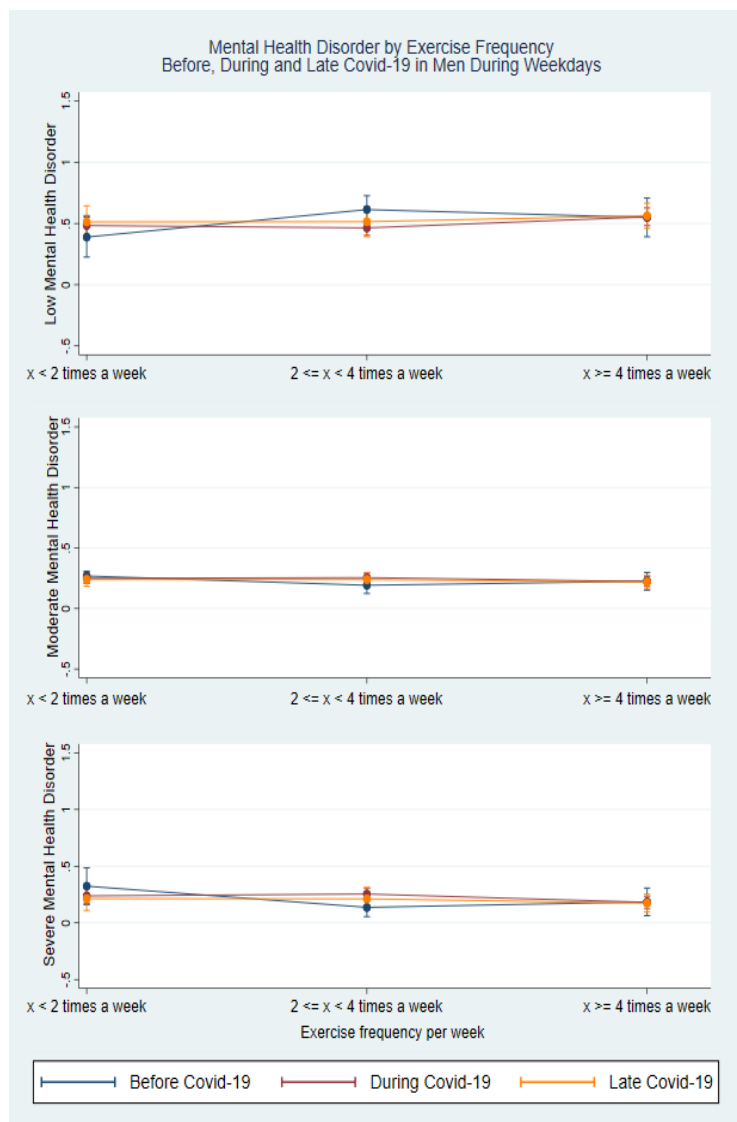


Figure S3: Left: Predicted margins (probability) of each mental distress level by exercise frequency and COVID-19 duration in men during weekdays - Right: Predicted margins (probability) of each mental distress level by exercise frequency and COVID-19 duration in men during weekends

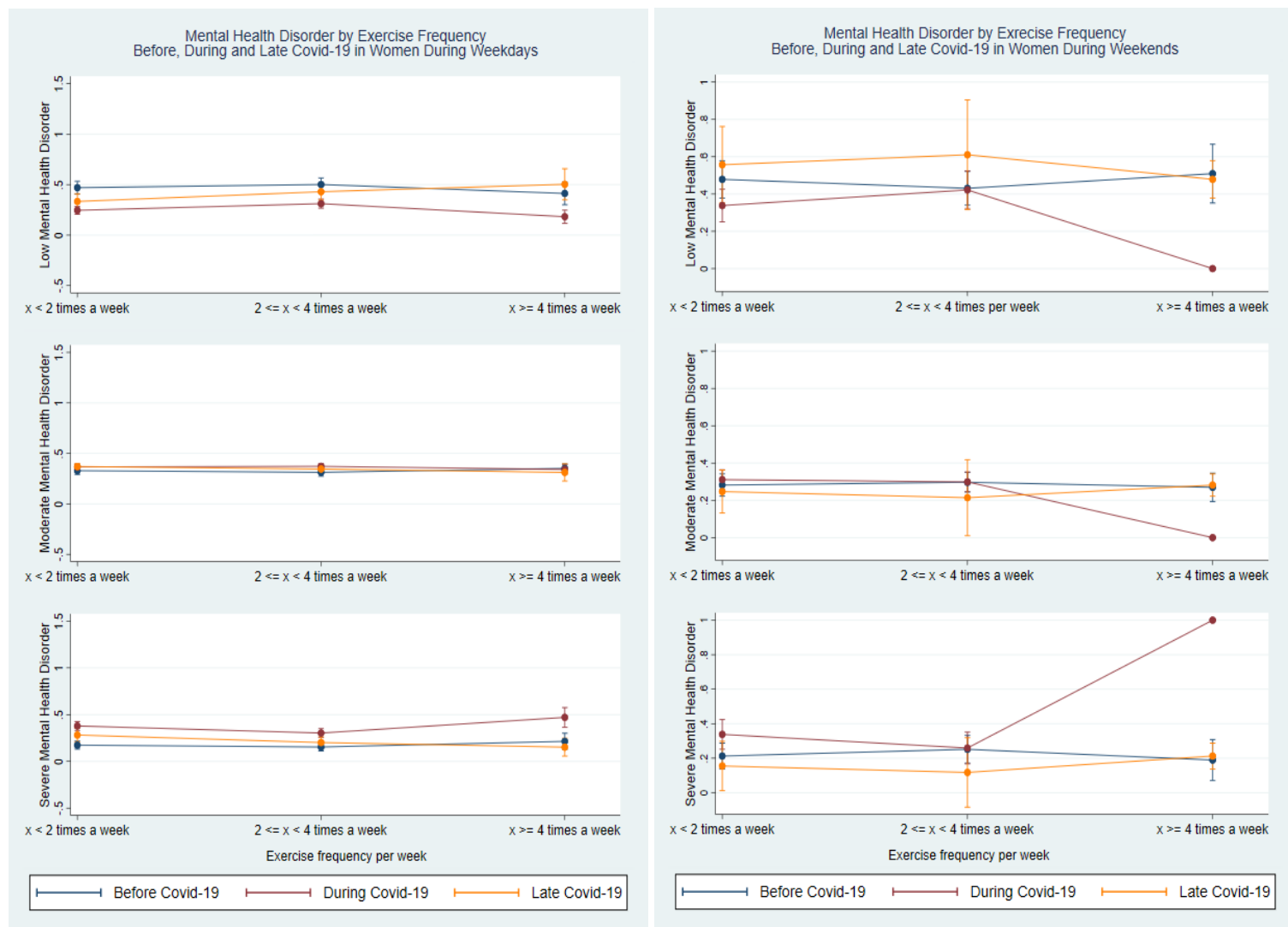


Figure S4: Left: Predicted margins (probability) of each mental distress level by exercise frequency and COVID-19 duration in women during weekdays - Right: Predicted margins (probability) of each mental distress level by exercise frequency and COVID-19 duration in women during weekends