

Title: Perceived neighbourhood social cohesion and depressive symptom trajectories in older adults: A twelve-year prospective cohort study

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S1 Study characteristics of participants with ≤ 2 depressive symptoms at baseline in the longitudinal analytic sample

Study data^a		
<i>Longitudinal measures</i>		
Number of depressive symptoms during the past week (0-8)	Mean	N
Wave 1 (2002/3)	0.6	8,269
Wave 2 (2004/5)	1.1	6,516
Wave 3 (2006/7)	1.0	5,590
Wave 4 (2008/9)	1.0	4,927
Wave 5 (2010/1)	1.1	4,594
Wave 6 (2012/3)	1.0	4,201
Wave 7 (2014/5)	1.0	3,637
Probable depression ($3 \geq$ symptoms during the past week)	%	N
Wave 1 (2002/3)	0.0	8,269
Wave 2 (2004/5)	14.0	6,516
Wave 3 (2006/7)	13.1	5,590
Wave 4 (2008/9)	14.3	4,927
Wave 5 (2010/1)	15.4	4,594
Wave 6 (2012/3)	13.4	4,201
Wave 7 (2014/5)	13.8	3,637
<i>Baseline measures</i>		
Perceived social cohesion score (0-24)	Mean or %	N
High (22 – 24)	33.1	2,737
Medium (18 – 21)	34.0	2,811
Low (0 – 17)	28.2	2,721
Baseline age	64.6	8,269
Female	51.0	4,217
Non-white	2.2	182
Self-reported ever doctor-diagnosis of depression	3.3	273
No educational qualification	38.7	3,200
Work status		
Employed	36.9	3,051
Retired	49.5	4,093
Economically inactive	4.2	347
Permanently sick/disabled	9.4	777
Total non-pension wealth		
1 (Richest)	15.7	1,298
2	18.4	1,521
3	20.7	1,712
4	22.1	1,827
5	23.1	1,910
Self-rated health		
Very good	23.9	1,976
Good	38.3	3,167
Fair	25.9	2,142
Poor	11.9	984
Self-reported limiting long-term illness	26.4	2,183

a: The estimates are averaged over the multiply imputed data sets, and corrected for the study's non-response at wave 1. The longitudinal analytic sample (n=8,269) includes participants with varying observations of valid data on depressive symptoms across waves.

S2 Poisson growth model of the number of depressive symptoms for participants with ≤ 2 symptoms at baseline (2002/3 – 2014/5)

Growth parameters	Initial model^a			Fully-adjusted model^b		
	b	SE	P	b	SE	P
Intercept	-0.814	0.032	<0.001	-0.977	0.048	<0.001
Intercept regressed on						
Female	0.336	0.025	<0.001	0.340	0.025	<0.001
Baseline age (years) ^d	0.016	0.002	<0.001	0.009	0.002	<0.001
Medium PSC	0.096	0.035	0.006	0.094	0.035	0.007
Low PSC	0.244	0.034	<0.001	0.195	0.033	<0.001
Baseline age x medium PSC	-0.004	0.003	0.259	-0.003	0.003	0.294
Baseline age x low PSC	-0.007	0.003	0.016	-0.008	0.003	0.010
Slope ^c	0.274	0.058	<0.001	0.453	0.019	<0.001
Slope regressed on						
Female	0.086	0.041	0.036	0.043	0.042	0.312
Baseline age (years)	0.023	0.004	<0.001	0.021	0.004	<0.001
Medium PSC	0.002	0.056	0.968	0.010	0.056	0.858
Low PSC	0.122	0.056	0.030	0.121	0.057	0.032
Baseline age x medium PSC	0.012	0.006	0.045	0.011	0.006	0.067
Baseline age x low PSC	0.017	0.006	0.003	0.016	0.006	0.007
Intercept variance	0.545	0.020	<0.001	0.788	0.038	<0.001
Slope variance	0.423	0.038	<0.001	0.420	0.038	<0.001
Intercept – Slope covariance	0.156	0.023	<0.001	0.125	0.021	<0.001

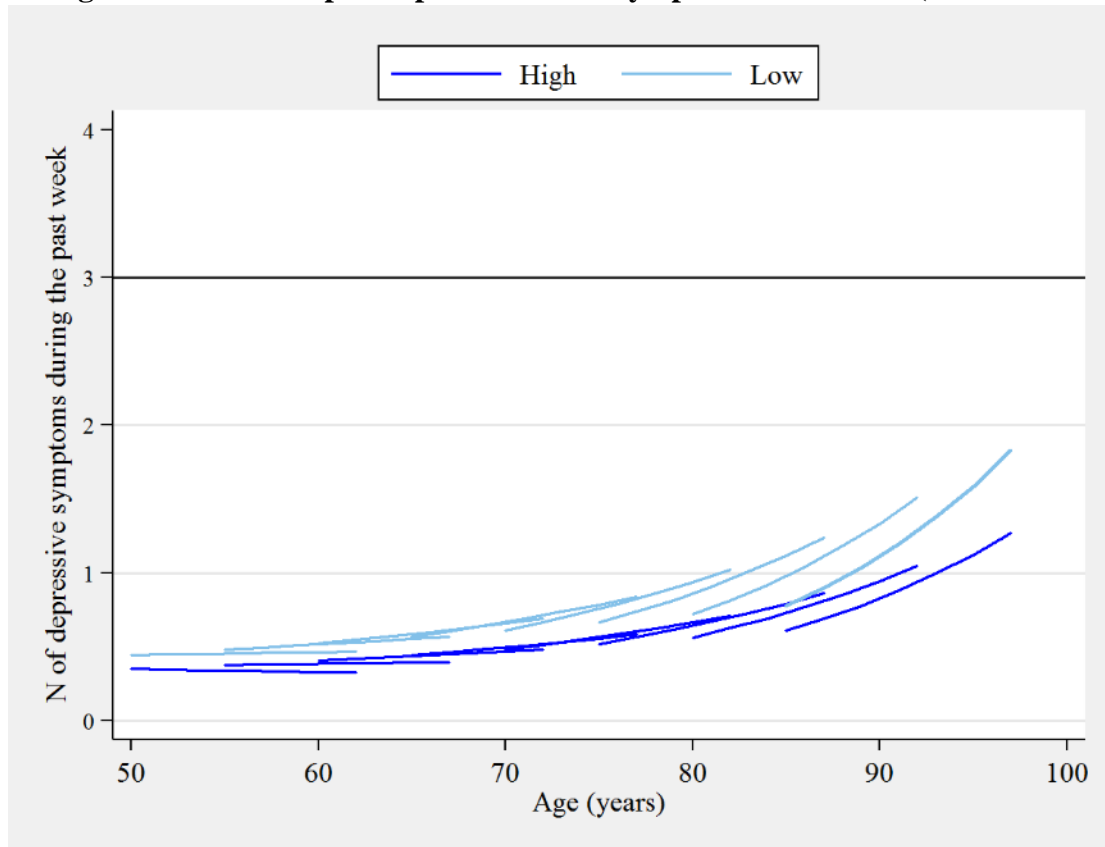
a: Adjusted for the covariates shown in the table, plus white/non-white group and self-reported ever doctor-diagnosis of depression.

b: Adjusted for the covariates shown in the table, plus white/non-white group, self-reported ever doctor-diagnosis of depression, educational qualification, work status, total non-pension wealth, self-rated health, and self-reported limiting long-term illness.

c: As the time scale (years) was divided by 12, the average slope and effect of covariates on the slope describe the total rate of change over the twelve-year study period.

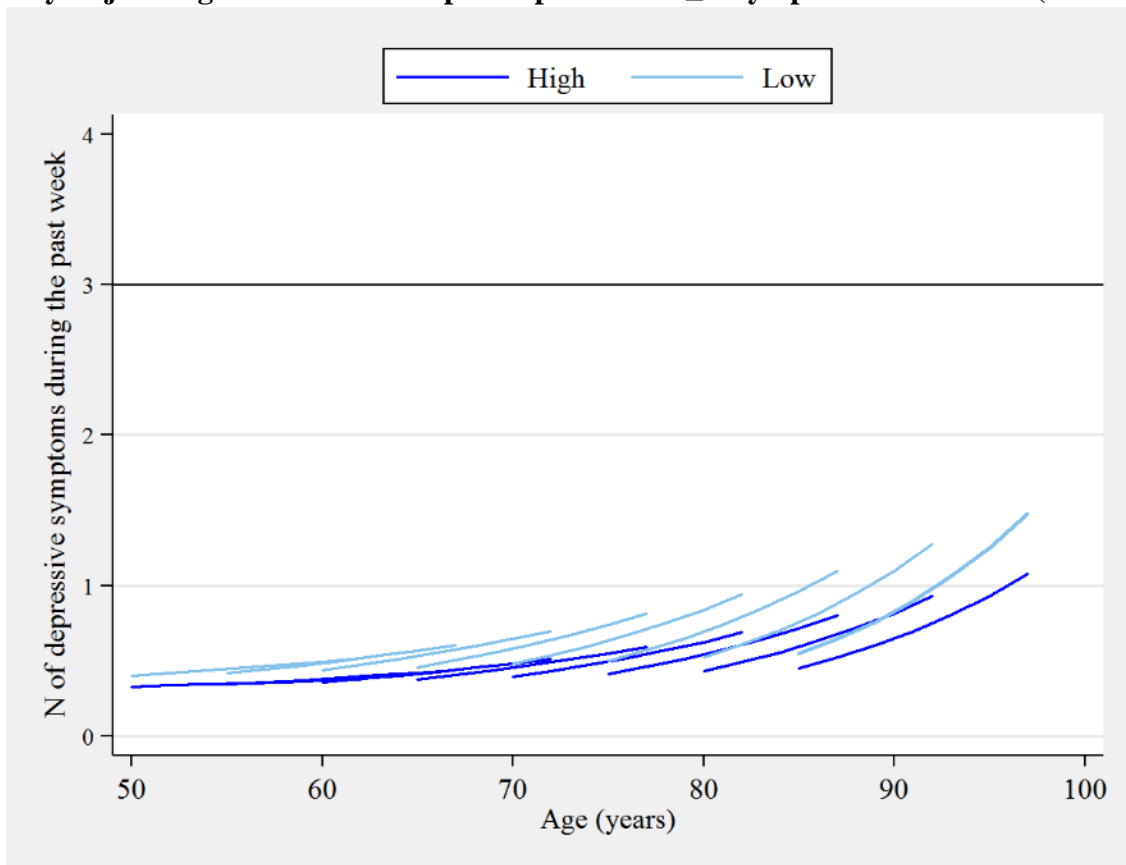
d: Centred at 65 years.

S3 Predicted 12-year ageing vectors of depressive symptoms by high and low perceived social cohesion from the initial growth model for participants with ≤ 2 symptoms at baseline (2002/3 – 2014/5)



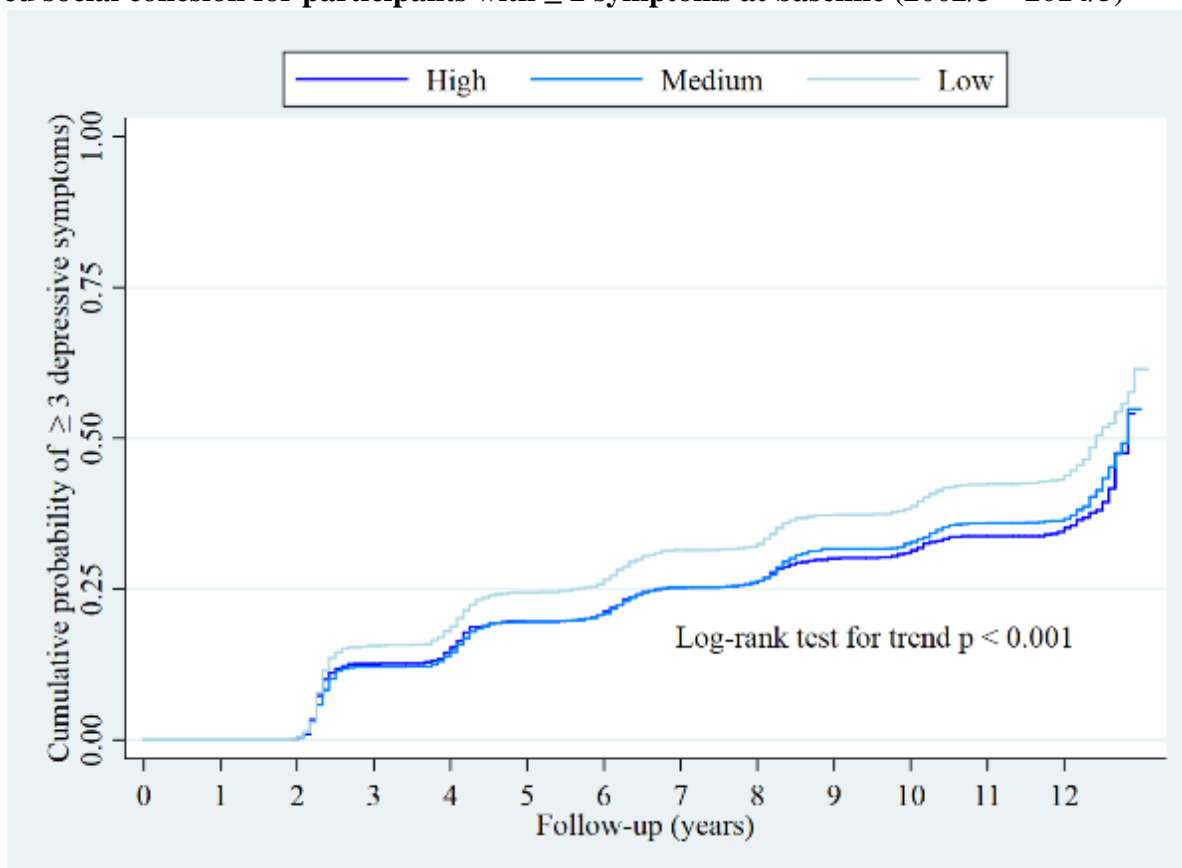
Note: Estimates are adjusted for gender, white/non-white group and self-reported ever doctor-diagnosis of depression.

S4 Predicted 12-year ageing vectors of depressive symptoms by high and low perceived social cohesion from the fully-adjusted growth model for participants with ≤ 2 symptoms at baseline (2002/3 – 2014/5)



Note: Estimates are adjusted for gender, white/non-white group, self-reported ever doctor-diagnosis of depression, educational qualification, work status, total non-pension wealth, self-rated health, and self-reported limiting long-term illness.

S5 Kaplan-Meier failure plot of incident probable depression ($3 \geq$ depressive symptoms) by tertiles of perceived social cohesion for participants with ≤ 2 symptoms at baseline (2002/3 – 2014/5)



Note: Follow-up time (months) was rescaled to years for ease of interpretation.

S6 Discrete time proportional hazard model of incident probable depression ($3 \geq$ depressive symptoms) by tertiles of perceived social cohesion for participants with ≤ 2 symptoms at baseline (2002/3 – 2014/5)

Estimates	Initial model ^a			Fully-adjusted model ^b		
	HR	SE	P	HR	SE	P
Female	1.529	0.069	<0.001	1.477	0.069	<0.001
Baseline age (years) ^c	1.042	0.003	<0.001	1.036	0.003	<0.001
Perceived social cohesion						
High	1.000	-	-	1.000	-	-
Medium	1.090	0.064	0.142	1.089	0.063	0.138
Low	1.437	0.082	<0.001	1.356	0.076	<0.001

a: Adjusted for the covariates shown in the table, plus white/non-white group and self-reported ever doctor-diagnosis of depression.

b: Adjusted for the covariates shown in the table, plus white/non-white group, self-reported ever doctor-diagnosis of depression, educational qualification, work status, total non-pension wealth, self-rated health, and self-reported limiting long-term illness.

c: Centred at 65 years.