



UvA-DARE (Digital Academic Repository)

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

Huisman, C.

Publication date
2013

[Link to publication](#)

Citation for published version (APA):

Huisman, C. (2013). *The smoking chain: friendship networks, education, social background and adolescent smoking behavior in the Netherlands*. [Thesis, fully internal, Universiteit van Amsterdam].

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: <https://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	13
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	61
4.1 Introduction and Research Problem	61
4.2 Theory and Hypotheses	63
4.2.1 Social Background and Adolescent Smoking in the Netherlands	65
4.2.2 Adolescent Smoking and School Type	66
4.2.3 School Organization and Effects on Smoking	67
4.3 Data Analytic Approach	68
4.4 Methods	69
4.4.1 Data	69
4.4.1.1 Dependent Variable	69
4.4.1.2 Independent Variables	70
4.4.2 Multi-level Logistic Regression Modeling	70
4.5 Results	70
5 The social network, socioeconomic background, and school type of adolescent smokers	79
5.1 Introduction and Research Problem	79
5.2 Theory and Hypothesis	80
5.3 Methods	83
5.3.1 Operationalisations	83
5.3.2 Analytic Strategy	86
5.4 Results	88
5.4.1 Results of the Random Intercept Models	88
5.4.2 Results of the SIENA Estimations	91
5.5 Conclusion and Discussion	92
6 The Role of Norm-Enforcing Social Capital for the Smoking Behavior of Dutch Secondary School Students	67
6.1 Introduction and Research Problem	97

6.2 Theory and Hypothesis	98
6.2.1 Norm-Enforcing Social Capital and Functional Communities	98
6.2.2 Friends' Parents, Secondary Friendship Networks, and Adolescent Smoking	99
6.3 Methods	101
6.3.1 Operationalisation	101
6.3.2 Data Analytic Strategy	103
6.3.3 SIENA Model Specifications	104
6.4 Results	105
6.4.1 Results of the Random Intercept Models	105
6.4.2 Results of SIENA Estimations	107
6.5 Conclusion and Discussion	110
7 The Influence of Norm-Enforcing and Horizon-Expanding Social Capital on Adolescent Smoking in the Dutch Educational System	113
7.1 Introduction and Research Problem	113
7.2 Types of Social Capital and Smoking	114
7.2.1 Two Types of Social Capital	114
7.2.2 Smoking and Social Capital around the School	116
7.2.3 Adolescent Smoking and Social Capital within the School	117
7.3 Methods	119
7.3.1 Operationalization	119
7.3.2 Data Analytic Strategy	121
7.3.3 SIENA Model Specifications	121
7.4 Results	123
7.4.1 Results of the Random Intercept Models	123
7.4.2 Results of the SIENA Estimations	126
7.5 Conclusion and Discussion	131

8 Conclusion	133
8.1 Summary of the Central Findings	133
8.1.1 Smoking Behavior among Dutch Secondary School Students	134
8.1.2 Dutch Secondary School Friendship Networks and their Relationship with Smoking Behavior	134
8.1.3 The Role of Social Background Characteristics for Smoking Behavior among Dutch Secondary School Students	135
8.1.4 The Relationship between Smoking Behavior among Dutch Secondary School Students, Type of Education, and School Organization	135
8.1.5 The Relevance of Parental Networks in the School Setting, given School Friendship Networks	136
8.2 Conclusion, Discussion and Directions for Future Research	136
Nederlandstalige samenvatting	141
1 Introductie	141
2 Resultaten	142
2.1 Het rookgedrag van Nederlandse middelbare schoolleerlingen	142
2.2 Nederlandse middelbare schoolleerlingen, hun vriendschapsnetwerken en rookgedrag	142
2.3 De rol van sociale achtergrondkenmerken voor het rookgedrag van Nederlandse middelbare schoolleerlingen	143
2.4 De relatie tussen het rookgedrag van Nederlandse middelbare schoolleerlingen, schoolniveau en school organisatie	143
2.5 Het belang van de netwerken van ouders rondom de school en school vriendschapsnetwerken voor het rookgedrag van Nederlandse middelbare schoolleerlingen	144
3 Conclusie, discussie en aanbevelingen voor toekomstig onderzoek	144
Appendix A	149
Appendix B	159
References	167
Dankwoord	179