THE LANCET
Psychiatry

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Appendix

Lockdown timeline

From weeks 1-8 of lockdown, individuals could only leave their home for exercise once a day, purchasing essentials, and essential work. On 10/05/20, it was announced that strict lockdown was being eased, with unlimited outdoor exercise permitted, more movement around the country permitted, and some returns to work allowed. On 15/06/20, non-essential retail was reopened, with individuals allowed to go shopping again, secondary schools were opened for pupils in some years, and individuals living alone could form a 'support bubble' with another household. On 04/07/20, further public amenities reopened such as places of worship, museums, hairdressers, holiday accommodation, and cafes, pubs and restaurants, and individuals from two households could meet socially indoors.
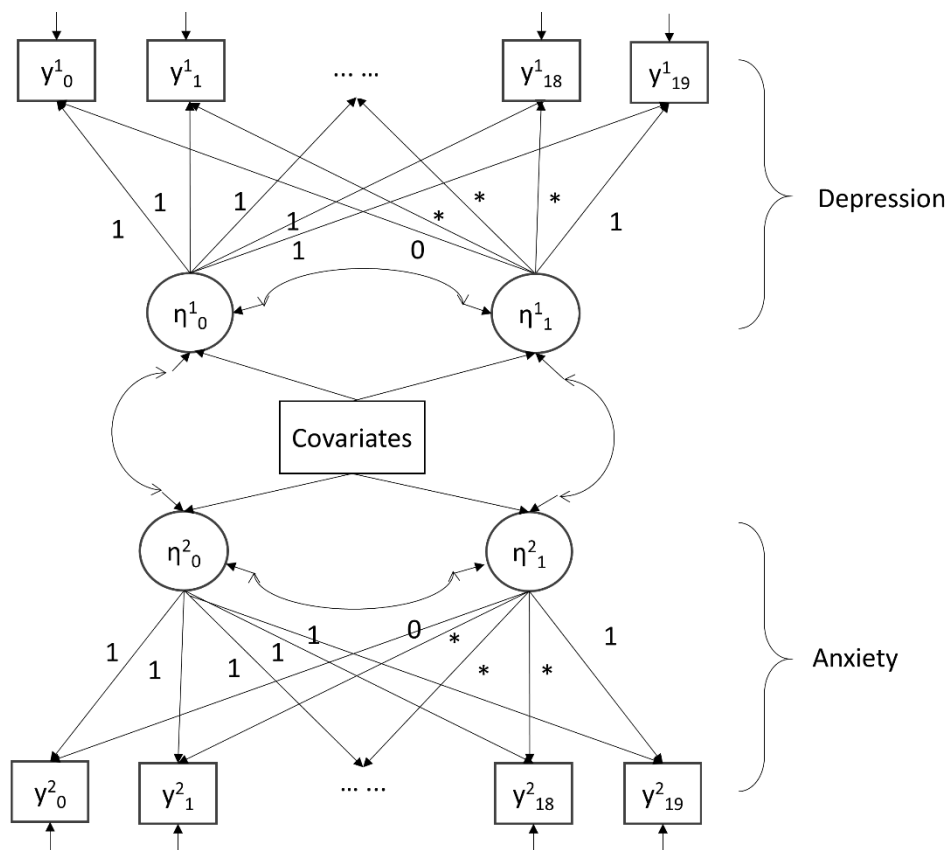

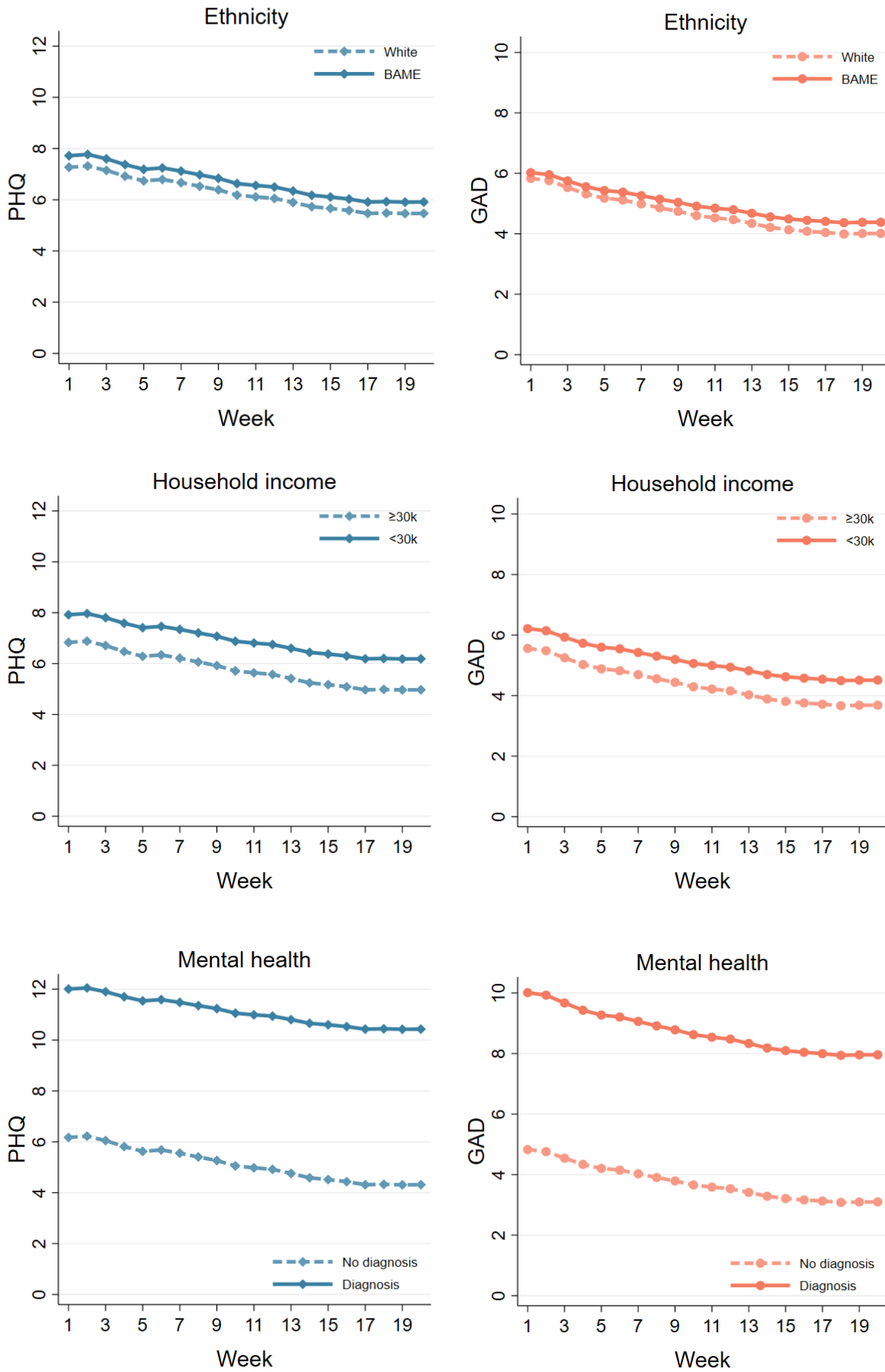Figure S1. Conditional multi-process LGM

Figure S2: Predicted growth trajectories of anxiety by further individual characteristics

Table S1 Characteristics of participants who were excluded from the analysis due to missing data.

	Excluded participants (N=4000)	
	%	N
Gender, women	80.8%	3,835
Age		
18-29	10.5%	4,000
30-45	18.9%	4,000
46-59	32.9%	4,000
60+	37.8%	4,000
Ethnicity, BAME	5.7%	3,867
Education		
GCSE or below	18.3%	4,000
A-levels or equivalent	21.3%	4,000
Degree or above	60.4%	4,000
Household income <30k	51.2%	213
Living status		
Alone	14.0%	4,000
With others (not children)	64.7%	4,000
With others (including children)	21.3%	4,000
Diagnosed mental illness	18.1%	4,000

Table S2. The distribution of number of follow-up weeks

Number of weeks	N	Percent
3	3,608	9.88
4	2,634	7.21
5	2,346	6.42
6	1,638	4.49
7	1,381	3.78
8	1,126	3.08
9	1,003	2.75
10	1,055	2.89
11	1,040	2.85
12	1,393	3.81
13	1,696	4.64
14	1,853	5.07
15	1,516	4.15
16	2,050	5.61
17	3,162	8.66
18	3,386	9.27
19	3,695	10.12
20	1,938	5.31

Table S3 Correlation between PHQ and GAD scores in by week

Week	Correlation between GAD and PHQ
1	0.76
2	0.78
3	0.79
4	0.81
5	0.81
6	0.83
7	0.83
8	0.83
9	0.83
10	0.83
11	0.83
12	0.84
13	0.83
14	0.84
15	0.84
16	0.84
17	0.84
18	0.84
19	0.84
20	0.85

Table S4 Unweighted and weighted descriptive statistics by week

	Week 1			Week2		
	Raw		Weighted	Raw		Weighted
	N	%	%	N	%	%
Gender, women	12491	74.4%	48.7%	14569	75.3%	50.2%
Age						
18-29	1269	7.6%	17.9%	1517	7.8%	18.6%
30-45	5161	30.7%	27.4%	6003	31.0%	27.9%
46-59	5328	31.7%	23.9%	6113	31.6%	23.5%
60+	5036	30.0%	30.8%	5717	29.5%	30.0%
Ethnicity, BAME	781	4.7%	13.9%	977	5.0%	14.9%
Education						
GCSE or below	2211	13.2%	32.4%	2481	12.8%	32.0%
A-levels or equivalent	2869	17.1%	32.8%	3206	16.6%	32.2%
Degree or above	11714	69.8%	34.8%	13663	70.6%	35.9%
Household income <30k	6196	36.9%	46.8%	7000	36.2%	46.0%
Living status						
Alone	3239	19.3%	18.5%	3702	19.1%	18.1%
With others (not children)	9022	53.7%	56.7%	10415	53.8%	56.6%
With others (including children)	4533	27.0%	24.9%	5233	27.0%	25.3%
Diagnosed mental illness	2968	17.7%	18.5%	3348	17.3%	18.5%

	Week 3			Week 4		
	Raw		Weighted	Raw		Weighted
	N	%	%	N	%	%
Gender, women	19425	74.7%	48.9%	19843	75.0%	49.3%
Age						
18-29	1856	7.1%	17.4%	1866	7.1%	17.3%
30-45	7754	29.8%	27.0%	7799	29.5%	26.7%
46-59	8497	32.7%	24.3%	8639	32.7%	24.2%
60+	7913	30.4%	31.3%	8148	30.8%	31.8%
Ethnicity, BAME	1201	4.6%	13.1%	1219	4.6%	13.2%
Education						
GCSE or below	3541	13.6%	33.7%	3535	13.4%	33.6%
A-levels or equivalent	4526	17.4%	32.8%	4537	17.2%	32.2%
Degree or above	17953	69.0%	33.5%	18380	69.5%	34.1%
Household income <30k	9698	37.3%	46.9%	9755	36.9%	46.4%
Living status						
Alone	5033	19.3%	18.6%	5218	19.7%	19.0%
With others (not children)	13886	53.4%	55.9%	14111	53.3%	56.1%
With others (including children)	7101	27.3%	25.6%	7123	26.9%	25.0%
Diagnosed mental illness	4640	17.8%	18.7%	4683	17.7%	18.6%

	Week 5			Week 6		
	Raw		Weighted	Raw		Weighted
	N	%	%	N	%	%
Gender, women	19322	74.9%	49.5%	18716	75.4%	50.4%
Age						
18-29	1830	7.1%	17.9%	1675	6.7%	17.6%
30-45	7333	28.4%	25.4%	6793	27.3%	24.5%
46-59	8400	32.6%	24.0%	8153	32.8%	24.0%
60+	8235	31.9%	32.7%	8217	33.1%	33.8%
Ethnicity, BAME	1176	4.6%	13.1%	1104	4.4%	13.2%
Education						
GCSE or below	3414	13.2%	33.5%	3202	12.9%	33.0%
A-levels or equivalent	4400	17.1%	32.7%	4185	16.8%	32.6%
Degree or above	17984	69.7%	33.8%	17451	70.3%	34.4%
Household income <30k	9670	37.5%	47.3%	9292	37.4%	47.4%
Living status						
Alone	5182	20.1%	19.3%	5080	20.5%	19.3%
With others (not children)	13915	53.9%	56.8%	13476	54.3%	57.7%
With others (including children)	6701	26.0%	23.9%	6282	25.3%	23.0%
Diagnosed mental illness	4560	17.7%	18.7%	4412	17.8%	19.2%

| | Week 7 | | | Week 8 | | |
| | Raw | | Weighted | Raw | | Weighted |
	N	%	%	N	%	%
Gender, women	18654	75.6%	50.2%	19155	75.6%	50.2%
Age						
18-29	1576	6.4%	17.2%	1601	6.3%	16.3%
30-45	6559	26.6%	23.7%	6564	25.9%	23.3%
46-59	8187	33.2%	24.6%	8419	33.2%	25.0%
60+	8367	33.9%	34.5%	8737	34.5%	35.4%
Ethnicity, BAME	1114	4.5%	13.0%	1172	4.6%	13.2%
Education						
GCSE or below	3159	12.8%	33.0%	3224	12.7%	32.8%
A-levels or equivalent	4125	16.7%	32.3%	4196	16.6%	32.1%
Degree or above	17405	70.5%	34.8%	17901	70.7%	35.1%
Household income <30k	9196	37.2%	46.7%	9429	37.2%	46.6%
Living status						
Alone	5186	21.0%	19.9%	5383	21.3%	20.0%
With others (not children)	13386	54.2%	57.3%	13786	54.4%	57.5%
With others (including children)	6117	24.8%	22.8%	6152	24.3%	22.5%
Diagnosed mental illness	4246	17.2%	18.7%	4348	17.2%	18.7%

| | Week 9 | | | Week 10 | | |
| | Raw | | Weighted | Raw | | Weighted |
	N	%	%	N	%	%
Gender, women	18548	75.5%	49.9%	17992	75.9%	50.5%
Age						
18-29	1521	6.2%	16.3%	1411	5.9%	15.5%
30-45	6248	25.4%	22.8%	5860	24.7%	22.3%
46-59	8192	33.4%	25.0%	7985	33.7%	25.4%
60+	8592	35.0%	35.9%	8462	35.7%	36.9%
Ethnicity, BAME	1092	4.4%	13.1%	1050	4.4%	12.9%
Education						
GCSE or below	3114	12.7%	32.7%	3017	12.7%	32.8%
A-levels or equivalent	4082	16.6%	32.5%	3933	16.6%	32.2%
Degree or above	17357	70.7%	34.8%	16768	70.7%	35.0%
Household income <30k	9239	37.6%	46.8%	8937	37.7%	46.9%
Living status						
Alone	5238	21.3%	20.2%	5109	21.5%	20.4%
With others (not children)	13437	54.7%	57.6%	13034	55.0%	58.0%
With others (including children)	5878	23.9%	22.2%	5575	23.5%	21.7%
Diagnosed mental illness	4206	17.1%	18.9%	4013	16.9%	18.4%

| | Week 11 | | | Week 12 | | |
| | Raw | | Weighted | Raw | | Weighted |
	N	%	%	N	%	%
Gender, women	17465	75.9%	50.5%	16725	75.8%	50.5%
Age						
18-29	1308	5.7%	15.3%	1214	5.5%	14.5%
30-45	5594	24.3%	21.9%	5219	23.7%	21.3%
46-59	7724	33.6%	25.2%	7369	33.4%	25.3%
60+	8394	36.5%	37.6%	8261	37.4%	38.8%
Ethnicity, BAME	984	4.3%	12.4%	907	4.1%	11.9%
Education						
GCSE or below	2922	12.7%	32.9%	2852	12.9%	34.0%
A-levels or equivalent	3801	16.5%	32.3%	3635	16.5%	31.5%
Degree or above	16297	70.8%	34.8%	15576	70.6%	34.5%
Household income <30k	8766	38.1%	47.8%	8506	38.6%	47.9%
Living status						
Alone	5042	21.9%	20.5%	4857	22.0%	20.8%
With others (not children)	12665	55.0%	58.3%	12211	55.3%	58.6%
With others (including children)	5313	23.1%	21.2%	4995	22.6%	20.7%
Diagnosed mental illness	3866	16.8%	18.3%	3657	16.6%	18.1%

| | Week 13 | | | Week 14 | | |
| | Raw | | Weighted | Raw | | Weighted |
	N	%	%	N	%	%
Gender, women	16233	75.7%	49.8%	15818	75.8%	50.0%
Age						
18-29	1154	5.4%	14.5%	1074	5.1%	14.1%
30-45	5008	23.4%	21.2%	4806	23.0%	20.7%
46-59	7133	33.3%	24.9%	6940	33.2%	25.1%
60+	8139	38.0%	39.4%	8057	38.6%	40.1%
Ethnicity, BAME	892	4.2%	12.2%	857	4.1%	11.9%
Education						
GCSE or below	2750	12.8%	33.6%	2733	13.1%	34.2%
A-levels or equivalent	3519	16.4%	31.8%	3431	16.4%	31.5%
Degree or above	15165	70.8%	34.6%	14713	70.5%	34.3%
Household income <30k	8284	38.6%	48.0%	8134	39.0%	48.2%
Living status						
Alone	4758	22.2%	20.9%	4659	22.3%	21.0%
With others (not children)	11897	55.5%	58.9%	11612	55.6%	59.1%
With others (including children)	4779	22.3%	20.2%	4606	22.1%	19.9%
Diagnosed mental illness	3536	16.5%	17.6%	3404	16.3%	17.6%

	Week 15			Week 16		
	Raw		Weighted	Raw		Weighted
	N	%	%	N	%	%
Gender, women	15211	75.5%	49.7%	14644	75.7%	49.8%
Age						
18-29	968	4.8%	12.9%	922	4.8%	12.9%
30-45	4503	22.3%	20.2%	4279	22.1%	19.9%
46-59	6736	33.4%	25.5%	6411	33.1%	25.0%
60+	7942	39.4%	41.4%	7745	40.0%	42.2%
Ethnicity, BAME	789	3.9%	11.3%	771	4.0%	11.4%
Education						
GCSE or below	2651	13.2%	35.1%	2582	13.3%	35.1%
A-levels or equivalent	3342	16.6%	30.9%	3193	16.5%	31.2%
Degree or above	14156	70.3%	34.0%	13582	70.2%	33.7%
Household income <30k	7912	39.3%	48.4%	7665	39.6%	49.3%
Living status						
Alone	4561	22.6%	21.2%	4424	22.9%	21.4%
With others (not children)	11253	55.8%	59.2%	10821	55.9%	59.4%
With others (including children)	4335	21.5%	19.6%	4112	21.2%	19.2%
Diagnosed mental illness	3238	16.1%	17.1%	3154	16.3%	17.3%

	Week 17			Week 18		
	Raw		Weighted	Raw		Weighted
	N	%	%	N	%	%
Gender, women	14272	75.5%	49.4%	13875	75.5%	49.3%
Age						
18-29	859	4.5%	12.4%	829	4.5%	12.2%
30-45	4104	21.7%	20.0%	3925	21.4%	19.7%
46-59	6238	33.0%	25.1%	6055	33.0%	25.3%
60+	7707	40.8%	42.5%	7560	41.2%	42.9%
Ethnicity, BAME	764	4.0%	11.5%	735	4.0%	11.2%
Education						
GCSE or below	2535	13.4%	35.3%	2496	13.6%	35.6%
A-levels or equivalent	3148	16.6%	31.4%	3061	16.7%	31.1%
Degree or above	13225	69.9%	33.4%	12812	69.7%	33.3%
Household income <30k	7525	39.8%	49.5%	7381	40.2%	49.5%
Living status						
Alone	4307	22.8%	21.6%	4227	23.0%	21.9%
With others (not children)	10628	56.2%	59.5%	10335	56.3%	59.5%
With others (including children)	3973	21.0%	18.9%	3807	20.7%	18.5%
Diagnosed mental illness	3021	16.0%	17.0%	2933	16.0%	16.9%

	Week 19			Week 20		
	Raw		Weighted	Raw		Weighted
	N	%	%	N	%	%
Gender, women	13341	75.5%	49.2%	12948	75.5%	49.6%
Age						
18-29	790	4.5%	12.5%	739	4.3%	11.7%
30-45	3741	21.2%	19.6%	3525	20.6%	19.1%
46-59	5791	32.8%	24.9%	5656	33.0%	25.4%
60+	7351	41.6%	43.0%	7219	42.1%	43.9%
Ethnicity, BAME	696	3.9%	11.6%	665	3.9%	10.8%
Education						
GCSE or below	2372	13.4%	35.2%	2347	13.7%	35.5%
A-levels or equivalent	2956	16.7%	31.6%	2866	16.7%	31.5%
Degree or above	12345	69.9%	33.2%	11926	69.6%	33.0%
Household income <30k	7108	40.2%	49.4%	6920	40.4%	49.8%
Living status						
Alone	4114	23.3%	21.8%	3969	23.2%	22.2%
With others (not children)	10006	56.6%	59.9%	9750	56.9%	59.6%
With others (including children)	3553	20.1%	18.3%	3420	20.0%	18.2%
Diagnosed mental illness	2819	16.0%	16.9%	2710	15.8%	16.9%

Table S5 Categorisation of the severity of anxiety and depressive symptoms week by week

Week	GAD 0-4 %	N	5-9 %	N	10-14 %	N	15+ %	N	PHQ 0-4 %	N	5-9 %	N	10-14 %	N	15-19 %	N	20+ %	N
1	53.4%	9123	24.1%	4111	12.2%	2092	10.3%	1764	48.1%	8228	26.8%	4578	13.0%	2218	7.5%	1290	4.5%	776
2	55.0%	10681	24.0%	4657	12.4%	2405	8.7%	1681	44.9%	8719	28.3%	5502	15.1%	2933	7.6%	1468	4.1%	803
3	57.7%	15295	22.9%	6085	11.3%	2996	8.1%	2142	45.9%	12175	27.5%	7292	14.8%	3928	7.3%	1942	4.5%	1180
4	58.7%	15580	23.1%	6122	10.6%	2807	7.6%	2028	46.9%	12458	27.6%	7316	14.4%	3821	6.8%	1810	4.3%	1132
5	59.8%	15428	23.0%	5947	9.9%	2550	7.3%	1879	48.9%	12612	27.3%	7049	12.9%	3337	6.8%	1758	4.1%	1047
6	60.0%	14461	22.1%	5330	10.0%	2417	7.8%	1876	46.0%	11069	26.8%	6458	14.9%	3594	7.1%	1707	5.2%	1256
7	60.9%	14358	21.6%	5088	10.7%	2516	6.8%	1596	48.0%	11305	25.6%	6030	14.1%	3314	7.6%	1783	4.8%	1125
8	62.3%	14914	21.0%	5025	9.7%	2312	7.0%	1681	49.1%	11756	25.9%	6196	13.1%	3140	7.3%	1739	4.6%	1102
9	63.2%	14632	20.0%	4622	10.0%	2317	6.8%	1579	50.4%	11674	24.8%	5737	13.1%	3039	6.8%	1579	4.8%	1123
10	65.1%	14299	19.7%	4337	8.5%	1873	6.7%	1462	53.4%	11726	24.5%	5372	12.0%	2633	6.0%	1316	4.2%	922
11	65.7%	13874	19.2%	4061	8.4%	1773	6.6%	1395	54.2%	11430	23.9%	5037	12.0%	2523	5.5%	1165	4.5%	947
12	65.1%	13129	19.7%	3979	9.0%	1805	6.2%	1240	52.6%	10610	24.5%	4942	12.1%	2443	6.0%	1211	4.7%	946
13	67.1%	13147	18.4%	3603	8.5%	1662	6.0%	1169	54.4%	10655	24.6%	4814	11.0%	2164	5.6%	1094	4.4%	855
14	68.3%	12982	18.4%	3488	8.1%	1543	5.2%	986	57.3%	10879	23.5%	4459	10.3%	1957	5.3%	1016	3.6%	686
15	69.1%	12565	17.5%	3188	8.2%	1496	5.1%	936	57.1%	10391	23.8%	4322	10.2%	1862	5.0%	913	3.8%	697
16	69.3%	12159	18.3%	3212	7.1%	1241	5.3%	934	58.3%	10222	23.4%	4103	9.8%	1727	4.9%	851	3.7%	642
17	69.9%	11987	17.9%	3062	7.1%	1218	5.1%	880	60.9%	10436	21.7%	3725	8.9%	1524	5.0%	855	3.5%	607
18	71.7%	11946	16.3%	2720	6.8%	1130	5.2%	858	62.0%	10325	21.0%	3503	8.9%	1487	4.6%	760	3.5%	579
19	71.6%	11475	16.9%	2715	6.6%	1058	4.9%	778	62.4%	9993	21.3%	3416	8.6%	1384	4.5%	726	3.2%	507
20	71.7%	11068	16.8%	2586	6.5%	996	5.0%	779	63.3%	9769	20.3%	3134	8.4%	1296	4.5%	699	3.4%	529

Table S6 Results from the conditional multi-process LGM model

	Anxiety			Depression		
	b	se	p	b	se	p
Main Structure						
Intercept (I)	5.35	0.23	<0.0001	7.49	0.25	<0.0001
Slope (S)	-1.93	0.26	<0.0001	-2.52	0.28	<0.0001
Slope Structure						
Week 1 (Y_0)	0.00	--	--	0.00	--	--
Week 2 (Y_1)	0.04	0.02	0.020	-0.03	0.02	0.171
Week 3 (Y_1)	0.17	0.02	<0.0001	0.07	0.02	0.004
Week 4 (Y_1)	0.28	0.02	<0.0001	0.19	0.02	<0.0001
Week 5 (Y_1)	0.36	0.02	<0.0001	0.29	0.02	<0.0001
Week 6 (Y_1)	0.39	0.02	<0.0001	0.26	0.02	<0.0001
Week 7 (Y_1)	0.46	0.02	<0.0001	0.33	0.02	<0.0001
Week 8 (Y_1)	0.53	0.02	<0.0001	0.41	0.02	<0.0001
Week 9 (Y_1)	0.60	0.02	<0.0001	0.49	0.02	<0.0001
Week 10 (Y_1)	0.68	0.02	<0.0001	0.60	0.02	<0.0001
Week 11 (Y_1)	0.72	0.02	<0.0001	0.64	0.03	<0.0001
Week 12 (Y_1)	0.75	0.02	<0.0001	0.68	0.03	<0.0001
Week 13 (Y_1)	0.82	0.02	<0.0001	0.76	0.02	<0.0001
Week 14 (Y_1)	0.89	0.02	<0.0001	0.85	0.02	<0.0001
Week 15 (Y_1)	0.93	0.02	<0.0001	0.89	0.02	<0.0001
Week 16 (Y_1)	0.96	0.02	<0.0001	0.94	0.02	<0.0001
Week 17 (Y_1)	0.98	0.02	<0.0001	1.00	0.02	<0.0001
Week 18 (Y_1)	1.01	0.02	<0.0001	0.99	0.02	<0.0001
Week 19 (Y_1)	1.00	0.02	<0.0001	1.00	0.02	<0.0001
Week 20 (Y_1)	1.00	--	--	1.00	--	--
Covariance Structure						
I (anxiety) with S (anxiety)	-9.40			0.71		<0.0001
I (depression) with S (depression)	-6.99			0.73		<0.0001
I (anxiety) with I (depression)	20.46			0.56		<0.0001
S (anxiety) with S (depression)	18.64			1.23		<0.0001
I (anxiety) with S (depression)	-8.53			0.73		<0.0001
I (depression) with S (anxiety)	-7.07			0.68		<0.0001

Notes: Model controlled for covariates, including gender, age, ethnicity, education, income, living status and pre-existing mental health conditions