

**Supplementary Materials:**

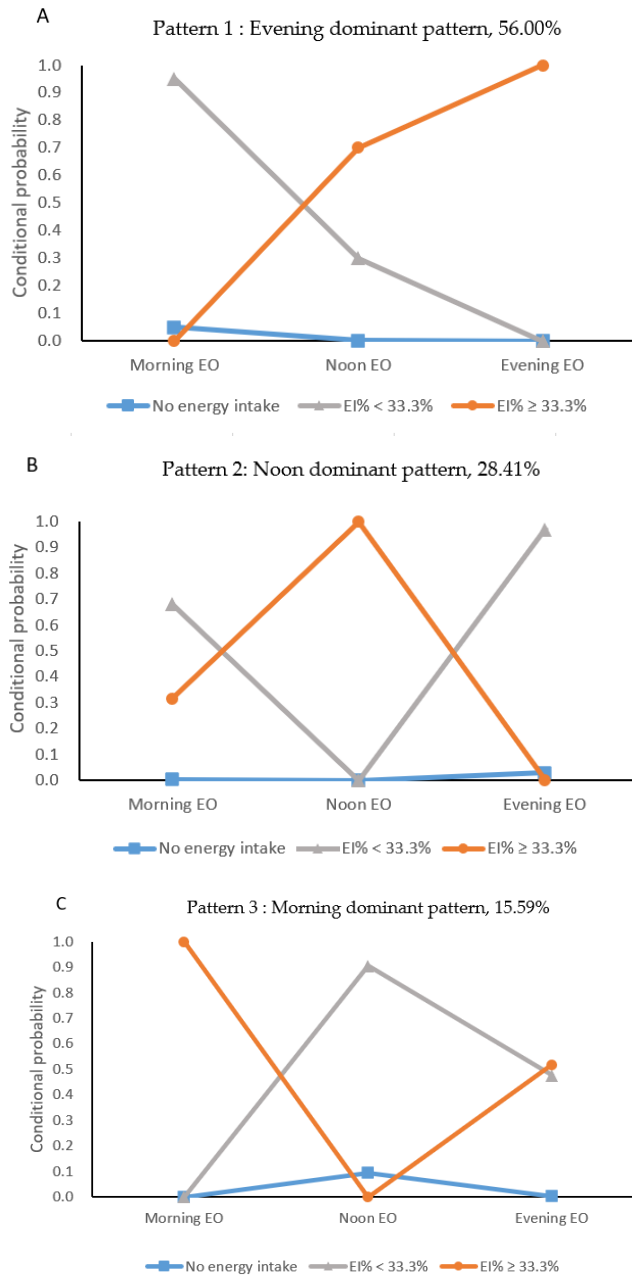
**Table S1:** Sociodemographic characteristics, lifestyles, eating pattern profile, and cardiometabolic risk factors of the overall participants

Variables	Mean (SD) %
Sociodemographic characteristics and lifestyles	
Age (y, mean (SD))	50.36(14.22)
Gender	
Man	3913 (44.84)
Woman	4813 (55.16)
Education level (%)	
Very low	2510 (28.76)
Low	3005 (34.44)
Medium	1970 (22.58)
High	1241 (14.22)
Geographic region (%)	
City	1710 (19.60)
Suburban	1493 (17.11)
Town or county	1476 (16.91)
Rural village	4047 (46.38)
Physical activity (%)	
Light	2317 (26.55)
Medium	3087 (35.38)
Heavy	3322 (38.07)
Sleep duration (%)	
Normal	6971(79.89)
Short	220(2.52)
Long	1535(17.59)
Smoking (%)	
Nonsmoker	6472 (74.17)
Ex-smoker	189 (2.17)
Current smoker	2065 (23.66)
Alcohol drinking (%)	
Nondrinker	6274 (71.90)
Drink less than 1 time/month	460 (5.27)
Drink 1-2 times/month	560 (6.42)
Drink 1-4 times/week	792 (9.08)
Drink everyday	640 (7.33)
Per capita household income	
Low	5252 (60.19)
Medium	3252 (37.27)
High	222 (2.54)
Urbanicity (mean (SD))	71.81(17.55)

Eating pattern profile	
EI% from Meals (mean (SD))	96.98(5.52)
EI% from Snacks (mean (SD))	3.02(5.52)
Cardiometabolic risk factors	
BMI (mg/kg, mean (SD))	23.78(3.61)
SBP (mmHg, mean (SD))	124.15(16.89)
DBP (mmHg, mean (SD))	79.65(10.33)
TC (mmol/L, mean (SD))	4.89(1.05)
TG (log mmol/L, mean (SD))	0.16(0.58)
LDL_C (mmol/L, mean (SD))	3.09(0.89)
HDL_C (mmol/L, mean (SD))	1.29(0.33)
Glucose (log mmol/L, mean (SD)) <sup>1</sup>	1.65(0.18)
Insulin (log $\mu$ U/mL, mean (SD)) <sup>1</sup>	1.77(0.64)
HOMA-IR (log mean (SD)) <sup>1</sup>	0.30(0.71)

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<sup>1</sup>Log-transformation was conducted to improve normality. SD, standard deviation; BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; TC, total cholesterol; TG, plasma total triglycerides; HDL\_C, high-density lipoprotein cholesterol; LDL\_C, low-density lipoprotein cholesterol; HOMA-IR, insulin resistance assessed by homeostasis model.



**Figure 1.** Conditional probability of proportion of energy intake across EOs in a day by latent class membership in Chinese adults. (A) “Noon dominant pattern”; (B) “Evening dominant pattern”; (C) “Morning dominant pattern”. EI% < 33.3% indicates energy contributed less than 33.3% total energy intake; EI% ≥ 33.3% indicates energy contributed more than or equal to 33.3% total energy intake.