

Cognitive correlates of mental health in adolescence: A network analysis approach

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## Abstract

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11 This is my abstract

12 *Keywords:* keywords

13 Word count: X

Table 1

	mean	sd	(1)	(2)	(3)	(4)	(5)	(6)	(7)
MH (1)	40.72	12.58							
IB_S_Pos (2)	2.55	0.62	.37						
IB_N_Pos (3)	3.53	0.64	.33	.40					
IB_S_Neg (4)	3.29	0.88	-.25	-.26	-.17				
IB_N_Neg (5)	3.17	0.72	-.15	-.00	-.19	.51			
MB_Pos (6)	6.83	2.87	.40	.30	.21	-.24	-.15		
MB_Neg (7)	2.50	2.34	-.43	-.28	-.25	.42	.24	-.29	

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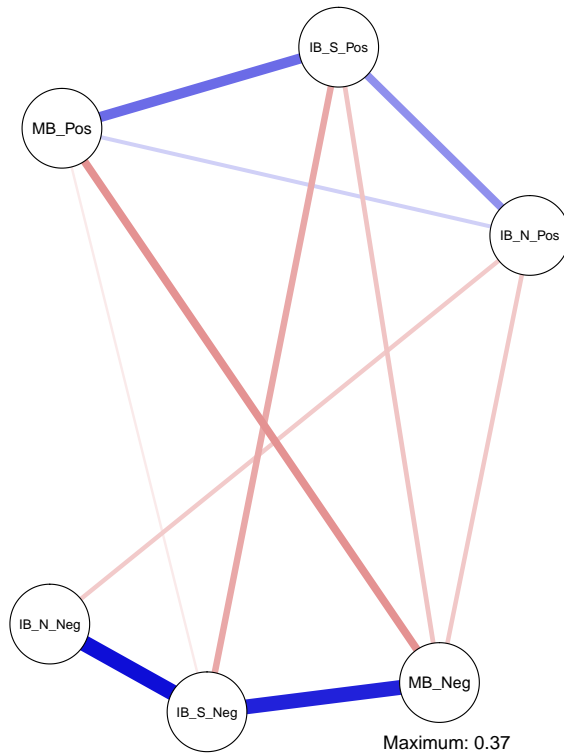
Background:

The data are drawn from the CogBIAS longitudinal study (wave 1 only). Analysed are the DVs from the interpretation bias task, memory bias task, and mental health questionnaire.

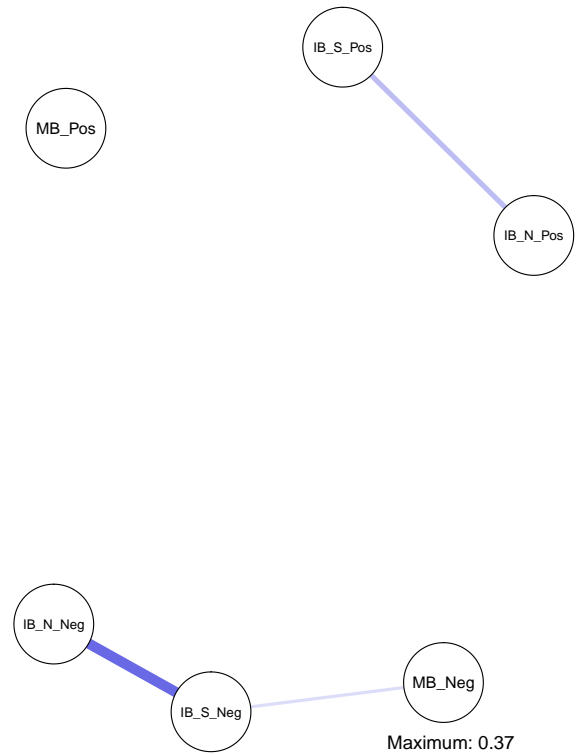
### Comparing groups high and low in positive mental health

Figure 1 presents regularised partial correlations amongst interpretation and memory biases.

low – MH plot



high – MH plot



22

23 **network comparisons.** We compared the estimated networks using  
 24 NetworkComparisonTest with 1000 iterations. Global strength in the high MH group (0.37)  
 25 differed from that in the low MH group (1.70),  $p = .015$ . There was no significant difference  
 26 between global strength in the low MH group and the mid MH group (0.73).

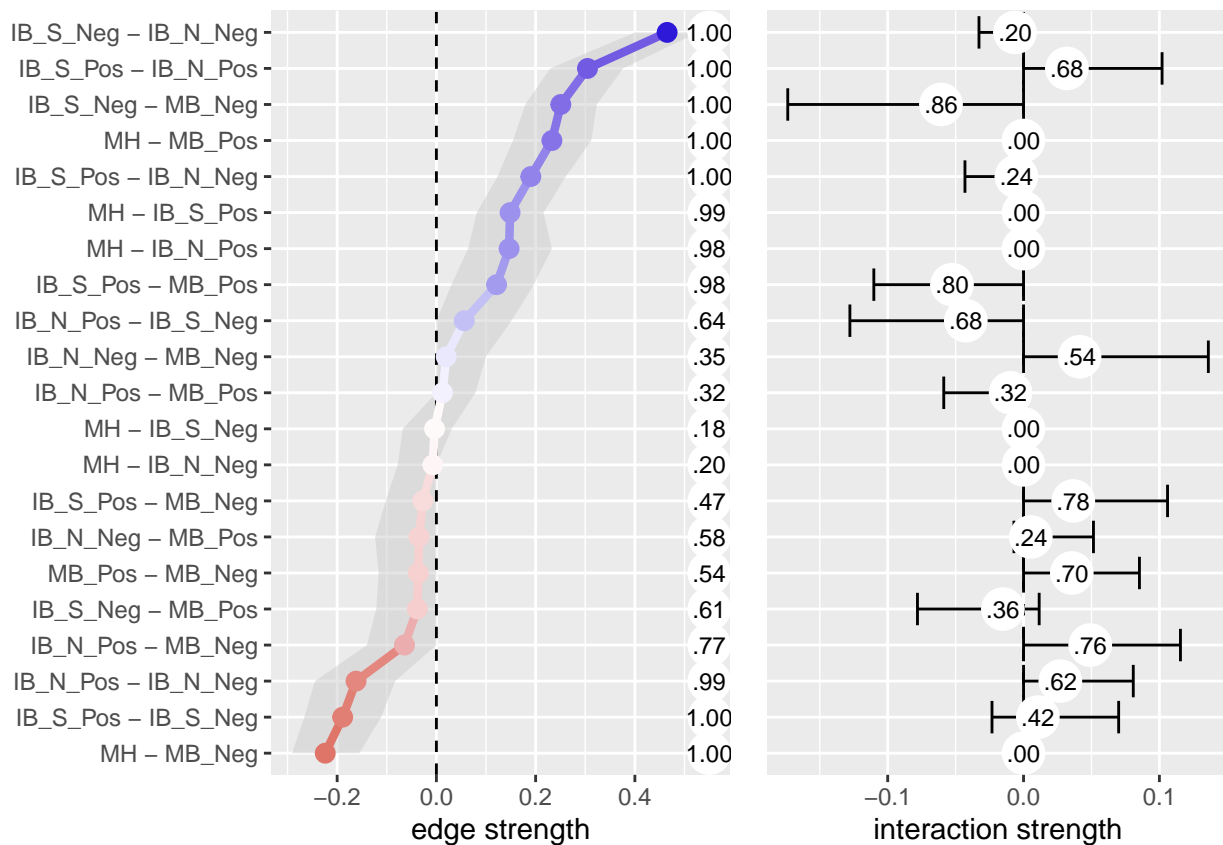
## Including Mental Health in the model

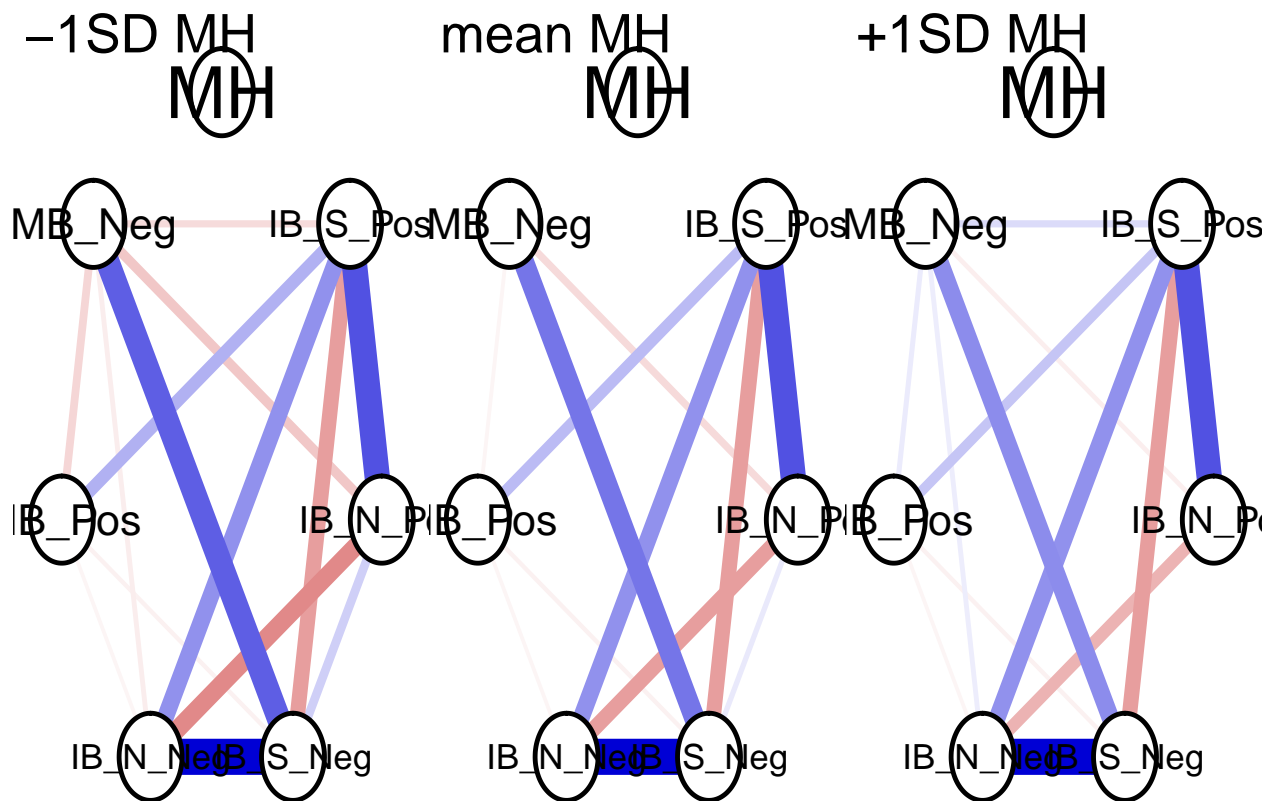
We explored the difference in models between high and low groups using the `mgm` package. Figure 2 presents the network including mental health as a categorical variable (only for high and low MH groups).

Note. the shaded area of the “pie” is the predicability of that node, i.e. the variance explained in that variable by the rest of the network. (I also need to include a more detailed explanation of why MH is different here as a categorical variable).

this network shows largely the same pattern as splitting by the high and low group. Some of the edges appear to be moderated by mental health.

### moderated network.





## References