Supplementary Table 1. Sociodemographic Characteristics of Participants

Variables	*n* (%)
Gender	
Female	439 (83.0)
Male	90 (17.0)
Age group, y	
≤20	192 (36.3)
21–23	278 (52.6)
≥24	59 (11.2)
Academic year	
1st year	169 (31.9)
2nd year	96 (18.1)
3rd year	206 (38.9)
4th year	58 (11.0)
Body mass index, BMI	
Underweight	62 (11.7)
Normal weight	353 (66.7)
Overweight	89 (16.8)
Obese	25 (4.7)
Perceived academic performance	
Poor	16 (3.0)
Moderate	382 (72.2)
Good	131 (24.8)
Perceived general health status	
Poor	15 (2.8)
Moderate	221 (41.8)
Good	293 (55.4)
Healthy eating habits	
Poor	99 (18.7)
Moderate	327 (61.8)
Good	103 (19.5)
Family income status	
Poor	10 (1.9)
Moderate	402 (76.0)
Good	117 (22.1)
Alcohol consumption	
Never	403 (76.2)
Occasionally	112 (21.2)
Frequently	14 (2.6)
Smoking status	
Never	370 (69.9)
Occasionally	84 (15.9)
Frequently	75 (14.2)

Supplementary Table 2. PSS and GSRS Score Distributions by Sociodemographic Characteristics

Variables	PSS	Diarrhea	Indigestion	Constipation	Abdominal pain	Reflux	GSRS
				Mean ± SD			
Gender							
Female	20.50 ± 5.52	5.66 ± 4.04	11.10 ± 5.14	6.52 ± 4.41	9.17 ± 4.17	4.66 ± 2.99	37.14 ± 15.69
Male	17.55 ± 5.34	4.50 ± 2.59	8.75 ± 5.13	4.17 ± 2.42	6.74 ± 4.65	3.61 ± 2.26	27.78 ± 12.89
P†	< .001	< .001	< .009	< .001	< .001	< .002	< .001
Age group, y							
≤201	19.67 ± 4.91	4.94 ± 3.16	10.52 ± 4.39	5.57 ± 3.71	8.90 ± 4.17	4.11 ± 2.48	34.06 ± 12.84
21–232	20.63 ± 5.66	5.91 ± 4.32	11.23 ± 5.76	6.59 ± 4.59	9.00 ± 4.45	4.93 ± 3.25	37.68 ± 17.34
≥243	18.10 ± 6.82	5.08 ± 3.36	8.81 ± 4.45	5.71 ± 3.85	7.15 ± 4.10	3.55 ± 1.96	30.32 ± 13.80
P‡ / Post hoc, Tukey	.004 / 2-3 = .004	.020 / 1-2 = .021	.004 / 2-3 = .003	.026 / 1-2 = .027	.010 / 1-3 = .018	< .001 / 1-2 = .007 / 2-3 = .003	.001 / 1-2 = .034 / 2-3 = .003
Academic year							
1st year1	19.79 ± 5.24	5.09 ± 3.19	11.08 ± 4.80	5.59 ± 3.81	9.20 ± 4.18	4.25 ± 2.64	35.23 ± 13.33
2nd year2	19.46 ± 5.17	4.66 ± 2.94	10.02 ± 4.82	6.16 ± 4.00	7.95 ± 4.34	3.87 ± 2.28	32.68 ± 14.45
3rd year3	20.81 ± 5.61	6.30 ± 4.72	11.09 ± 5.80	6.74 ± 4.68	9.04 ± 4.46	5.00 ± 3.39	38.19 ± 17.97
4th year4	18.60 ± 6.80	4.94 ± 2.98	9.36 ± 4.45	5.41 ± 3.85	7.79 ± 4.15	4.29 ± 2.39	31.81 ± 13.39
P‡ / Post hoc, Tukey	.028 / 3-4 = .039	.001 / 1-3 = .013 / 2-3 = .003	.056	.032 / 1-3 = .042	.052	.006 / 2-3 = .008	.006 / 2-3 = .022 / 3-4 = .029
BMI							
Underweight1	19.00 ± 5.74	4.43 ± 2.02	10.64 ± 4.74	5.95 ± 4.33	8.29 ± 4.68	3.91 ± 2.61	33.24 ± 12.58
Normal weight2	20.29 ± 5.27	5.51 ± 3.98	10.71 ± 5.16	5.92 ± 3.89	8.77 ± 4.35	4.49 ± 2.90	35.41 ± 15.82
Overweight3	19.59 ± 6.61	6.22 ± 4.43	11.26 ± 5.88	7.13 ± 5.27	8.94 ± 4.18	4.60 ± 3.07	38.17 ± 16.95
Obese4	19.80 ± 5.70	4.72 ± 2.59	8.68 ± 4.04	5.88 ± 4.24	9.12 ± 4.11	5.36 ± 3.02	33.76 ± 14.61
P‡ / Post hoc, Tukey	.328	.031 / 1-3 = .026	.185	.108	.788	.190	.239
***P*erceived academic performance**							
*P*oor1	20.25 ± 6.96	6.62 ± 5.38	8.62 ± 4.39	5.37 ± 3.93	8.37 ± 6.79	4.00 ± 2.68	33.00 ± 21.30
Moderat	19.93 ± 5.70	5.37 ± 3.76	10.82 ± 5.24	6.07 ± 4.15	8.78 ± 4.38	4.47 ± 2.86	35.52 ± 15.22
Good	20.16 ± 5.12	5.61 ± 3.91	10.61 ± 5.18	6.35 ± 4.52	8.75 ± 3.89	4.57 ± 3.07	35.92 ± 16.17
P‡	.900	.390	.240	.470	.930	.750	.770
***P*erceived general health status**							
*P*oor1	25.86 ± 5.78	8.93 ± 6.37	13.46 ± 5.16	7.86 ± 3.96	11.33 ± 6.12	5.73 ± 3.39	47.33 ± 19.53
Moderate2	21.33 ± 5.33	6.21 ± 4.01	12.03 ± 5.66	7.07 ± 4.76	9.87 ± 4.21	4.98 ± 3.10	40.19 ± 15.82
Good3	18.69 ± 5.37	4.73 ± 3.35	9.56 ± 4.54	5.32 ± 3.62	7.78 ± 4.09	4.04 ± 2.65	31.44 ± 13.96
P‡ / Post hoc, Tukey	< .001 / 1-2 = .005 / 1-3 < .001	< .001 / 1-2 = .019 / 1-3 < .001 / 2-3 < .001	< .001 / 1-3 = .010 / 2-3 < .001	< .001 / 2-3 < .001	< .001 / 1-3 = .004 / 2-3 < .001	< .001 / 2-3 = .001	< .001 / 1-3 < .001
Healthy eating habits							
*P*oor1	23.62 ± 5.91	6.35 ± 4.82	12.77 ± 5.77	7.33 ± 4.80	10.50 ± 4.86	5.44 ± 3.40	42.41 ± 16.67
Moderate2	19.17 ± 5.01	5.21 ± 3.35	10.36 ± 5.00	5.88 ± 4.05	8.59 ± 4.23	4.26 ± 2.73	34.31 ± 15.16
Good3	19.14 ± 5.70	5.44 ± 4.22	9.81 ± 4.80	5.74 ± 4.04	7.60 ± 3.67	4.25 ± 2.78	32.86 ± 14.37
P‡ / Post hoc, Tukey	< .001 / 1-2 < .001 / 1-3 < .001	.035 / 1-2 = .026	< .001 / 1-2 < .001 / 1-3 < .001	.007 / 1-2 = .008 / 1-3 = .021	< .001 / 1-2 < .001 / 1-3 < .001	.001 / 1-2 = .001 / 1-3 = .010	< .001 / 1-2 < .001 / 1-3 < .001
Family income status							
*P*oor1	25.20 ± 5.47	4.40 ± 1.57	10.20 ± 5.55	5.80 ± 2.04	8.80 ± 5.22	6.40 ± 3.30	35.60 ± 16.76
Moderate2	19.95 ± 5.58	5.63 ± 4.03	10.93 ± 5.36	6.39 ± 4.44	8.93 ± 4.33	4.55 ± 2.95	36.45 ± 16.02
Good3	19.72 ± 5.48	4.99 ± 3.30	9.96 ± 4.59	5.23 ± 3.47	8.15 ± 4.30	4.08 ± 2.64	32.43 ± 13.85
P‡ / Post hoc, Tukey	.011 / 1-2 = .009 / 1-3 = .008	.190	.199	.033 / 2-3 = .026	.230	.034 / 1-3 = .041	.050 / 2-3 = .038
Alcohol consumption							
Never1	19.66 ± 5.53	5.50 ± 3.78	10.61 ± 5.01	6.30 ± 4.40	8.84 ± 4.33	4.57 ± 2.86	35.84 ± 15.18
Occasionally2	21.29 ± 5.67	5.39 ± 4.31	11.08 ± 5.79	5.63 ± 3.77	8.54 ± 4.53	4.12 ± 3.12	34.78 ± 17.72
Frequently3	19.42 ± 5.65	5.00 ± 1.75	10.42 ± 5.97	5.00 ± 1.83	8.00 ± 3.18	4.85 ± 2.44	33.28 ± 10.79
P‡ / Post hoc, Tukey	.022 / 1-2 = .017	.864	.678	.202	.648	.318	.705
Smoking status							
Never1	20.12 ± 5.60	5.5 ± 3.65	10.62 ± 5.08	6.05 ± 4.01	8.78 ± 4.33	4.39 ± 2.82	35.41 ± 15.38
Occasionally2	18.22 ± 5.05	4.90 ± 4.37	11.22 ± 5.51	6.21 ± 4.91	8.91 ± 4.49	4.77 ± 3.04	36.04 ± 16.53
Frequently3	21.38 ± 5.74	5.66 ± 4.19	10.52 ± 5.48	6.40 ± 4.52	8.46 ± 4.27	4.58 ± 3.17	35.64 ± 16.10
P‡ / Post hoc, Tukey	.001 / 1-2 = .013 / 2-3 = .001	.334	.589	.793	.794	.535	.945

† Independent samples t-test; ‡ One-way ANOVA; Post hoc Tukey's test; SD, standard deviation; PSS, Perceived Stress Scale; GSRS, Gastrointestinal Symptom Rating Scale

Supplementary Table 3. Multiple Linear Regression Analysis of Factors Associated with GSRS Total Score

Variables	B	SE	β	*t*	*P* value
Constant	33.951	6.659		5.098	< .001
PSS	0.394	0.125	0.141	3.151	.002
Gender (female = 0, male = 1)	-8.197	1.802	-0.197	-4.549	< .001
General health status (poor vs. good)	15.454	3.996	0.164	3.868	< .001
General health status (moderate vs. good)	6.910	1.370	0.218	5.045	< .001
Family income (poor vs. good)	-1.601	4.921	-0.014	-0.325	.745
Family income (moderate vs. good)	0.848	1.589	0.023	0.534	.594
Smoking (occasional vs. non-smoker)	3.626	1.803	0.085	2.012	.045
Smoking (frequent vs. non-smoker)	2.144	2.056	0.048	1.043	.297
Alcohol use (occasional vs. non-user)	-1.924	1.652	-0.050	-1.165	.245
Alcohol use (frequent vs. non-user)	-5.740	4.143	-0.059	-1.385	.167
Age (years)	-0.393	0.221	-0.080	-1.779	.076
Academic year (1st vs. 4th year)	-2.113	2.460	-0.063	-0.859	.391
Academic year (2nd vs. 4th year)	-3.895	2.529	-0.096	-1.540	.124
Academic year (3rd vs. 4th year)	1.703	2.235	0.053	0.762	.446
Model summary / R^2 = .188, F = 5.506, P < .001					

B, unstandardized regression coefficient; SE, standard error; β, standardized regression coefficient; PSS, Perceived Stress Scale. Reference categories in the regression analysis were defined as female gender, fourth academic year, good general health status, good family income, non-smoker, and non-alcohol user.