(partial) correlations showed significant associations between whole blood serotonin and BMI ($r=-0.284$, p=0.021) and waist circumference ($r=-0.325$, p=0.008). The correlational nature of these analyses do not enable conclusions to be drawn as to cause and effect but suggest an interplay between obesity and lower whole blood serotonin levels.

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**Methods** Analyses are based on 9,333 participants from the British Whitehall II study, aged 35–55 years at baseline (1985). SEP was civil service employment grade at baseline and social support was assessed 3 times over a follow-up for mortality of 24.4 years.

**Results** Measures of social support were socially patterned, but the pattern differed by gender. In men, social isolation and marital status were predictors of all-cause (HR=1.27, 95% CI 1.07 to 1.52 for low network score and HR=1.77; 95% CI 1.45 to 2.16 for not being married) and cardiovascular mortality (HR=1.85; 95% CI 1.56 to 2.51 for low network score and HR=2.69; 95% CI 1.95 to 3.71 for not being married). These associations were partially attenuated after adjustment for self-rated health. Men in the lowest SEP had an higher mortality risk than those in the highest (HR=1.59; 95% CI 1.21 to 2.08 for all-cause and HR=2.48; 95% CI 1.55 to 3.92 for cardiovascular mortality). Network score and marital status attenuated these associations by 27% (95% CI 14% to 43%) and 29% (95% CI 17% to 52%), respectively. In women, there was no consistent association between social support and mortality.

**Conclusions** The associations of social support with SEP and with mortality differ by gender. In men, social isolation and in particular not being married are important risk factors for mortality and are also likely to contribute to social inequalities in health.