

Prevalence and Risk Factors of Irritable Bowel Syndrome in Korean College Students

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Introduction

Irritable bowel syndrome (IBS) is a common, costly and potentially functional gastrointestinal disorder characterized by abdominal pain or discomfort with altered bowel habits, but without any organic damages to the intestine such as tumor or inflammation. IBS is a common functional gastrointestinal disorder in the West. But information on the prevalence of IBS in Asia is still lacking, especially in Korea. Despite its uncertain etiology, risk factors, such as psychological stress and sleep quality, are well correlated with the prevalence of the disease. The purpose of this study was to determine the prevalence of IBS and to investigate the related factors in Korean college students.

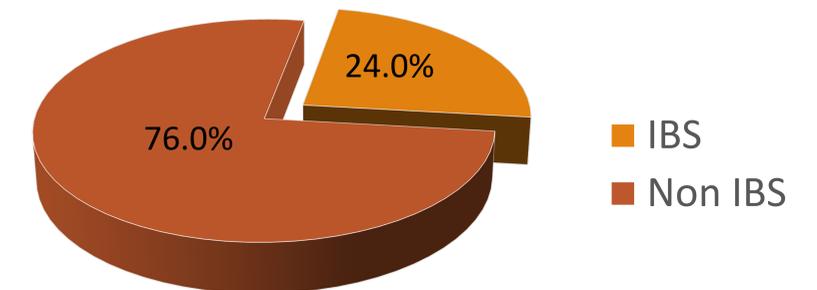
Methods

A sample of 420 college students was recruited among five universities. Data were collected from June to July 2017. Demographic and data with IBS symptoms(Rome III criteria), psychological variables(Depression Anxiety Stress Scales), and sleep quality(Pittsburgh Sleep Quality Index), diet habits, smoking, alcohol consumption, physical activity(International Physical Activity Questionnaire)were collected. Descriptive statistics and logistic regression analysis were used to analyze data.

Results

Among the 420 students that participated in this study, 101 students (24.0%) suffered from the symptoms of IBS according to the Rome III criteria. The prevalence of the IBS subtypes were IBS-M: 75.2%, IBS-D: 17.8%B, IBS-C: 5.0%, and IBS-U: 2.0%. IBS were associated with greater anxiety, depression, stress, and a lower sleep quality compared with those without IBS. Logistic regression analysis revealed that co-morbidity in gastrointestinal disorders (OR=2.24), family history of IBS (OR=2.98, $p=.008$), lower sleep quality (OR=9.55, $p=.002$), mild anxiety (OR=2.75, $p=.017$), and moderate anxiety (OR=2.02, $p=.042$) were independent predictors for the prevalence of IBS.

Prevalence



Conclusions

IBS are as common in Korean college students as in western populations. Independent risk factors associated with IBS included lower sleep quality and anxiety. Therefore, when diagnosing IBS in the future, mental health aspects should be considered in addition to physical health.

Variable	Categories	Univariate		Multivariate	
		OR(95%CI)	<i>p</i>	OR(95%CI)	<i>p</i>
Gender (Male)	Female	1.77(1.10-2.84)	.018	1.13(0.66-1.91)	.648
Family history of IBS(No)	Yes	3.56(1.71-7.42)	.001	2.98(1.32-6.70)	.008
History of Stomach and intestines disease (No)	Yes	3.16(1.97-5.06)	<.001	2.24(1.36-3.77)	.002
Sleep quality (good)	poor	2.71(1.67-4.41)	<.001	2.01(1.16-3.48)	.012
Stress (Normal)	Mild	2.17(1.07-4.41)	.030	1.21(0.53-2.75)	.637
	≥Moderate	2.73(1.50-4.96)	.001	1.14(0.53-2.45)	.722
Anxiety (Normal)	Mild	2.77(1.28-6.00)	.009	2.75(1.19-6.33)	.017
	≥Moderate	3.44(2.06-5.74)	<.001	2.02(1.02-4.00)	.042