

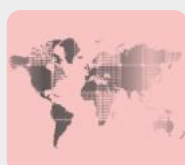
# The Impact of Health Educational Intervention on Chinese College Students

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## BACKGROUND

- Non-communicable diseases (NCDs) account for more than one-half of the global burden of disease. [1]
- Unhealthy life styles, like smoking, sedentary and unhealthy diet, increase the risk of NCDs.[2] Healthy behaviors have been shown to be an effective ways to reduce morbidity and mortality.[3]
- However, college students, during a critical transition period, tend to have poor healthy lifestyles. [4]



## OBJECTIVES

This study aimed to assess the impact of health educational intervention on healthy behaviors, well-being, and general self-efficacy among Chinese college students.

## DESIGN

This study was conducted in Wuhan university, China from March to October, 2016. Participants were assigned to a control (CG) or intervention group. The intervention group (IG) attended a 6-week lesson on knowledge, attitude, and practice of healthy behaviors. Participants reported their lifestyles using a self-administered questionnaire. Their subjective well-being, self-efficacy, and health behaviors were assessed by standardized questionnaires.

## RESULTS

A total of 532 college students aged 19.6±0.9 years ( IG n=263, CG n=269 control) completed this survey.

Table 1. Basic characteristics of participants

	CG* (n=269)	IG* (n=263)	P value
<b>Age (year)</b>	19.6(0.9)	19.4(0.9)	0.042
<b>Male</b>	162(52.3)	107(43.9)	0.004
<b>Height (cm)</b>	169.5(8.2)	168.3(8.1)	0.089
<b>Weight (kg)</b>	60.1(10.1)	58.0(10.2)	0.016
<b>BMI</b>	20.8(2.5)	20.4(2.5)	0.031
<b>Hometown</b>			0.314
Urban	176(66.4)	163(62.2)	
Rural	89(33.6)	99(37.8)	
<b>Maternal education</b>			0.871
Low	32(11.9)	34(13.0)	
Middle	146(54.5)	148(56.5)	
High	90(33.6)	80(30.5)	

\* CG= Control Group; IG= Intervention Group

Although no significant differences were observed at baseline, participants in the IG reported significantly increased prevalence for high physical activity and regular breakfast, as well as lower screen time, sugar beverages intake, and internet addiction after intervention (Table 2).

Table 2. Health behaviors between CG and IG

	Pre-Test		P	Post-Test		P
	CG	IG		CG	IG	
<b>Physical activity</b>						
High	79(29.4)	92(35.0)	0.166	81(30.1)	119(45.2)	<0.001
Low	190(70.6)	171(65.0)		188(69.9)	144(54.8)	
<b>Screen time</b>						
High	191(71.0)	166(63.1)	0.053	193(71.7)	152(57.8)	<0.001
Low	78(29.0)	97(36.9)		76(28.3)	111(42.2)	
<b>Regular breakfast</b>			0.236			<0.001
Yes	101(37.5)	112(42.6)		99(36.8)	136(51.7)	
No	168(62.5)	151(57.4)		170(63.2)	127(48.3)	
<b>Sugary beverages</b>			0.809			0.038
Frequent	56(20.8)	57(21.1)		55(20.4)	36(13.7)	
Infrequent	213(79.2)	206(78.3)		214(79.6)	227(86.3)	
<b>Internet addiction</b>			0.198			0.008
Yes	59(21.9)	46(17.5)		48(17.8)	26(9.9)	
No	220(78.1)	217(82.5)		221(82.2)	237(90.1)	

Note: Physical activity low(< 3 days/week); Screen time low (< 2 h/d); Regular breakfast no (<7 days/week); Sugary beverages infrequent (<1 time/week); CG= Control Group; IG= Intervention Group.

Furthermore, intervention students improved in general self-efficacy (p=0.029) and health behavior scores (p<0.001), while the changes in subjective well-being were not significantly different between two groups (Table 3).

Table 3. Differences in three scores between CG and IG

	Pre-Test <sup>a</sup>	Post-Test <sup>a</sup>	Difference <sup>b</sup>	P value*
<b>Subjective well-being</b>				
Control	15.25(5.15)	15.80(4.67)	0.41(0.22)	0.343
Intervention	16.03(4.51)	16.69(4.59)	0.70(0.22)	
<b>General Self-efficacy</b>				0.029
Control	25.72(5.48)	25.95(5.40)	0.06(0.26)	
Intervention	25.97(4.74)	26.61(4.96)	0.88(0.26)	
<b>Health behaviors</b>				
Control	69.23(9.95)	69.25(9.98)	-0.46(0.48)	<0.001
Intervention	72.24(8.43)	73.56(9.20)	1.83(0.48)	

a: mean(SD), b: mean(SE).

\*:Adjusted for age, sex, BMI, hometown, paternal and maternal education, and baseline scores.

## CONCLUSIONS

Health education may promote the healthy behaviors among Chinese college students. Our results provide more evidence to develop interventions to improve healthy lifestyle and prevent risky behaviors in this population.

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