



# **Tobacco Use Amongst Belgium University Students Between 2005, 2009 & 2013: Does Gender Matter?**

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# Introduction

- According to WHO there are gender linked patterns of tobacco use.
- Student populations have been shown to be at high risk for smoking.
- Although much research has gone into smoking amongst university students, most studies have ignored the moderating effect of gender.
- This presentation will highlight whether gender and health determinants, tobacco misuse and gender performance could shed light on how to reinforce tobacco control policies in Belgium and in particular in academic settings.
- This presentation also theorizes gender as a poststructuralist and systemic dilemma in order to highlight whether gender matters in understanding tobacco use amongst male and female university students in Belgium.

# Method

- Data reported on in this investigation are part of an ongoing cross-sectional study initiated by the University of Antwerp and the participants were students from four different institutions of higher learning.
- The data analyzed questionnaires that were administered in 2005, 2009 and 2013.
- The methodology used was therefore purely quantitative in nature.
- The instruments used were the same questionnaire in 2005 and 2009 however, in 2013 the Fagerström Test for Nicotine Dependence (FTND) were added (the 2017 questionnaire is underway and again includes the FTND).

# Measures

- Most of the measures used to collect data on gender and smoking were extracted from the Belgium Health Interview Survey.
- Our study, called “Head in the Clouds”, used nominal and ordinal scales to obtain information about respondents’ gender, indicating whether the participant self-identified as male (reference category) or female; other demographics such as whether the students lived at home or in campus residence were collected.
- Nominal and ordinal scales were used to obtain information on questions about life time use of tobacco (cigarettes, cigars, or and smoking pipes), past year tobacco use, and the year in which they last smoked, were extracted from the students.
- Students were also asked how much they used tobacco products during the school year, during exam time and holiday time. Where (dormitories, apartments, cafés, restaurants, parties, student activities, clubs, homes and cars) they smoked was also assessed.
- Methodologically, the Fagerström Test for Nicotine Dependence (FTND) is usually the standard instrument for assessing the intensity of physical addiction to nicotine, which is why this formed an important part of the 2013 questionnaire for our study.

- A randomized stratified sample was selected.
- Using a confidence interval of 95% the number of students were determined for each sample with a response distribution of 50%.
- In order to compare tobacco use and gender over the three year period, Pearson's chi square tests were performed. Statistical significance was set at  $p < 0.05$  (two-tailed).
- Data were weighted according to gender and all analyses were performed using SPSS 24 (IBM SPSS Statistics for Macintosh, Version 24.0).
- In 2005, only students from the Antwerp Association of the University and Colleges were involved.
- In 2009 and 2013, representative samples were used to correct for the fact that not only Antwerp students but also Ghent and Leuven students were included in these studies.
- Since the response rate was not the same in all three Associations, it is clear that there could be confounding variables because the Association with the highest response could influence the results more compared to the Association with the lowest, therefore the importance of representativeness in 2009 and 2013.



# Results

2005		2009		2013		Total	
Men	Women	Men	Women	Men	Women	Men	Women
2579	2936	2107	2493	1423	2959	6109	8388

- The sum of total sample size including all three occasions was 14497.
- Across the three time periods (2005, 2009, 2013) males reported to have started smoking at the age of 16 whereas females reported to start smoking at age 15.
- This ties in with the WHO reports for the 2010-2015 period on gender differences in smoking, which point out that women appear to take up smoking at an earlier age than men.
- Since girls undergo puberty and all its emotional and physical challenges earlier than boys, ethnographic research in the Philippines suggest that women attach smoking to emotional episodes whereas their male counterparts respond differently.
- This could explain why girls start smoking earlier than boys and that based on the Pearson's chi square tests performed on all three time points (2005, 2009, 2013) there is a clear indication that smoking amongst females are increasing.

# Results

- The results of this study indicate that on average 57% of males and 48% of females across the three time periods (2005, 2009, 2013) have used tobacco products in the past year.
- Across the three time periods (2005, 2009, 2013), 64% of males live at home and 61% of females live at home during the week.
- Overall, in 2013 more women reported to have smoked during the academic year, during exams and during holidays, than men.



# Conclusion

- During the 2005, 2009 and 2013 period, even though more men reported to have ever smoked on average, the number of female smokers have increased.
- Females start smoking at a younger age and more men rather than women live at home with their parents.
- Overall, in 2013 more women reported to have smoked during the academic year, during exams and during holidays.
- This finding is different to what the literature indicates that men smoke more than women, daily.
- Perhaps this finding could also be equated to the fact that in this sample, more men than women live at home across the three time periods (2005, 2009, 2013).
- It is clear that despite the number of legislative and public health campaigns, such as no smoking in public places, smoking amongst Belgian students still remain high.
- Gender performativity within the home life of students could play a role as it relates to why male students who smoke while living at home with their parents are acceptable.

# Recommendations

- In order to develop effective prevention and treatment programs to decrease smoking use:
  - university councils could take heed to the social norms approach which could illuminate these findings and
  - implement a social norms approach campaign which has successfully shown a reduction in smoking in students in the United States of America.
  - An important aspect to consider is what consequences different living situations could have for academic policy with regards to male and female smoking use.



**Thank You, Merci beaucoup**

