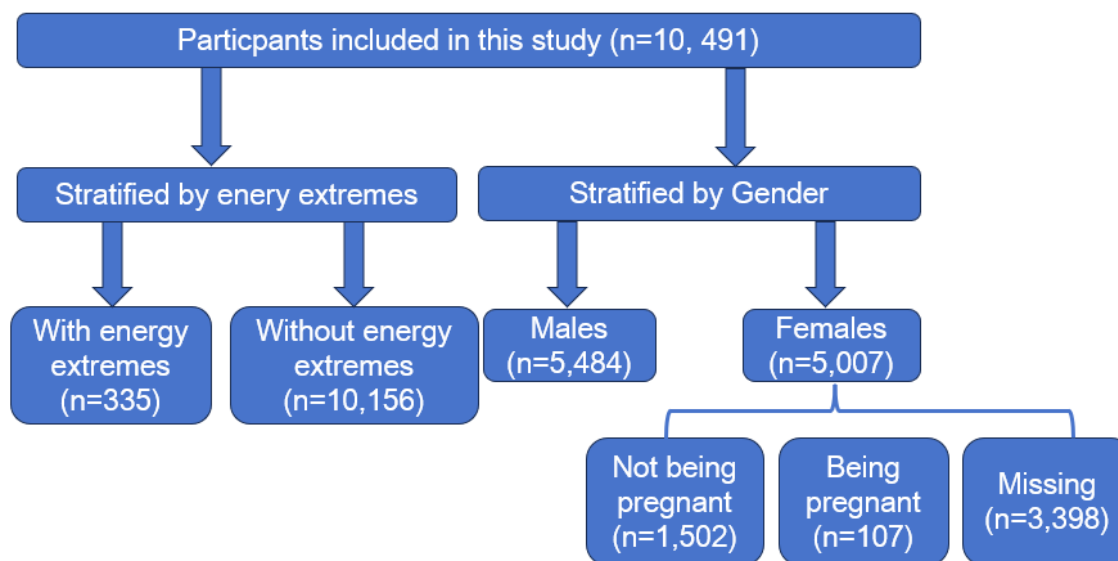


STable 1. Association between CDAI and sleep quality (related to Figure 2)

Outcomes	Model 1	Model 2	Model 3
<i>Sleep duration, β (95%CI) P-value</i>			
CDAI (continuous)	0.01 (0.01, 0.02) 0.0002	0.01 (0.00, 0.02) 0.0020	0.02 (0.01, 0.02) 0.0011
CDAI (categorical)			
Low	Reference	Reference	Reference
Middle	0.15 (0.08, 0.21) <0.0001	0.12 (0.06, 0.18) 0.0002	0.12 (0.05, 0.19) 0.0005
High	0.16 (0.10, 0.23) <0.0001	0.14 (0.07, 0.20) <0.0001	0.16 (0.08, 0.24) 0.0001
P for trend	<0.0001	<0.0001	<0.0001
<i>Sleep trouble, OR (95%CI) P-value</i>			
CDAI (continuous)	0.97 (0.96, 0.98) <0.0001	0.99 (0.98, 1.00) 0.1712	1.00 (0.98, 1.02) 0.8668
CDAI (categorical)			
Low	Reference	Reference	Reference
Middle	0.86 (0.78, 0.96) 0.0070	0.92 (0.82, 1.03) 0.1422	1.00 (0.88, 1.13) 0.9867
High	0.78 (0.70, 0.87) <0.0001	0.92 (0.82, 1.03) 0.1483	1.03 (0.88, 1.20) 0.7168
P for trend	<0.0001	0.1416	0.7223
<i>Sleep disorder, OR (95%CI) P-value</i>			
CDAI (continuous)	0.99 (0.97, 1.01) 0.3736	0.99 (0.97, 1.01) 0.4105	1.00 (0.97, 1.03) 0.8238
CDAI (categorical)			
Low	Reference	Reference	Reference
Middle	0.98 (0.83, 1.16) 0.8282	0.99 (0.83, 1.18) 0.9190	1.04 (0.86, 1.27) 0.6753
High	0.92 (0.78, 1.10) 0.3561	0.93 (0.78, 1.12) 0.4333	1.01 (0.79, 1.28) 0.9655
P for trend	0.357	0.435	0.954

Abbreviations: OR, odds ratio; CI, confidence intervals; CDAI, composite dietary antioxidant index; PA, physical activity; CVD, cardiovascular disease; BMI, body mass index; PIR, ratio of family income to poverty.

Note: Model 1: adjusted for no covariates. Model 2: adjusted for variables of Age, Gender, Race, Education, Marital status, PIR. Model 3: adjusted for variables of Age, Gender, Race, Education, Marital status, PIR, BMI, Smoking, Drinking, PA, Diabetes, Hypertension, CVD, Cancer, Depression, Anxiety, Pregnancy, Caffeine, Medication Use, Energy, Moisture.



SFigure 1. Participants' characteristics based on variables of gender and energy extremes.

STable 2. Association between CDAI an sleep duration after excluding participants with energy extremes (related to Figure 5A)

Exposure	Model 1		Model 2		Model 3	
	β	(95%CI) P-value	β	(95%CI) P-value	β	(95%CI) P-value
CDAI	0.013	(0.006, 0.020) 0.00016	0.015	(0.008, 0.022) 0.00003	0.013	(0.006, 0.020) 0.00017
CDAI tertile						
Low	0		0		0	
Middle	0.149	(0.085, 0.213) <0.00001	0.156	(0.091, 0.220) <0.00001	0.148	(0.084, 0.212) <0.00001
High	0.162	(0.098, 0.226) <0.00001	0.180	(0.114, 0.246) <0.00001	0.161	(0.097, 0.224) <0.00001
P for trend	<0.00001		<0.00001		<0.00001	

Abbreviations: OR, odds ratio; CI, confidence intervals; CDAI, composite dietary antioxidant index; PA, physical activity; CVD, cardiovascular disease; BMI, body mass index; PIR, ratio of family income to poverty. **Note:** Model 1: adjusted for no covariates. Model 2: adjusted for variables of Age, Gender, Race, Education, Marital status, PIR. Model 3: adjusted for variables of Age, Gender, Race, Education, Marital status, PIR, BMI, Smoking, Drinking, PA, Diabetes, Hypertension, CVD, Cancer, Depression, Anxiety, Pregnancy, Caffeine, Medication Use, Energy, Moisture.

STable 3. Association between CDAI an sleep duration after excluding participants with pregnancy (related to Figure 5B)

Exposure	Model 1		Model 2		Model 3	
	β	(95%CI) P-value	β	(95%CI) P-value	β	(95%CI) P-value
CDAI	0.032	(0.008, 0.056) 0.00889	0.032	(0.008, 0.055) 0.00920	0.032	(0.008, 0.056) 0.00828
CDAI tertile						
Low	0		0		0	
Middle	0.260	(0.103, 0.418) 0.00124	0.260	(0.102, 0.418) 0.00129	0.259	(0.101, 0.417) 0.00135
High	0.196	(0.012, 0.379) 0.03735	0.195	(0.011, 0.379) 0.03812	0.198	(0.014, 0.382) 0.03499
P for trend	0.00915		0.0095		0.00856	

Abbreviations: OR, odds ratio; CI, confidence intervals; CDAI, composite dietary antioxidant index; PA, physical activity; CVD, cardiovascular disease; BMI, body mass index; PIR, ratio of family income to poverty. **Note:** Model 1: adjusted for no covariates. Model 2: adjusted for variables of Age, Gender, Race, Education, Marital status, PIR. Model 3: adjusted for variables of Age, Gender, Race, Education, Marital status, PIR, BMI, Smoking, Drinking, PA, Diabetes, Hypertension, CVD, Cancer, Depression, Anxiety, Pregnancy, Caffeine, Medication Use, Energy, Moisture.