human reproduction

SUPPLEMENTARY DATA

Supplementary Table SI Estimated percent changes and 95% CIs for semen quality parameters associated with underweight, overweight and obesity compared with normal weight based on Chinese criteria for BMI category[a].

Characteristic	Underweight ($n = 1815$)		Normal ($n = 19\,976$)	Overweight ($n = 7068$)		Obese ($n = 1090$)	
	Percent change (95% CI)	P	Percent change (95% CI)	Percent change (95% CI)	P	Percent change (95% CI)	P
Semen volume, ml	−3.7 (−7.9, 0.6)	0.09	0 (ref.)	−3.2 (−5.6, −0.8)	0.009	−1.9 (−7.1, 3.5)	0.48
Sperm concentration, 10^6/ml	−3.0 (−5.8, −0.1)	0.043	0 (ref.)	0.4 (−1.3, 2.0)	0.65	−0.5 (−4.1, 3.2)	0.79
Total sperm number, 10^6	−6.8 (−11.4, −2.0)	0.006	0 (ref.)	−2.8 (−5.5, −0.0)	0.048	−2.7 (−8.6, 3.5)	0.39
Total motility, %	−0.7 (−2.1, 0.7)	0.33	0 (ref.)	0.2 (−0.6, 1.0)	0.56	0.5 (−1.3, 2.3)	0.60
Progressive motility, %	−0.6 (−2.1, 1.0)	0.46	0 (ref.)	0.3 (−0.6, 1.2)	0.52	0.8 (−1.1, 2.8)	0.40
Total motile sperm count, 10^6	−7.5 (−12.5, −2.3)	0.006	0 (ref.)	−2.6 (−5.5, 0.5)	0.10	−2.1 (−8.5, 4.8)	0.54

N refers to the number of subjects in each BMI category.

[a]BMI was categorized using the Chinese criteria: underweight (<18.5 kg/m^2), normal weight (18.5–23.9 kg/m^2), overweight (24–27.9 kg/m^2) and obese (≥ 28 kg/m^2). The number of underweight, normal weight, overweight and obese subjects were 222, 2677, 923 and 144, respectively. Linear mixed models were used to estimate percent changes and 95% CIs with adjustment for age, ethnicity, education, smoking, marital status, abstinence period and season.