STRESS, COFFEE DRINK, TOBACCO AND ALCOHOL
CONSUMPTION IN A STUDENT SAMPLE OF SMOKERS
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INTRODUCTION
Emotional responses to stress play an important role in health behavior change. During times of low and high academic demands, health behaviors tend to be deteriorated in college undergraduate students (Weidner et al., 1996). A similar study found increasing anxiety and smoking behaviors, but a decrease in the consumption of alcohol during the examination period in medical students (Ogden & Mtandabari, 1997). In current smokers, mean score on Perceived Stress Scale is significantly higher than that of the students who don’t smoke (Naquin & Gilbert, 1996).

Smoking and caffeine use have shown metabolic interrelationships (Benowitz et al., 1989). Several positive correlations among the use of caffeine and/or nicotine with other addictive drugs have been observed: persons with histories of alcohol are more likely to smoke (Kozlowski et al., 1986).

Alcoholism and coffee drinking are positively related (Nil et al, 1984); amount of coffee drinking and cigarette smoking are positively related (Thomas, 1973).

Finally, among alcoholics, caffeine and nicotine are the most common antecedent psychoactive drugs (Johnston et al., 1987).

AIMS
This study focused on the influence of stress on tobacco, alcohol and coffee consumption in a student sample of smokers, during and after an exam session.

HYPOTHESES
- Subjects will show higher stress, anxiety, coffee consumption and nicotine use and less alcohol drinking during exam period than out of session.
- Use of coffee, alcohol and tobacco will be related to stress and psychological distress during the exams.

METHODS
SUBJECTS
63 smoking students (39 female and 24 males) were recruited. Thanks to the students (2nd candidature psychology 2003-2004) who recruited the subjects.

DESIGN
Smokers filled in questionnaires the day of the exam and two weeks later (out of exam session) at the same moment of the day.

MEASURES
Each subject completed before and after an exam session:
- an evaluation of coffee, smoke and alcohol use
- the Fagerström test (Heatherton & Fagerström, 1991) to measure of nicotinic dependence
- the Psychiatric Symptom Index (ISP) (Ilfield, 1976) to measure of psychological distress
- the State Trait Anxiety Inventory (STAI) (Spilberger, 1983) to measure of anxiety
- The Psychiatric Stress Measure (MSP) (Lemyre & Tessier 1988) to measure of stress

RESULTS
Students reported more stress (t=7.71; p=.0001), anxiety (t=5.05; p=.00004), psychological distress (t=3.53; p=.0007) and coffee drinking (t=2.16; p=.035) but less alcohol consumption (t=3.46; p=.001) during the day of the exam. No difference was found in tobacco consumption.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Pretest</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>24.44</td>
<td>23.05</td>
</tr>
<tr>
<td>Duration of tobacco use in year</td>
<td>8.33</td>
<td>5.56</td>
</tr>
<tr>
<td>Number of cigarettes/day</td>
<td>12.63</td>
<td>7.33</td>
</tr>
<tr>
<td>Number of cup of coffee/day</td>
<td>1.97</td>
<td>2.54</td>
</tr>
<tr>
<td>Number of alcohol unit/day</td>
<td>2.9</td>
<td>2.6</td>
</tr>
</tbody>
</table>

The symptoms of stress (MSP) were inversely correlated with coffee drinking behavior (R = -0.17; p=.019). No significant correlation was found with alcohol or tobacco consumption. The symptoms of psychological distress (ISP) were inversely correlated with coffee (R = -0.32; p=.014) and positively correlated with tobacco use (R = 0.78; p=.046) but not with alcohol use.

CONCLUSION
We found increased stress, anxiety, psychological distress and coffee drinking during the exams, but less alcohol consumption. The relatively acute stress experienced by the subjects in the present study may have reduced alcohol intake because the students were studying and alcohol would be detrimental to their ability to concentrate. Surprisingly, examination stress did not increase smoking behavior, but we found a positive relation between psychological distress and use of nicotine. Psychological distress and substance use and dependence have prospectively predicted the onset of smoking and the inability to stop smoking. There are several plausible biological and behavioral hypotheses to explain whether smoking causes psychological problems, psychological problems cause smoking, or some third variable causes both.

Colleges and universities offer an unique area for changing smoking behaviors. Educators must rise to the challenge of developing and implementing smoking prevention and cessation programs for this unique population.

BIBLIOGRAPHY


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