The smoking chain: friendship networks, education, social background and adolescent smoking behavior in the Netherlands
Huisman, C.

Citation for published version (APA):
Huisman, C. (2013). The smoking chain: friendship networks, education, social background and adolescent smoking behavior in the Netherlands

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
Content

1 Introduction

1.1 The Rebellious Smoker? 13

1.2 On the Intersection of Three Research Fields: Youth Studies, Sociology of Education, and Health Stratification 15

1.3 Research Field One: Youth Studies on Friendship Networks and Adolescent Smoking 17
   1.3.1 The Network Approach in Youth Studies 17
   1.3.1.1 Adolescent Smoking and Friends’ Influence 17
   1.3.1.2 Adolescent Smoking and Friendship Selection 18

1.4 Research Field Two: The Sociology of Education on Differentiation and Smoking among Dutch Adolescents 20
   1.4.1 Differentiation within the Dutch Education System 20
   1.4.2 Variation in Smoking Habits among Students across Different School Types 23

1.5 Research Field Three: Health Stratification on the Role of the Smoking Behavior of Dutch Adolescents and Social Background Characteristics for Health Inequalities 24
   1.5.1 Adolescent Smoking and Social Background Characteristics 24

1.6 The Interaction of Friendship Networks, Education, Social Background Characteristics, and the Smoking Behavior of Dutch Adolescents 26
1.6.1 The Relationship between Social Background, Education, and the Smoking Behavior of Dutch Adolescents 26
1.6.2 The Relation between Smoking, Social Background Characteristics, and Secondary School Friendship Networks 28
1.6.3 The Relation between Smoking, Friendship Networks, and Education 29
1.6.4 The Contributions of This Study 30

1.7 The Central Question, Sub-Questions and Chapter Overview 30
1.7.1 The Sub-Questions 31
1.7.2 Chapter Layout 32

2 Data and Methods 35

2.1 Introduction 35

2.2 Sampling Procedure and Data Collection 36
  2.2.1 Dutch National School Survey on Substance Use 2007 36
  2.2.2 Longitudinal Network Data Dutch Adolescents (Lnda) 36

2.3 Community Detection 40

2.4 Actor-Based Models for Longitudinal Network Analysis 40

2.5 Siena modeling 42

2.6 Data Analytic Approach 44

3 Setting the Stage 45

3.1 Introduction 45

3.2 Dutch Secondary School Students’ Smoking Prevalence: Variation in Time and Across School Types 46

3.3 Smoking Behavior and Friendship 50

3.4 Network Structure and School Organization 57

3.5 Conclusion 59
# 4 Adolescent Tobacco Use in the Netherlands: Social Background, Education and School Organization

## 4.1 Introduction and Research Problem

## 4.2 Theory and Hypotheses
- 4.2.1 Social Background and Adolescent Smoking in the Netherlands
- 4.2.2 Adolescent Smoking and School Type
- 4.2.3 School Organization and Effects on Smoking

## 4.3 Data Analytic Approach

## 4.4 Methods
- 4.4.1 Data
  - 4.4.1.1 Dependent Variable
  - 4.4.1.2 Independent Variables
- 4.4.2 Multi-level Logistic Regression Modeling

## 4.5 Results

# 5 The Social Network, Socioeconomic Background, and School Type of Adolescent Smokers

## 5.1 Introduction and Research Problem

## 5.2 Theory and Hypothesis

## 5.3 Methods
- 5.3.1 Operationalisations
- 5.3.2 Analytic Strategy

## 5.4 Results
- 5.4.1 Results of the Random Intercept Models
- 5.4.2 Results of the SIENA Estimations

## 5.5 Conclusion and Discussion

# 6 The Role of Norm-Enforcing Social Capital for the Smoking Behavior of Dutch Secondary School Students

## 6.1 Introduction and Research Problem
6.2 Theory and Hypothesis

6.2.1 Norm-Enforcing Social Capital and Functional Communities

6.2.2 Friends' Parents, Secondary Friendship Networks, and Adolescent Smoking

6.3 Methods

6.3.1 Operationalisation

6.3.2 Data Analytic Strategy

6.3.3 SIENA Model Specifications

6.4 Results

6.4.1 Results of the Random Intercept Models

6.4.2 Results of SIENA Estimations

6.5 Conclusion and Discussion

### 7 The Influence of Norm-Enforcing and Horizon-Expanding Social Capital on Adolescent Smoking in the Dutch Educational System

7.1 Introduction and Research Problem

7.2 Types of Social Capital and Smoking

7.2.1 Two Types of Social Capital

7.2.2 Smoking and Social Capital around the School

7.2.3 Adolescent Smoking and Social Capital within the School

7.3 Methods

7.3.1 Operationalization

7.3.2 Data Analytic Strategy

7.3.3 SIENA Model Specifications

7.4 Results

7.4.1 Results of the Random Intercept Models

7.4.2 Results of the SIENA Estimations

7.5 Conclusion and Discussion
8 Conclusion

8.1 Summary of the Central Findings

8.1.1 Smoking Behavior among Dutch Secondary School Students  
8.1.2 Dutch Secondary School Friendship Networks and their Relationship with Smoking Behavior  
8.1.3 The Role of Social Background Characteristics for Smoking Behavior among Dutch Secondary School Students  
8.1.4 The Relationship between Smoking Behavior among Dutch Secondary School Students, Type of Education, and School Organization  
8.1.5 The Relevance of Parental Networks in the School Setting, given School Friendship Networks

8.2 Conclusion, Discussion and Directions for Future Research

Nederlandstalige samenvatting

1 Introductie

2 Resultaten

2.1 Het rookgedrag van Nederlandse middelbare schoolleerlingen  
2.2 Nederlandse middelbare schoolleerlingen, hun vriendschapsnetwerken en rookgedrag  
2.3 De rol van sociale achtergrondkenmerken voor het rookgedrag van Nederlandse middelbare schoolleerlingen  
2.4 De relatie tussen het rookgedrag van Nederlandse middelbare schoolleerlingen, schoolniveau en school organisatie  
2.5 Het belang van de netwerken van ouders rondom de school en school vriendschapsnetwerken voor het rookgedrag van Nederlandse middelbare schoolleerlingen

3 Conclusie, discussie en aanbevelingen voor toekomstig onderzoek

Appendix A

Appendix B

References

Dankwoord