

**Supplementary Table 3.** Mendelian randomization instrumental variable analysis of the association of MetS with DWRT, IWRT, and MMSE scores in the Guangzhou Biobank Cohort Study, 2003 to 2008

Variable	No. of participants	$\beta$ (95% CI)	P value
DWRT <sup>a</sup> MR (two-stage estimation, F-statistic=53)			
MetS <sup>b</sup>	2,613	-0.18 (-1.27 to 0.91)	0.74
IWRT <sup>a</sup> MR (two-stage estimation, F-statistic=53)			
MetS <sup>b</sup>	2,613	-1.28 (-3.68 to 1.13)	0.29
MMSE <sup>a</sup> MR (two-stage estimation, F-statistic=8)			
MetS <sup>b</sup>	677	-0.01 (-0.02 to 0.01)	0.98

MetS, metabolic syndrome; DWRT, delayed 10-word recall test; IWRT, immediate 10-word recall test; MMSE, mini-mental state examination; CI, confidence interval; MR, Mendelian randomization.

<sup>a</sup> $\beta$  and 95% CI were adjusted for sex and age, <sup>b</sup> $R^2$  of the regression of MetS on instrumental variable was 0.0268.