

## *Supplementary Material*

**Supplementary Table S1.** Multivariate regression models assessing the association between BMI and hippocampal subfield volumes.

Model	Hippocampal subfields	$\beta$ (95% CI)	$t$	$p$	Adjusted $R^2$ ( $p$ -value)
Overall-unadjusted <sup>1</sup>	Fissure	4.210 (−0.326, 8.747)	1.854	0.068	0.036 (0.068)
Female-unadjusted <sup>1</sup>	Fissure	9.100 (2.994, 15.206)	3.032	<b>0.005*</b>	0.194 (0.005)
Overall-adjusted <sup>2</sup>	Fissure	4.559 (0.209, 8.908)	2.097	<b>0.040*</b>	0.253 (0.000)
Female-adjusted <sup>2</sup>	Fissure	7.732 (1.206, 14.258)	2.420	<b>0.022*</b>	0.173 (0.045)

Model 1 unadjusted

Model 2 includes age, education, and eTIV as covariates.

The  $p$ -values with “\*” indicate a significant correlation.

**Supplementary Table S2** Multivariate regression models assessing the association between BMI and cognitive functions in females.

Model	Cognitive functions	$\beta$ (95% CI)	$t$	$p$	Adjusted $R^2$ ( $p$ -value)
Female-unadjusted <sup>1</sup>	Coding	−1.505 (−3.038,0.029)	−1.996	0.054	0.081 (0.054)
	Story recall	−0.162 (−0.498,0.174)	−0.983	0.333	−0.001 (0.333)
	RBANS total score	−0.936 (−2.631,0.758)	−1125	0.269	0.008 (0.269)
Female-adjusted <sup>2</sup>	Coding	−0.367 (−0.674, −0.060)	−2.438	<b>0.021*</b>	0.320 (0.003)
	Story recall	−1.794 (−3.447, −0.141)	−2.216	<b>0.034*</b>	0.131 (0.083)
	RBANS total score	−1.741 (−3.380, −1.101)	−2.168	<b>0.038*</b>	0.244 (0.014)

Model 1 unadjusted

Model 2 includes age, education, and CMMSE as covariates.

The  $p$ -values with “\*” indicate a significant correlation.