Comparing Attitudes, Knowledge, and Behaviors Regarding Tobacco and Alternative-Tobacco Products Between Private and Public University Students in the Northeast

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Background

There is a rising incidence in the use of electronic cigarettes and hookah on college campuses. This has shown to lead to other high-risk behaviors, including the use of traditional tobacco products (e.g. cigarettes). Several factors, including deficient knowledge regarding the health risks of alternative-tobacco products themselves, may contribute to this increase in prevalence. For example, a recent study measuring young adults’ perceptions of the health risks associated with alternative-tobacco products in relation to cigarettes found that 57.8% of respondents perceived e-cigarettes to be less risky than cigarettes while 24.5% perceived hookah to be less risky (Wachowski & Delnevo, 2016). Perceptions of the health risks associated with these alternative-tobacco products may be influenced by demographics, socioeconomic status, and previous use of tobacco products. This influence may be observable by measuring the differences in the attitudes, knowledge, and behaviors regarding tobacco and alternative-tobacco products amongst private and public university students.

Purpose

The purpose of this study is to measure the differences in knowledge, attitudes, and behaviors associated with tobacco and tobacco-related products among students at a private and a public university in the northeast.

Procedure

Recruitment of participants for this study followed approval by the Departmental Review Board of the University of Scranton, Department of Nursing. A twenty-three question survey, front and back of one page, was administered in a highly trafficked area on campus. The Tobacco Attitudes and Behaviors Survey (TABS) consisted of demographic information and items to assess attitudes towards tobacco and tobacco-related products as well as behaviors relating to their use on college campuses. It was developed by members of the interdisciplinary Tobacco Use Research Program (ITURP) at Binghamton University. A panel consisting of local leaders, experts on tobacco cessation, and faculty from different disciplines met and reviewed relevant questions for the survey. It was used for this study with permission from ITURP Binghamton.

Graduate and undergraduate students over the age of 18 were given a handout regarding the study and asked if they would participate. Following recruitment, the TABS questionnaire was administered by the co-investigators. Completing the survey lasted approximately 5-10 minutes.

Methods

• Design: The study employed a descriptive correlational design.
• Setting: Research was conducted at a medium-sized, private University located in the Northeast. Results were compared with data collected from a large public University in the same geographical region. The private University has a population of approximately 6,000 graduate and undergraduate students. The public University has a population of approximately 15,000 graduate and undergraduate students.
• Procedure: Surveys were distributed over a two day period in May, 2016 in a high-traffic student center at the private University. Results were then compared to the findings of a similar study conducted by the public University in May, 2015.
• Participants: N = 481 (46.2% private, 53.8% public)

Private:
N = 222 (37.8% M, 61.7% F)
Age ≤ 22: 95.5%

Public:
N = 259 (49.4% M, 49.8% F)
Age ≤ 22: 85.0%

Measurement

• Instruments:
  - TABS (23 questions)
    - The Tobacco Attitudes and Behaviors Survey (TABS) measures demographic information of participants as well as their knowledge, attitudes, and behaviors regarding tobacco use on college campuses. The instrument used was previously tested for validity and reliability. Sample questions from the TABS are listed below:

Sample Questions from TABS Survey

Have you smoked at least 100 cigarettes in your life?
Do you use e-cigarettes?
In the past month, how often do you think the typical student has used tobacco products?

Figure 1: Sample TABS Questions

Results

• Significant Results
  - Chi-square test for independence was used to explore the relationship with alternative-tobacco product use in private versus public university students.
  - Significant results were found for cigarettes, e-cigarettes and hookah, with a higher number of public university students using these products as compared to private university students.

  - Cigarettes X² (1, n = 481) = 4.19, p = .04
  - E-cigarettes X² (1, n = 481) = 8.44, p = .04
  - Hookah X² (1, n = 481) = 23.87, p = .00
  - Independent sample t-tests were conducted to evaluate the hypothesis that students who had reported they had smoked cigarettes or e-cigarettes would report a higher number when asked how often they thought the typical college student used tobacco products in the past month. Results were significant.
  - Students who reported that they had smoked cigarettes reported a significantly higher number of times they thought typical students used tobacco products.
  - t(453) = .406, p = .04
  - Students who reported that they use e-cigarettes reported a significantly higher number of times they thought typical students used tobacco products.
  - t(453) = .430, p = .00

• Implications
  - These preliminary findings suggest a knowledge deficit regarding tobacco-related products among college students. This could lead to an increased use of these products. The results of this study will be used to develop interventions to educate students on the effects of tobacco-related products.
  - The implications of this study coincide with those of previous studies, further stressing the importance of including information regarding alternative-tobacco products in prevention programs aimed at college students (Latimer et al., 2015).

• Limitations
  - Looking at demographics, the public universities has a much more diverse population than the private university. Minorities are not well represented at the private university.
  - Another limitation that can be assumed with any study utilizing surveys is the misinterpretation of questions on the survey. Because participants may not have understood what the questions were asking, their views were not accurately represented. The motivation of some participants to complete the survey may be questionable due to the fact that the survey was administered in a high traffic area. Some participants may have rushed through the survey, leaving questions blank and inaccurately answering others.

References

Caverly, W. D., & Delnevo, C. D. (2015). Young Adults’ Risk Perceptions of Various Tobacco Products Relative to Cigarettes and Hookah, with a Higher Number of Public University Students Using These Products as Compared to Private University Students. Social Science & Medicine, 73, 2080-2089. doi:10.1016/j.socscimed.2011.09.033