

Weekly school time is associated with socio demographic, life-style and sleep-wake variables among working college students

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The combined effects of long work hours (>40h/week) and reduced sleep length might affect their lifestyles and academic performance.

Introduction

Literature has indicated that unhealthy lifestyles (alcohol consumption, sedentary lifestyle) health symptoms (including sleep patterns) and work factors are associated with poor academic performance.

We hypothesize that time spent in college is also affected by these mentioned variables.

Objectives

To assess the factors associated with time spent in classes.

Methods

This is a cross-sectional study carried out in a public college, in São Paulo, Brazil. All working students aged 21-26 years attending a college institution in the evening (19:30-22:30h) were invited to participate in this study.

Eighty-two students agreed to participate. They answered a comprehensive questionnaire about socio-demographic, life-style, working conditions and health symptoms. All participants wore an actigraph for 7 consecutive days. During the same week, they also filled out a daily activity protocol to obtain information on time spent at college, work, commuting time and leisure time.

Statistical analyses

The statistical analysis consisted on linear regression analyses to assess the variables associated with time spent in classes. A stepwise forward selection was performed. In the analyses was considered $\alpha=5\%$.

Results

The results of the χ^2 of Pearson showed significant association between time spent in classes and the number of the failures in disciplines. Those who spent less time in classes (≤ 22.25 weekly hours from Monday to Friday) were those who reported higher number of failures in disciplines ($p=.042$).

The linear regression analysis showed an association between time spent in college and being a female (increased 141.09 minutes on time spent in school), reported drinking habits (decreased 188.31 minutes on time spent in school), higher weekly working time (for each minute of work time spent in school decreased 0.29 minutes), shorter sleep length during work days (for each minute of sleep during work days time spent in college decreased 1.45 minutes) and high levels of sleepiness on Saturday (increased time spent in school 185.24 minutes). The model was adjusted by sleep onset on workdays and age.

Figure 1. Association between time spent in classes and number of failures in college disciplines.

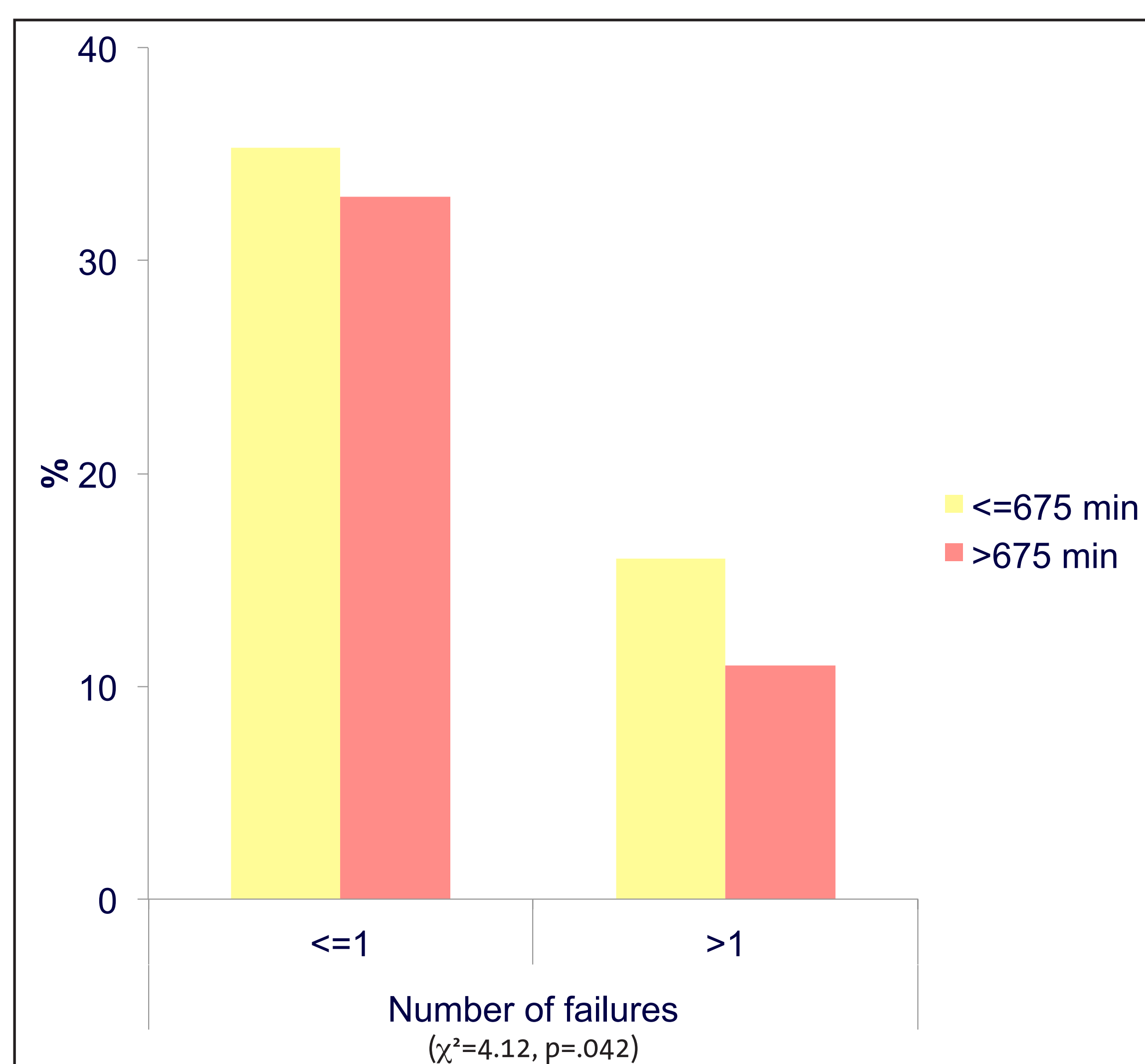


Table 1. Multivariate linear regression analyses between the dependent variable time spent in classes and independent variables.

Variável	Categorias	β_0	IC _{95%}	t	p
Weekly working time		-0.14	-0.23; -0.04	-2.81	.000
Sex	Male	-	-	-	
	Female	162.46	6.10; 318.81	2.09	.044
Sleep length – work days		-1,19	-2.29; -0.09	-2.18	.005
Excessive sleepiness on Saturday	No	-	-	-	
	Yes	172.22	6.28; 338.16	2.09	.009
Alcohol consumption	No	-	-	-	
	Yes	-188.32	-385.41; -3.45	-2.18	.033

Conclusions

The combined effects of long work hours (>40h/week) and reduced sleep length might affect their lifestyles and academic performance. Future studies should aim to look adverse health effects induced by reduced sleep duration, even among working students who spent longer time attending evening classes.

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