

Table S1 Mean values, correlations, and network weights for the Young Adults network. The upper triangle shows the regularized partial correlations (network weights). The lower triangle displays the Pearson correlations between each pair of variables. The diagonal contains the mean and standard deviation for each variable of interest

	AGREEABLENESS	CONSCIENTIOUSNESS	EXTRAVERSION	NEUROTICISM	OPENNESS	PIC_SEQ	CARD_SORT	FLANKER	PROC_SPEED	LIST_SORT	ORAL_READ	DD_200	DD_40K	EMOTION_REC	WITHDRAWAL	THOUGHT_PROB	RULE_BREAK	EXTERNALIZING	ANTISOCIAL	HYPERACTIVITY	ANXIETY	DEPRESSION	HOSTILITY	AGGRESSION	REJECTION	STRESS	WELL_BEING	SELF_EFFICACY	SLEEP_QUALITY	PAIN_INTENSITY	PAIN_INTERFERENCE						
AGREEABLENESS	33.13 ± 5.83	0	0	0	0	0	0	0	0	0	0	0	0	0.07	-0.06	0	0	-0.06	-0.14	0	0	0	-0.07	-0.16	-0.06	0	0	0	0	0	0						
CONSCIENTIOUSNESS	0.25	34.66 ± 5.52	0.08	-0.11	0	0	0	0	0	0	0	0	0	0	0	-0.14	0	0	0	0	-0.1	0	0	0	0	0.06	0	0	0	0	0						
EXTRAVERSION	0.27	0.33	30.38 ± 5.87	-0.1	0	0	0	0	0	0	0	0	0	0	-0.23	0	0	0	0	0	0	0	0	0	0.06	0.05	0	0	0	0							
NEUROTICISM	-0.33	-0.43	-0.42	16.81 ± 7.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.24	0.15	0.06	0	0	0.25	0	-0.14	0	0	0.07								
OPENNESS	0.14	-0.15	-0.03	-0.04	28.07 ± 6.26	0	0	0	0	0	0.25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
PIC_SEQ	0.11	-0.09	0.03	-0.04	0.05	110.07 ± 13.27	0.07	0	0	0.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
CARD_SORT	0.15	0.02	-0.02	-0.09	-0.03	0.24	114.20 ± 10.99	0.31	0.21	0	0.08	0	0	0.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
FLANKER	0.11	-0.01	0.01	-0.07	-0.03	0.16	0.52	111.75 ± 10.49	0.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
PROC_SPEED	0.08	-0.08	-0.09	0.06	-0.02	0.16	0.45	0.46	111.22 ± 11.76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
LIST_SORT	0.11	0.03	0.07	-0.11	0.1	0.29	0.17	0.1	0.14	110.1 ± 11.32	0.16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
ORAL_READ	0.2	-0.12	-0.09	-0.11	0.4	0.23	0.26	0.13	0.18	0.32	115.56 ± 10.81	0	0.15	0.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-0.07	0							
DD_200	0.13	-0.02	0.05	-0.04	0.15	0.03	-0.01	-0.03	0.07	0.12	0.24	0.25 ± 0.2	0.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
DD_40K	0.13	-0.06	0.01	0.03	0.16	0.05	0.11	0.07	0.14	0.08	0.34	0.71	0.47 ± 0.29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
EMOTION_REC	0.23	-0.01	0.02	-0.07	0.05	0.2	0.26	0.14	0.19	0.17	0.25	0.02	0.09	35.63 ± 2.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
WITHDRAWAL	-0.38	-0.27	-0.5	0.4	0.1	-0.04	-0.05	-0.02	-0.03	-0.07	-0.05	-0.04	-0.08	-0.04	2.52 ± 2.54	0.2	0	0	0	0.06	0	0.24	0	0	0.1	0	0	0	0	0	0						
THOUGHT_PROB	-0.32	-0.19	-0.17	0.27	0.05	0.02	-0.06	-0.11	-0.06	-0.07	-0.14	-0.09	-0.14	0.01	0.53	2.24 ± 2.28	0.06	0.1	0	0.07	0	0.09	0	0	0	0	0	0	0	0	0	0					
RULE_BREAK	-0.39	-0.43	-0.02	0.13	0.18	0	-0.07	-0.12	-0.12	-0.1	-0.01	-0.07	-0.07	-0.05	0.36	0.47	2.95 ± 3.01	0.29	0.36	0	0	0	0	0	0	0	0	0	0	0	0	0					
EXTERNALIZING	-0.49	-0.37	-0.01	0.3	0.1	-0.04	-0.1	-0.08	-0.1	-0.05	-0.03	-0.04	-0.07	-0.06	0.46	0.53	0.82	9.35 ± 6.78	0.42	0.32	0	0.06	0	0	0	0	0	0	0	0	0						
ANTISOCIAL	-0.53	-0.37	-0.07	0.24	0.07	-0.07	-0.17	-0.11	-0.15	-0.13	-0.07	-0.1	-0.12	-0.12	0.41	0.47	0.83	0.87	3.51 ± 3.24	0	0	0	0	0.16	0	0	0	0	0								
HYPERACTIVITY	-0.35	-0.32	-0.05	0.3	0.02	0.03	-0.02	0	-0.03	-0.05	-0.05	-0.02	-0.02	0.01	0.44	0.46	0.5	0.69	0.52	2.59 ± 2.07	0	0.08	0	0	0.05	0	0	0	0	0							
ANXIETY	-0.17	-0.23	-0.2	0.65	0.03	0.01	-0.07	-0.04	0.05	-0.07	-0.09	-0.07	-0.07	0.06	0.41	0.41	0.2	0.41	0.31	0.4	3.99 ± 2.65	0.24	0	0	0	0.15	0	0	0.08	0	0						
DEPRESSION	-0.22	-0.43	-0.36	0.62	0.07	0.04	-0.02	-0.02	0.03	-0.07	-0.05	-0.07	-0.06	0.03	0.62	0.5	0.35	0.51	0.44	0.48	0.65	4.5 ± 3.67	0.11	0	0	0	-0.07	0	0.12	0	0	0					
HOSTILITY	-0.35	-0.29	-0.33	0.51	-0.06	-0.03	-0.04	-0.04	0.05	-0.03	-0.1	-0.04	-0.1	-0.05	0.42	0.32	0.24	0.34	0.31	0.32	0.46	0.51	5.06 ± 8.73	0	0.12	0.18	-0.1	-0.09	0	0	0	0					
AGGRESSION	-0.44	-0.22	-0.13	0.13	0.03	-0.19	-0.1	-0.1	-0.09	0.01	-0.05	-0.05	-0.08	-0.11	0.32	0.27	0.43	0.43	0.51	0.22	0.15	0.2	0.27	5.22 ± 9.24	0	0	0	0	0	0	0	0	0				
REJECTION	-0.35	-0.31	-0.36	0.46	0	-0.1	-0.02	0.02	0.06	-0.06	0.01	-0.05	-0.07	-0.08	0.45	0.21	0.23	0.32	0.28	0.36	0.36	0.37	0.49	0.28	48.82 ± 9.08	0.17	-0.16	0	0	0	0	0	0	0			
STRESS	-0.22	-0.32	-0.3	0.68	0.04	-0.1	-0.09	-0.04	0.05	-0.09	-0.09	-0.04	-0.04	-0.03	0.36	0.27	0.22	0.33	0.29	0.31	0.59	0.52	0.59	0.22	0.54	48.88 ± 9.58	-0.17	-0.18	0	0	0	0	0	0	0		
WELL_BEING	0.24	0.28	0.37	-0.47	-0.07	0.1	0.12	0.11	0.05	0.01	0.03	0.07	0.1	0	-0.42	-0.35	-0.29	-0.34	-0.34	-0.25	-0.43	-0.48	-0.48	-0.26	-0.5	-0.57	53.81 ± 9.37	0.1	0	0	0	0	0				
SELF_EFFICACY	0.12	0.34	0.34	-0.52	0.15	-0.01	0.04	-0.03	0.06	0.14	0.13	0.09	0.06	-0.27	-0.17	-0.03	-0.13	-0.11	-0.17	-0.39	-0.38	-0.45	-0.08	-0.31	-0.56	0.45	50.89 ± 9.1	0	0	0	0	0	0				
SLEEP_QUALITY	-0.19	-0.1	-0.08	0.24	0.07	0.04	-0.02	-0.05	-0.01	-0.03	-0.11	-0.12	-0.17	0.04	0.24	0.29	0.2	0.26	0.23	0.25	0.37	0.4	0.18	0.16	0.18	0.32	-0.28	-0.11	4.97 ± 2.79	0.07	0	0					
PAIN_INTENSITY	-0.14	-0.04	-0.14	0.25	-0.09	-0.11	-0.08	-0.05	-0.02	-0.07	-0.23	-0.11	-0.17	-0.07	0.16	0.15	0.03	0.13	0.1	0.24	0.2	0.19	0.12	0.13	0.22	-0.19	-0.23	0.26	1.31 ± 1.65	0.52	0	0	0	0	0		
PAIN_INTERFERENCE	-0.1	-0.15	-0.16	0.29	-0.03	0.01	-0.09	0	-0.05	-0.06	-0.13	-0.08	-0.07	-0.02	0.2	0.18	0.04	0.16	0.09	0.14	0.21	0.25	0.09	0.06	0.15	0.24	-0.16	-0.2	0.22	0.67	45.45 ± 7.43	0	0	0	0	0	0

Table S2 Mean values, correlations, and network weights for the Middle-Aged Adults network. The upper triangle shows the regularized partial correlations (network weights). The lower triangle displays the Pearson correlations between each pair of variables. The diagonal contains the mean and standard deviation for each variable of interest

Table S3 Mean values, correlations, and network weights for the Older Adults network. The upper triangle shows the regularized partial correlations (network weights). The lower triangle displays the Pearson correlations between each pair of variables. The diagonal contains the mean and standard deviation for each variable of interest

	AGREEABLENESS	CONSCIENTIOUSNESS	EXTRAVERSION	NEUROTICISM	OPENNESS	PIC_SEQ	CARD_SORT	FLANKER	PROC_SPEED	LIST_SORT	ORAL_READ	DD_200	DD_40K	EMOTION_REC	WITHDRAWAL	THOUGHT_PROB	RULE_BREAK	EXTERNALIZING	ANTISOCIAL	HYPERACTIVITY	ANXIETY	DEPRESSION	HOSTILITY	AGGRESSION	REJECTION	STRESS	WELL_BEING	SELF_EFFICACY	SLEEP_QUALITY	PAIN_INTENSITY	PAIN_INTERFERENCE					
AGREEABLENESS	36.09 ± 5.05	0	0	-0.17	0	0	0	0	0	0	0	0	0	0	-0.05	0	0	0	-0.07	0	0	0	-0.12	-0.09	0	0.08	0	0	0	0						
CONSCIENTIOUSNESS	0.33	35.86 ± 6.09	0.08	-0.14	0	0	0	0	0	0	0	0	0	0	0	-0.06	0	0	0	0	-0.11	0	0	0	0	0.14	0	0	0	0						
EXTRAVERSION	0.29	0.36	30 ± 5.78	-0.12	0	0	0	0	0	0	0	0	0	0	-0.09	0	0	0	0	0	0.22	0.1	0.2	0	0.06	0.12	0	-0.06	0	0	0					
NEUROTICISM	-0.47	-0.47	-0.41	12.83 ± 6.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.22	0.1	0.2	0	0.06	0.12	0	-0.06	0	0	0							
OPENNESS	0.17	0.14	0.1	-0.21	30.11 ± 5.76	0	0	0	0	0	0.07	0	0	0	0	0	0	0	0	0	0	0	0	0	0.08	0	0	0	0	0						
PIC_SEQ	0.12	0.04	-0.04	0.06	0.12	96.16 ± 12.73	0	0.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
CARD_SORT	-0.02	0.07	-0.05	-0.06	0.18	0.24	101.27 ± 8.54	0.32	0.06	0.18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
FLANKER	0.1	0.11	-0.03	-0.17	0.2	0.28	0.55	93.94 ± 8.6	0.24	0.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
PROC_SPEED	0.07	0.03	-0.06	-0.08	0.06	0.21	0.34	0.46	90.84 ± 17.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
LIST_SORT	0.13	0.1	-0.03	-0.17	0.21	0.23	0.41	0.35	0.2	96.94 ± 10.94	0.11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
ORAL_READ	0.13	0.08	-0.08	-0.1	0.25	0.17	0.2	0.22	0.04	0.3	110.56 ± 7.16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
DD_200	0.01	-0.06	0	-0.06	0.08	-0.01	0.08	0.11	0.07	0.09	0.16	0.3 ± 0.21	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
DD_40K	-0.06	-0.16	-0.14	0.05	0.08	0.02	0.07	0.11	0.01	0.06	0.18	0.78	0.46 ± 0.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
EMOTION_REC	0.02	0.02	0.08	0.09	0.12	0.16	0.19	0.21	0.12	0.09	0.17	0.02	0.05	33 ± 3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
WITHDRAWAL	-0.29	-0.2	-0.31	0.23	-0.05	-0.02	-0.03	-0.01	0.05	0.01	0.07	0.1	0.07	-0.14	3.36 ± 0.69	0.12	0	0	0	0	0.06	0	0	0.07	0	0	0	0	0	0	0					
THOUGHT_PROB	-0.25	-0.18	-0.08	0.31	0.11	-0.09	-0.01	-0.05	-0.07	-0.02	0.01	-0.01	0.03	-0.03	0.35	6.66 ± 0.89	0.07	0	0	0.05	0.1	0.09	0	0	0	0.06	0	0	0	0	0					
RULE_BREAK	-0.15	-0.31	-0.09	0.26	-0.09	0.02	0.02	-0.08	0.01	0.01	0.01	-0.02	-0.03	-0.11	0.18	0.36	4.32 ± 0.56	0.44	0	0.27	0	0	0	0	0	0	0	0	0	0	0					
EXTERNALIZING	-0.32	-0.24	-0.13	0.34	-0.12	0.01	0.03	-0.06	0.01	-0.02	0.07	0	0	-0.1	0.24	0.35	0.79	7.65 ± 0.86	0.58	0	0	0	0	0	0	0	0	0	0	0						
ANTISOCIAL	-0.34	-0.14	-0.13	0.28	-0.07	0.04	0.06	-0.01	0.06	-0.01	0.13	0.04	0.05	-0.09	0.27	0.22	0.44	0.86	6.4 ± 0.62	0	0	0	0	0	0	0	0	0	0	0						
HYPERACTIVITY	-0.18	-0.27	0.01	0.27	-0.05	-0.04	0.07	-0.03	0.05	0.04	-0.05	-0.08	-0.08	-0.05	0.09	0.33	0.58	0.48	0.22	3.79 ± 1	0.09	0	0	0	0	0.05	0	0	0	0	0					
ANXIETY	-0.19	-0.23	-0.24	0.57	-0.09	0.05	0.02	0	0.05	-0.01	0.07	-0.06	0.03	-0.08	0.31	0.4	0.3	0.38	0.31	0.37	6.17 ± 1.43	0.26	0	0	0	0.08	0	0	0	0	0					
DEPRESSION	-0.15	-0.41	-0.33	0.51	-0.1	0.02	-0.06	-0.06	0	-0.08	0.03	-0.06	0.06	-0.03	0.33	0.39	0.26	0.34	0.29	0.28	0.6	13.83 ± 2.18	0	0	0	0.05	0	0	0.26	0	0					
HOSTILITY	-0.34	-0.18	-0.24	0.51	-0.1	-0.04	0.02	-0.11	-0.06	-0.1	-0.08	-0.09	-0.02	0.02	0.22	0.23	0.07	0.22	0.25	0.1	0.34	0.34	7.76 ± 3.9	0.09	0.14	0.14	0	0	0	0	0	0				
AGGRESSION	-0.33	-0.06	-0.1	0.2	-0.04	0.01	0.13	0.1	0.15	0.07	0.04	-0.04	-0.01	0.11	0.18	0.06	0.06	0.21	0.25	0.09	0.11	0.11	0.3	5.68 ± 1.5	0	0	0	0	0	0	0	0	0			
REJECTION	-0.37	-0.21	-0.19	0.43	-0.14	-0.05	-0.05	-0.14	0	-0.1	-0.11	-0.04	-0.01	0	0.31	0.26	0.2	0.28	0.24	0.26	0.34	0.36	0.44	0.15	13.51 ± 4.60	0.23	0	0	0	0	0	0	0	0		
STRESS	-0.38	-0.35	-0.28	0.53	-0.1	-0.02	0	-0.02	0.03	-0.17	-0.08	-0.07	0.03	0.01	0.25	0.34	0.23	0.28	0.26	0.32	0.45	0.44	0.47	0.2	0.53	20.64 ± 4.94	-0.11	-0.16	0	0	0	0	0	0		
WELL_BEING	0.32	0.27	0.32	-0.34	0	-0.02	-0.07	-0.01	-0.08	0.05	0.07	0.02	-0.04	-0.03	-0.21	-0.11	-0.05	-0.08	-0.09	-0.07	-0.12	-0.24	-0.24	-0.1	-0.27	-0.36	24.8 ± 10.54	0	0	0	0	0	0			
SELF_EFFICACY	0.21	0.4	0.36	-0.38	0.27	-0.01	0.05	0.1	-0.01	0.12	0.02	0.11	0.05	0.02	-0.16	-0.12	-0.19	-0.14	-0.23	-0.29	-0.3	-0.21	-0.11	-0.28	-0.43	0.18	21.58 ± 10.2	0	0	0	0	0	0			
SLEEP_QUALITY	-0.14	-0.25	-0.15	0.32	-0.05	-0.1	-0.07	-0.05	0	-0.08	-0.06	0.02	0.06	-0.03	0.1	0.2	0.11	0.18	0.14	0.26	0.34	0.5	0.17	0.07	0.23	0.32	-0.17	-0.23	4.67 ± 2.71	0.07	0	0				
PAIN_INTENSITY	-0.12	-0.15	-0.21	0.23	-0.13	0.01	-0.06	-0.14	-0.06	-0.02	-0.02	0	0.06	-0.04	0.15	0.12	0.04	0.11	0.11	0.2	0.22	0.19	0.05	0.21	0.22	-0.14	-0.23	0.26	2.15 ± 1.94	0	0	0	0	0	0	
PAIN_INTERFERENCE	0.02	0.04	-0.15	0.04	0	-0.1	0	-0.07	-0.08	-0.03	-0.04	-0.08	-0.01	-0.02	0	0.02	0.07	0	-0.06	-0.09	-0.04	-0.02	0.1	-0.05	-0.01	-0.02	0.02	0.05	-0.06	8.7 ± 2.97	0	0	0	0	0	0

Table S4 List of the variables included in the study and the communities they were clustered in, across the three age groups

Variable	Community (Young Adults)	Community (Middle-aged Adults)	Community (Older Adults)
Agreeableness	Externalizing	Externalizing	Mental_Health
Conscientiousness	Mental_Health	Mental_Health	Mental_Health
Extraversion	Mental_Health	Mental_Health	Mental_Health
Neuroticism	Mental_Health	Mental_Health	Mental_Health
Openness	High_Cognition	Cognition	Cognition
Pic_Seq	High_Cognition	Cognition	Cognition
Card_Sort	High_Cognition	Cognition	Cognition
Proc_Speed	Low_Cognition	Cognition	Cognition
List_Sort	Low_Cognition	Cognition	Cognition
Flanker	Low_Cognition	Cognition	Cognition
Oral_Read	High_Cognition	Cognition	Cognition
Emotion_Rec	High_Cognition	Cognition	Cognition
DD_40K	Delay_Discount	Delay_Discount	Delay_Discount
DD_200	Delay_Discount	Delay_Discount	Delay_Discount
WithDrawal	Mental_Health	Mental_Health	Mental_Health
Thought_Prob	Mental_Health	Mental_Health	Mental_Health

Rule_Break	Externalizing	Externalizing	Externalizing
Externalizing	Externalizing	Externalizing	Externalizing
Antisocial	Externalizing	Externalizing	Externalizing
Anxiety	Mental_Health	Mental_Health	Mental_Health
Hyperactivity	Mental_Health	Externalizing	Externalizing
Depression	Mental_Health	Mental_Health	Mental_Health
Aggressivity	Externalizing	Externalizing	Mental_Health
Hostility	Mental_Health	Mental_Health	Mental_Health
P_Rejection	Mental_Health	Mental_Health	Mental_Health
P_Stress	Mental_Health	Mental_Health	Mental_Health
Self_Efficacy	Mental_Health	Mental_Health	Mental_Health
Well_Being	Mental_Health	Mental_Health	Mental_Health
Sleep_Quality	Mental_Health	Mental_Health	Mental_Health
Pain_Intensity	Pain	Mental_Health	Mental_Health
Pain_Interference	Pain	Mental_Health	Mental_Health

Table S5 List of the edges that resulted to be significantly different between the networks estimated from the Young Adults and the Midde-aged Adults groups ($p_{FDR} < .05$). Each node is codified by colour for the corresponding community (Dark Green = High_Cognition; Light Green = Low_Cognition / Cognition; Light Blue = Mental Health; Red = Externalizing; Purple = Pain). Differences are listed in descending order (absolute values)

Young_Network	Middle-aged_Network	Difference	p.value (FDR)
PAIN_INTENSITY	PAIN_INTERFERENCE	0.62	0.02
EXTERNALIZING	ANTISOCIAL	0.19	0.02
NEUROTICISM	HOSTILITY	0.17	0.02
P_REJECTION	PAIN_INTENSITY	0.12	0.02
ANTISOCIAL	AGGRESSIONIVITY	0.12	0.02
NEUROTICISM	PAIN_INTERFERENCE	0.11	0.02
HOSTILITY	SELF_EFFICACY	0.09	0.02
CONSCIENTIOUSNESS	WELL_BEING	0.07	0.02
EXTERNALIZING	THOUGHT_PROB	0.07	0.02
DEPRESSION	HOSTILITY	0.06	0.02
HOSTILITY	WELL_BEING	0.06	0.02
EXTERNALIZING	DEPRESSION	0.06	0.02
NEUROTICISM	THOUGHT_PROB	0.05	0.02
WITHDRAWAL	HOSTILITY	0.05	0.02
HYPERACTIVITY	P_REJECTION	0.05	0.02
THOUGHT_PROB	SLEEP_QUALITY	0.05	0.02
P_REJECTION	WELL_BEING	0.04	0.02
DEPRESSION	ORAL_READ	0.04	0.02
AGGRESSIONIVITY	PIC_SEQ	0.04	0.05
ANXIETY	HOSTILITY	0.03	0.02
ANXIETY	P_STRESS	0.03	0.02
DEPRESSION	P_STRESS	0.03	0.02
AGGRESSIONIVITY	WITHDRAWAL	0.03	0.04
AGGRESSIONIVITY	PAIN_INTENSITY	0.03	0.05
DEPRESSION	FLANKER	0.02	0.02
ANTISOCIAL	PROC_SPEED	0.02	0.05
AGGRESSIONIVITY	RULE_BREAK	0.02	0.02
ANTISOCIAL	CONSCIENTIOUSNESS	0.02	0.02
ANTISOCIAL	SLEEP_QUALITY	0.01	0.04

Table S6 List of the edges that resulted to be significantly different between the networks estimated from the Young Adults and the Older Adults groups ($p_{FDR} < .05$). Each node is codified by colour for the corresponding community (Dark Green = High_Cognition; Light Green = Low_Cognition / Cognition; Light Blue = Mental Health; Red = Externalizing; Purple = Pain). Differences are listed in descending order (absolute values)

Young_Network	Older_Network	Difference	p.value (FDR)
PAIN_INTENSITY	PAIN_INTERFERENCE	0.52	0.02
RULE_BREAK	ANTISOCIAL	0.36	0.02
EXTERNALIZING	HYPERACTIVITY	0.32	0.02
P_STRESS	SELF_EFFICACY	0.18	0.02
P_STRESS	WELL_BEING	0.17	0.02
P_REJECTION	WELL_BEING	0.16	0.02
ANTISOCIAL	AGGRESSION	0.16	0.02
DEPRESSION	HOSTILITY	0.11	0.02
HOSTILITY	WELL_BEING	0.10	0.02
EXTERNALIZING	THOUGHT_PROB	0.10	0.02
HOSTILITY	SELF_EFFICACY	0.09	0.04
NEUROTICISM	INTERFERENCE	0.07	0.04
NEUROTICISM	HOSTILITY	0.06	0.02
EXTERNALIZING	DEPRESSION	0.06	0.02
HYPERACTIVITY	P_REJECTION	0.05	0.02
RULE_BREAK	AGGRESSION	0.04	0.02
PIC_SEQ	AGGRESSION	0.04	0.02
ANXIETY	HOSTILITY	0.03	0.02
HYPERACTIVITY	P_STRESS	0.01	0.02
DEPRESSION	P_STRESS	0.01	0.02
P_STRESS	INTENSITY	0.01	0.04
AGREEABLENESS	WELL_BEING	0.01	0.02
ANTISOCIAL	CONSCIENTIOUSNESS	0.01	0.04
RULE_BREAK	HYPERACTIVITY	0.01	0.02
AGREEABLENESS	P_STRESS	0.00	0.02

Table S7 List of the edges that resulted to be significantly different between the networks estimated from the Middle-aged Adults and the Older Adults groups ($p_{FDR} < .05$). Each node is codified by colour for the corresponding community (Green = Cognition; Light Blue = Health; Red = Externalizing). Differences are listed in descending order (absolute values)

Middle-aged_Network	Older_Network	Difference	p.value (FDR)
RULE_BREAK	ANTISOCIAL	0.28	0.02
RULE_BREAK	HYPERACTIVITY	0.27	0.02
EXTERNALIZING	HYPERACTIVITY	0.21	0.02
RULE_BREAK	EXTERNALIZING	0.15	0.02
AGREEABLENESS	EXTERNALIZING	0.10	0.02
ORAL_READ	WITHDRAWAL	0.06	0.02
NEUROTICISM	THOUGHT_PROB	0.05	0.02
ANTISOCIAL	HOSTILITY	0.03	0.02
EXTERNALIZING	P_STRESS	0.03	0.02
CARD_SORT	EXTERNALIZING	0.03	0.02
CONSCIENTIOUSNESS	EXTERNALIZING	0.02	0.02
NEUROTICISM	EXTERNALIZING	0.02	0.02
EXTERNALIZING	DEPRESSION	0.02	0.02
EXTERNALIZING	HOSTILITY	0.02	0.02
EXTERNALIZING	P_REJECTION	0.02	0.02
AGREEABLENESS	ANTISOCIAL	0.02	0.02
ANXIETY	SLEEP_QUALITY	0.01	0.02
ANTISOCIAL	DEPRESSION	0.01	0.02
CONSCIENTIOUSNESS	RULE_BREAK	0.00	0.02