THE EFFECTS OF DRINKING AND SMOKING AMONG UNDERGRADUATES ON ACADEMIC PERFORMANCE AND TRANSITION TO EMPLOYMENT

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Abstract

Alcohol consumption and smoking have various effects on college students' daily life as well as school life. Undergraduates' academic performance is also supposed to be affected by drinking and smoking. Studies, however, on the impacts of drinking and smoking on undergraduates' academic performance and the transition to the labor market is sparse, in Korea. The purpose of this study is to understand the effects of drinking and smoking among college students on school performance and the transition to work after graduation. The 2016 Graduates Occupational Mobility Survey (2016GOMS) was used for this study, which is the largest short-term panel survey of a representative sample of Korean Graduates. A total of 18,199 graduates were used as a sample data: 4,507 graduates from 2- to 3-year colleges, 139 from colleges of Education, and 13,553 from 4-year colleges or higher education institutions. Multiple regression analysis was performed, using Stata 14. The findings revealed that generally, as the frequency of smoking increases, alcohol consumption increases as well, that drinking more than one time per week decreased students' academic performance more than drinking less than one time per week, and that as the frequency of smoking increased the overall academic performance decreased. However, the finding of the study suggested that the higher the frequency of drinking and smoking, the higher the possibility of employment and wage. These results are consistent with those of previous studies that drinking and smoking have been an obstacle to academic learning but can help with employment transition in Korea. This result implies that socializing with colleagues can be an important factor to maintain one's job. Limitations of the study and further studies are discussed.

Keywords: Drinking and academic performance, smoking and academic performance, transition from college to the labor market, college students.

1. Introduction

Alcohol has been with human life for as long as there was a record of brewing wine in the Mesopotamia region, 5000 BC. According to the past studies on alcohol, moderate levels of alcohol consumption contribute to better health and daily vitality. In addition, drinking alcohol increases social interaction and reduces cardiovascular-related disease than no alcohol at all (Lee & Jeon, 2015). Past studies, however, also revealed that drinking not only increases the risk of one's loss of health but also causes much social harm, such as alcoholism and traffic accidents (Oh & Lee, 2007). Despite the continuous public advertisements that smoking is dangerous to health across the countries, tobacco and cigarettes are greatly consumed in many countries in the world. Korea is not an exception. Because of the wide range of smoking, research on smoking and its effects have been widely conducted (Choi, 2016). As of the year 2017, the daily smoking rate for Koreans was 18.1%, but the annual smoking rate for men, in particular, was 32.7% (3.6% for women) (Ministry of Health and Welfare, 2017). The gender gap is large, and the smoking rate among middle-aged people is relatively higher than in other age groups in Korea. The gap in the smoking rates between men in their 40s (40.4%) and women in their 40s (4.0%) is sharp. Harmful effects on the health of the public have been well known, charging the burden of more than 1 trillion won (about 840,222,000 USD) per year on Korean health insurance (Lee & Jeon, 2015). Studies conducted in other countries have revealed that drinking and smoking have negative effects on school performance (Balsa, Giuliano, & French, 2011; Witkiewitz et al., 2012). Appropriate drinking for a social helped an individual get higher wages than non-drinkers, but excessive drinking lowered one's wage compared to that of appropriate drinking (Hamilton & Hamilton, 1997). In the Netherlands, cigarette smokers got paid 10% lower than non-smokers, but alcohol consumers for social purposes got

paid more than non-alcohol consumers. However, women's wages were not directly affected by drinking or smoking (Ours, 2004). It was revealed that in the United States, smoking lowered wage levels during and after smoking. Wage reduction has been significantly affected by smoking, particularly for men and for individuals with less than 13 years of education (Du & Leigh, 2015). Even though there have been many studies on the effects of drinking smoking on various factors in many countries, studies on the effects of college students' drinking and smoking on their school academic performance and transition to the world of work are sparse in Korea. Thus, this study was to examine the effects of college students' drinking and smoking on their academic performances and the transition from school to work. The findings of this study can contribute to improving college students' perception of smoking and alcohol consumption and suggest new policies and students' codes of conduct at colleges in Korea.

2. Method

2.1. Sample

The 2016 Graduates Occupational Mobility Survey (2016GOMS) was used for this study, which is the largest short-term panel survey of a representative sample of Korean Graduates and uses graduates of 2- to 3-year colleges or higher education institutions as its population. The GOMS aims to provide extensive reliable labor supply and demand information on youths' labor market behavior and educational experience to policymakers and researchers so that they investigate characteristics of the transition that the youths make from school to the labor market. A total of 18,199 graduates were used as a sample data: 4,507 graduates from 2- to 3-year colleges, 139 from colleges of Education, and 13,553 from 4-year colleges or higher education institutions.

2.2. Measures

Academic performance. To measure participants' academic performance, one of the outcome variables of this study, their final GPA was used. Since the grading system of GPA across colleges and universities, participants' GPAs were recoded into a scale (1=100% of GPA).

Transition from college to work. To measure the quality of transition from college to the labor market, one item was used: *Are you a full-time tenured employee at the current workplace?*, and participants can respond, *Yes* or *No*.

Alcohol consumption. To measure the amount of alcohol consumption of college students, one item was used: How often do you drink alcohol? Participants can rate from level 1 to 6 (1=Not drink at all, 2=once or twice per year, 3=one or twice per month, 4=once or twice per week, 5= three or four times per week, and 6= almost every day). The number of participants who selected *6=almost every day* was less than 30, so the group was deselected.

Smoking. To measure participants' degree of smoking, two items were used. The first items asked, *Do you smoke?* and for the respondents who answered ''yes'' to the first question, the second question asked a respondent to type in the number of the cigarettes they smoke per day. The number of participants who selected *smoking 21 cigarettes or more per day* was less than 30, so the group was deselected.

Control variables. The amount of time spent on exercise per week, the average time of sleeping per day, disabilities, any limitations of physical activities, and disabilities for job performance were used as control variables.

2.3. Data analysis

General regression analysis and ordered logistic regression (Brant, 1990; McCullagh, 1980) were performed to analyze the effects of the predicting variables on the outcome variables, using Stata 14.

3. Findings

Alcohol consumption and academic performance. The result indicates that as drinking once or twice per week increases by one unit, college students' final GPA decreases by 0.006 units and as drinking three or four times per week increases by one unit, their final GPA decreases by 0.01 units.

Smoking and academic performance. Regardless of the number of cigarettes they smoke, smoking decreases college students' final GPA. For example, as smoking one to five cigarettes per day, college students' final GPA decreases by 0.021 units.

Table 1. Ordered Logistic Regression Analyses Predicting Academic Performance from Drinking and Smoking (n=16,671).

Predicting variable		All sample		2-3 year community college (n=3,994)		4 year college (n=12,677)	
		B	S.E	B	S.E	B	S.E
Drinking	yearly 1-2 times	-0.004	0.003	-0.001	0.006	-0.005	0.003
	monthly 1-2 times	-0.004	0.002	-0.011**	0.005	-0.001	0.002
	weekly 1-2 times	-0.006***	0.002	-0.016***	0.005	-0.003	0.002
	weekly 3-4 time	-0.010***	0.004	-0.019**	0.008	-0.009**	0.004
Smoking	1-5 pieces per day	-0.021***	0.004	-0.017**	0.008	-0.023***	0.004
	6-10 pieces per day	-0.016***	0.003	-0.013**	0.005	-0.017***	0.003
	11-15 pieces per day	-0.024***	0.004	-0.015*	0.008	-0.029***	0.005
	16-20 pieces per day	-0.024***	0.004	-0.011	0.008	-0.031***	0.005
Constant		0.851***	0.008	0.846***	0.016	0.836***	0.010
R^2		.11		.10		.11	

** means $p < .05$ and *** means $p < .001$.

Alcohol consumption and the transition from college to the labor market. The result indicates that as drinking regardless of the number times they drink increases by one unit, college graduates' employment increases except for the case of once or twice per year, which decreased their employment. For example, as drinking three or four times per week increases by one unit, college graduates' employment increases by 0.63 units.

Smoking and the transition from college to the labor market. The result indicates that as smoking regardless of the number of cigarettes they smoke increases by one unit, college graduates' employment increases. For example, as smoking 16-20 cigarettes per day increases by one unit, college graduates' employment increases by 0.236 units. The effect of drinking on male participants' employment is higher than female participants', but the effect of smoking is vice versa. All of these interpretations are true only if the effects of control variables are held constant.

Table 2. Ordered Logistic Regression Analyses Predicting Transition from College to the Labor Market from Drinking and Smoking (n=16,671).

Predicting variable		All sample		Male (n=9,116)		Female (n=7,555)	
		B	SE	B	SE	B	SE
Drinking	yearly 1-2 times	-0.070***	0.014	0.284***	0.016	0.287***	0.013
	monthly 1-2 times	0.280***	0.010	0.581***	0.016	0.395***	0.014
	weekly 1-2 times	0.498***	0.011	0.758***	0.026	0.417***	0.028
	weekly 3-4 time	0.630***	0.019	0.455***	0.050	0.230***	0.059
Smoking	1-5 pieces per day	0.199***	0.021	0.167***	0.026	0.286***	0.034
	6-10 pieces per day	0.076***	0.013	0.098***	0.014	-0.217***	0.039
	11-15 pieces per day	-0.109***	0.021	-0.079***	0.023	-0.919***	0.092
	16-20 pieces per day	0.236***	0.022	0.205***	0.023	0.047	0.113
Constant		0.851***	0.008	0.846***	0.016	0.836***	0.010
Pseudo R^2		.17		.20		.16	

** means $p < .05$ and *** means $p < .001$.

4. Conclusions and discussion

The results of the study that alcohol consumption and smoking as college students have had negative impacts on their academic performance, but have contributed to increasing possibilities of employment. Specifically, it is interesting that the effects of heavy drinking and smoking have also been contributed to the transition from college to the labor market. This result is different from those from the past studies in other countries that only appropriate drinking has a positive effect on employment and drinking had generally negative effects on employment and wage (Du & Leigh, 2015; Hamilton & Hamilton, 1997). This result may reflect the Korean culture that employees' promotions and

performance evaluations in companies tend to rely on social relationships and good rapports between supervisors and workers rather than the criteria are based on the fair evaluations of employees' products, outcomes, accomplishments, and abilities. This result can explain why there are many social meetings after work in the evenings in Korea and many employees cannot but participate in such socials even though they do not want to. This practice is one of the practices that companies and institutions should avoid to grow healthy companies (Park & Hill, 2016). The result also implies that Koreans have quite generous perspectives on drinking. This generous view on drinking has led to a soft transition to the labor market. It may encourage college students and employees to drink back. However, drinking generally deteriorates the ability to work and causes substantial social costs such as drunken drivers leading to accidents and deaths as well as the subsequent insurance costs and tax (Yang & Yang, 2012).

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