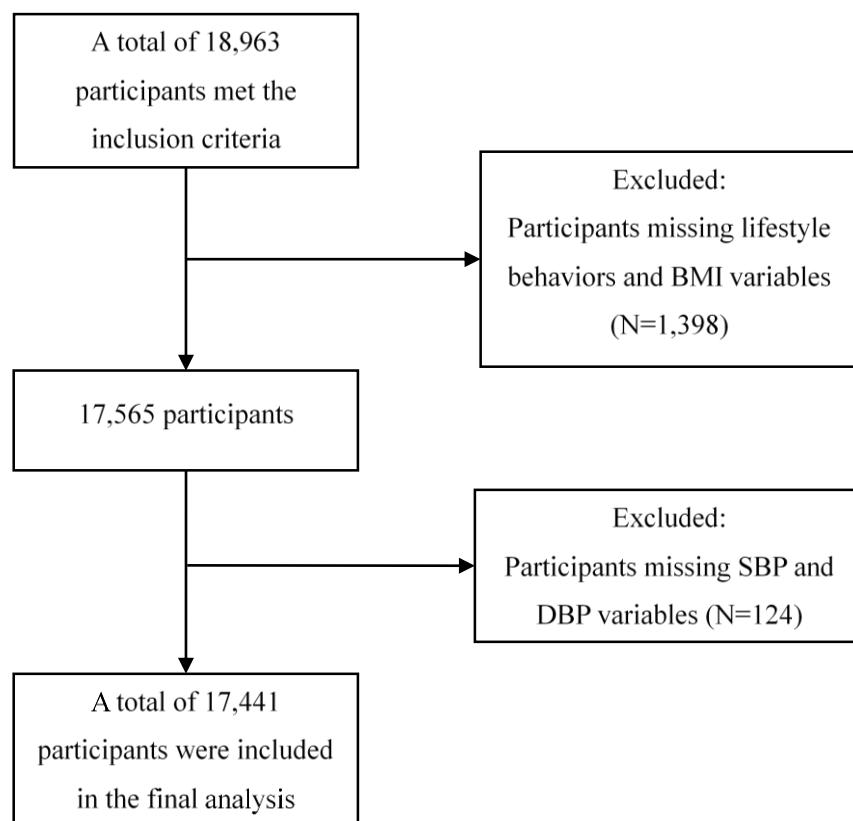# *Supplementary Material*

1   Supplementary Figures and Tables

1.1   Supplementary Figures

Supplementary Figure 1. Inclusion and exclusion of participants. BMI, Body Mass Index; SBP, Systolic Blood Pressure; DBP, Diastolic Blood Pressure.

1.2   Supplementary Tables

Supplementary Table 1. Multinomial logistic regression analysis for lifestyle behaviors, Body Mass Index, and blood pressure classifications.

Characteristics	Model1			Model2		
	Normal BP OR (95%CI)	High to normal BP OR (95%CI)	Grade 1 hypertension OR (95%CI)	Normal BP OR (95%CI)	High-normal BP OR (95%CI)	Grade 1 hypertension OR (95%CI)
Age (years)	0.97**(0.96 to 0.98)	0.98**(0.97 to 0.99)	0.98 **(0.98 to 0.99)	0.97**(0.96 to 0.98)	0.98**(0.97 to 0.99)	0.98**(0.98 to 0.99)
Gender						
Female	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Male	1.37**(1.20 to 1.55)	1.36**(1.19 to 1.55)	1.24**(1.10 to 1.39)	1.34**(1.18 to 1.52)	1.34**(1.18 to 1.53)	1.23*(1.09 to 1.38)
Education						
High school or above	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Middle school	0.84 (0.65 to 1.08)	0.95 (0.73 to 1.24)	0.78*(0.61 to 0.99)	0.85 (0.67 to 1.10)	0.96 (0.73 to 1.26)	0.78*(0.61 to 1.00)
Primary school or below	0.75*(0.59 to 0.94)	0.87 (0.68 to 1.12)	0.78*(0.63 to 0.98)	0.75*(0.60 to 0.95)	0.88 (0.68 to 1.13)	0.79*(0.63 to 0.99)
Annual household income (yuan)						
≥35,000	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
20,000 to 34,999	0.80 (0.62 to 1.02)	0.90(0.69 to 1.17)	0.96 (0.75 to 1.22)	0.80 (0.62 to 1.02)	0.90 (0.69 to 1.17)	0.96 (0.75 to 1.22)
10,000 to 19,999	0.56**(0.45 to 0.70)	0.68*(0.54 to 0.86)	0.83 (0.67 to 1.02)	0.57*(0.46 to 0.71)	0.68*(0.54 to 0.87)	0.83 (0.67 to 1.02)
<10,000	0.66**(0.54 to 0.80)	0.81*(0.66 to 1.00)	0.93 (0.77 to 1.12)	0.66**(0.54 to 0.80)	0.81 *(0.66 to 1.00)	0.93 (0.77 to 1.12)
Taking antihypertensive medicine						
Yes	—	—	—	Ref.	Ref.	Ref.
No	—	—	—	0.62**(0.55 to 0.70)	0.74**(0.66 to 0.84)	0.81**(0.73 to 0.90)
BMI						
Normal	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Underweight	1.23 (0.94 to 1.60)	1.16 (0.87 to 1.54)	0.77 (0.59 to 1.00)	1.24 (0.95 to 1.62)	1.17 (0.88 to 1.56)	0.77 (0.59 to 1.01)

Continued Supplementary Table 1. Multinomial logistic regression analysis for lifestyle behaviors, Body Mass Index, and blood pressure classifications.

Characteristics	Model1			Model2		
	Normal BP OR (95%CI)	High to normal BP OR (95%CI)	Grade 1 hypertension OR (95%CI)	Normal BP OR (95%CI)	High-normal BP OR (95%CI)	Grade 1 hypertension OR (95%CI)
Overweight	0.83**(0.75 to 0.92)	0.96 (0.85 to 1.07)	0.93 (0.84 to 1.03)	0.82**(0.74 to 0.91)	0.95 (0.85 to 1.06)	0.93 (0.84 to 1.02)
Obesity	0.62**(0.54 to 0.71)	0.78**(0.68 to 0.90)	0.83*(0.74 to 0.93)	0.61**(0.53 to 0.69)	0.77**(0.67 to 0.89)	0.82*(0.73 to 0.93)
Smoking status						
Never	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Former	0.99 (0.83 to 1.19)	1.01 (0.84 to 1.22)	0.94 (0.80 to 1.12)	1.00 (0.84 to 1.20)	1.02 (0.85 to 1.23)	0.95 (0.80 to 1.12)
Current	1.05 (0.88 to 1.27)	0.96 (0.79 to 1.17)	0.98 (0.82 to 1.17)	1.06 (0.88 to 1.28)	0.97 (0.80 to 1.18)	0.99 (0.83 to 1.17)
Drinking status						
Never	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Former	1.44*(1.14 to 1.81)	1.30*(1.02 to 1.67)	1.26*(1.01 to 1.58)	1.45*(1.15 to 1.82)	1.31*(1.02 to 1.67)	1.26*(1.01 to 1.59)
Current	1.02 (0.79 to 1.34)	1.16 (0.88 to 1.53)	1.16 (0.90 to 1.49)	1.05 (0.81 to 1.37)	1.18 (0.90 to 1.56)	1.17 (0.91 to 1.50)
Dietary patterns						
Low-risk	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
High-risk	0.72*(0.56 to 0.93)	0.69*(0.53 to 0.89)	0.74*(0.58 to 0.94)	0.74*(0.57 to 0.95)	0.70*(0.54 to 0.90)	0.75*(0.59 to 0.95)
PA levels						
High	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Moderate	1.07 (0.96 to 1.18)	0.97 (0.86 to 1.08)	0.95 (0.87 to 1.05)	1.06 (0.95 to 1.17)	0.96 (0.86 to 1.07)	0.95 (0.86 to 1.05)
Low	0.94 (0.83 to 1.08)	0.93 (0.81 to 1.07)	0.92 (0.81 to 1.03)	0.92 (0.81 to 1.05)	0.92 (0.80 to 1.06)	0.91 (0.80 to 1.02)

Take the grade 2 hypertension as the reference group. *P value＜0.05, **P value＜0.001; BP, blood pressure; BMI, Body Mass Index; PA, physical activity; OR, odds ratio; CI, confidence interval; Model 1, adjusted for age, gender, education, and annual household income; Model 2, adjusted for age, gender, education, annual household income, and taking antihypertensive medicine.

Supplementary Table 2. Effect of interactions between lifestyle behaviors and Body Mass Index on blood pressure classifications.

Variables	Normal BP P for interaction	High-normal BP P for interaction	Grade 1 hypertension P for interaction
Model 1			
BMI*Smoking status	0.197	0.984	0.907
BMI*Drinking status	<0.000	<0.000	<0.000
BMI*PA levels	0.751	0.615	0.142
BMI*Dietary patterns	0.379	0.052	0.058
BMI*Sleeping status	0.335	0.785	0.209
Model 2			
BMI*Smoking status	0.173	0.954	0.887
BMI*Drinking status	<0.000	<0.000	<0.000
BMI*PA levels	0.968	0.471	0.101
BMI*Dietary patterns	0.449	0.062	0.065
BMI*Sleeping status	0.269	0.715	0.239

BP, blood pressure; BMI, Body Mass Index; PA, physical activity; Model 1, adjusted for age, gender, education, and annual household income; Model 2, adjusted for age, gender, education, annual household income, and taking antihypertensive medicine.

Supplementary Table 3. Association of drinking status with the blood pressure classifications stratified by Body Mass Index.

Characteristics	Blood pressure classifications		
	Normal BP OR (95%CI)	High-normal BP OR (95%CI)	Grade 1 hypertension OR (95%CI)
Age (years)	0.97**(0.96 to 0.98)	0.98**(0.97 to 0.98)	0.98**(0.98 to 0.99)
Gender			
Female	Ref.	Ref.	Ref.
Male	1.36**(1.22 to 1.51)	1.33**(1.19 to 1.49)	1.20**(1.09 to 1.33)
Education			
High school or above	Ref.	Ref.	Ref.
Middle school	0.85 (0.66 to 1.10)	0.96 (0.73 to 1.25)	0.78*(0.61 to 1.00)
Primary school or below	0.75*(0.59 to 0.94)	0.87 (0.67 to 1.11)	0.78*(0.63 to 0.98)
Annual household income (yuan)			
≥35,000	Ref.	Ref.	Ref.
20,000 to 34,999	0.79 (0.62 to 1.02)	0.90 (0.69 to 1.17)	0.96 (0.75 to 1.22)
10,000 to 19,999	0.56**(0.45 to 0.70)	0.68*(0.54 to 0.86)	0.83 (0.67 to 1.02)
<10,000	0.65**(0.54 to 0.79)	0.80*(0.65 to 0.98)	0.92 (0.76 to 1.11)
Taking antihypertensive medicine			
Yes	Ref.	Ref.	Ref.
No	0.62**(0.55 to 0.70)	0.74**(0.66 to 0.83)	0.82**(0.74 to 0.90)
BMI*Drinking status			
Normal*Never	Ref.	Ref.	Ref.
Normal*Former	1.38 (0.95 to 2.00)	1.13 (0.75 to 1.70)	1.29 (0.90 to 1.86)
Normal*Current	1.08 (0.71 to 1.65)	1.10 (0.70 to 1.73)	1.10 (0.73 to 1.66)
Underweight*Never	1.26 (0.96 to 1.65)	1.22 (0.91 to 1.64)	0.80 (0.60 to 1.05)
Underweight*Former	1.39 (0.37 to 5.30)	0.26 (0.03 to 2.47)	0.56 (0.13 to 2.53)
Underweight*Current	0.70 (0.15 to 3.14)	0.50 (0.08 to 3.03)	0.28 (0.05 to 1.70)
Overweight*Never	0.82**(0.74 to 0.92)	0.93 (0.83 to 1.05)	0.93 (0.84 to 1.03)
Overweight*Former	1.20 (0.86 to 1.66)	1.42*(1.01 to 1.99)	1.18 (0.86 to 1.62)
Overweight*Current	0.84 (0.57 to 1.25)	1.16 (0.78 to 1.74)	0.96 (0.66 to 1.39)
Obesity*Never	0.59**(0.52 to 0.68)	0.76**(0.66 to 0.88)	0.81*(0.71 to 0.91)
Obesity*Former	1.01 (0.63 to 1.63)	1.01 (0.61 to 1.69)	0.94 (0.59 to 1.50)
Obesity*Current	0.74 (0.41 to 1.34)	1.05 (0.57 to 1.91)	1.50 (0.89 to 2.54)

*P value＜0.05, **P value＜0.001; BP, blood pressure; BMI, Body Mass Index; OR, odds ratio; CI, confidence interval. The model adjusted for age, gender, education, annual household income, and taking antihypertensive medicine.