From tobacco policy to person

Summary

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Smoking remains one of the leading causes of death and a key driver of inequalities in health between population subgroups worldwide and in the Netherlands. Whilst over a third of adults who smoke in the Netherlands make a quit attempt each year, the process of smoking cessation is often fraught with challenges. Not only is smoking a key driver of inequalities in general health and mortality, but there is also considerable inequality in smoking itself. Certain population groups experience a higher prevalence of smoking and/or greater difficulties with cessation. Determinants of the inequalities in smoking and cessation function at various levels of influence (e.g. political, environmental, social, behavioural and individual) and are modifiable to varying degrees. In this thesis, we explored factors associated with smoking and cessation at the individual, health behaviour, working and living environment, and the general socio-economic, cultural and environment levels.

The research objectives of this thesis are:

1. To explore how demographic characteristics such as age, educational level and sex influence the reach and effectiveness of smoking cessation interventions.
2. To identify areas of improvement for the reach, uptake and sustainment of smoking cessation interventions in the work and neighbourhood settings.
3. To investigate the extent to which exposure to tobacco in the retail environment influences people who smoke.
4. To describe the framing of national tobacco control policy in news media.

This thesis consists of six main chapters, divided into three parts: 1) Smoking cessation interventions and individual health behaviour determinants; 2) Cessation interventions in the context of living and working environments and 3) Smoking cessation policy measures in the context of the retail environment and tobacco industry interference

Smoking cessation interventions and individual health behaviour determinants

In part one, we examined how demographic characteristics, such as age, educational level, gender and receiving treatment for a medical condition may influence the strength and direction of two types of smoking cessation interventions, namely national mass media campaigns (Chapter 2) and individual-level professional behavioural counselling (Chapter 3) on smoking cessation-related outcomes. In Chapter 2, we studied the reach of two mass media campaigns (*You can really quit smoking with the right help* 'Echt stoppen met roken kan met de juiste hulp' and *Stoptober*) in the Netherlands among different population subgroups, and the extent to which exposure to the campaigns were associated with quit attempts and several psychosocial determinants for smoking cessation. These associations were further examined to

see whether they differed among subgroups. We found that people with a lower educational level were most exposed to *You can really quit smoking with the right help* and had an associated increase in quit intentions. For *Stoptober* this group also had increased quit attempts, demonstrating the role that media campaigns can play in reducing socioeconomic disparities in smoking.

In Chapter 3, we compared six different delivery modes of professional behavioural counselling with telephone counselling and compared quit success immediately after counselling and after one year. We also examined differences in quit success based on subgroup characteristics, such as gender, age, educational level and whether one is being treated for a health condition. We found that when chosen by oneself, the delivery mode of smoking cessation counselling does not appear to be important for long-term quit success. However, women, those with a lower or moderate educational level and those with a respiratory or psychological condition were less likely to not be smoking 12 months later. We also found counselling drop out to be associated with younger age, lower education and heavier smoking. Targeted smoking cessation counselling may achieve lower intervention attrition and higher quit rates among these groups.

Cessation interventions in the context of living and working environments

In part two, we explored how the implementation of smoking cessation interventions could be improved to increase intervention reach and participation in workplace interventions and ensure that community-level interventions are sufficiently sustained in the longer term. In Chapter 4, we found that the use of active communications strategies using a personal approach, and making the intervention as accessible as possible through, for example, organising the intervention during working hours and reimbursing the time spent would improve the reach and participation in a workplace smoking cessation intervention in the eyes of employees. Integrating the smoking cessation intervention into wider company vitality policy will also aid continued provision of the intervention.

For smoking cessation interventions in the community setting, a lack of structural funding was one of the most challenging aspects for intervention sustainment (Chapter 5). This influenced several determinants for sustainment at the organisational level, such as staff capacity and time available to coordinate and carry out the intervention. Paying attention to sustainment from the start could prevent problems in the future. This need not be done alone but can best be discussed within a team of stakeholders.

Smoking cessation policy measures in the context of the retail environment and tobacco industry interference

In part three, we looked at the role of the retail environment in purchase behaviour and the way in which policies in the retail environment are portrayed in news media. In Chapter 6, we investigated the role of different forms of exposure to tobacco in the retail environment in making impulse purchases among adults who smoke. We found that several sources of exposure to tobacco in the retail environment are associated with impulse tobacco purchases. We also found that certain groups, such as those who have tried to quit in the past year, are more likely to report being exposed to tobacco in the retail environment and make impulse purchases. These findings provide support for limiting the sale of tobacco to specialist shops to prevent impulse purchases.

Chapter 7 explored the tone of newspaper coverage of three major tobacco control policy measures before their implementation. We focussed on the tobacco industry and its allies, and the framing used in the articles to oppose the three policy measures. We found in the analysis that the presence of the tobacco industry and its allies resulted in more negative portrayal of three major tobacco control policies. The economic frame was the most used frame. Civil society can use this information to prepare strong counter-frames to the economic frame. Secondly, a good relationship between civil society and the media is required so that counter-frames are included in media reporting.

A multi-level approach to smoking cessation

In the first chapter of the thesis, the Dahlgren-Whitehead 'rainbow' model was introduced to illustrate how various factors at different levels influence an individual's health. Although these levels can be examined separately, they often influence each other. This model, which considers both determinants that are both within and outside of the individuals' control, is applicable to tobacco control. The research in this thesis examined smoking cessation determinants at various levels: the level of general socioeconomic, cultural, and environmental conditions; the level of living and working conditions; and the levels of individual and health behaviour characteristics and provides recommendations to improve tobacco control at each of these levels.

Future research

1. Future research should evaluate the effects of the Netherlands' phased restriction of tobacco sales to specialty shops. Understanding the response of the tobacco industry and retail market, as well as assessing the policy's impact on smoking behaviour, will provide valuable insights for other countries considering similar measures.

2. Future research should aim to better our understanding of whether targeted smoking individual-level cessation counselling is more effective than non-targeted counselling, particularly for subgroups who are less likely to achieve quit success, such as women or those with a lower educational level.
3. A systems-thinking approach, though increasingly applied in public health research, is still not widely used. However, it has potential applications in smoking cessation and tobacco control research, providing deeper insight into areas of the system that need the greatest attention, which groups of people are likely to be affected by a change, and where changes may bring about unintended effects.

Implications for policy and practice

1. Cessation support providers should be aware that younger participants, those with lower educational levels, and those who smoke more heavily are more likely to drop out of smoking cessation interventions. Recommendations to support these groups include providing flexibility in the time and places that counselling is available, offering financial incentives for participation, encouraging social contacts to quit smoking and offering a combination of pharmacotherapies where appropriate.
2. The Dutch National Prevention Agreement includes the ambition to reduce the number of points-of-sale to reduce the exposure to and accessibility of tobacco products for non-smoking youth and to reduce impulse purchasing among adults trying to quit smoking. A licensing system in which restrictions are placed on the number or location of specialty tobacco shops, such as density- and/or clustering-based licensing systems would help to address disparities in both density and exposure to tobacco in the retail environment between disadvantaged and non-disadvantaged neighbourhoods.
3. A major policy recommendation stemming from this thesis is for the Dutch government to expand upon current funding and infrastructure to support smoking cessation, including structural funding for mass media campaigns, community-level smoking cessation activities and the reimbursement of more than one cessation attempt per year.
4. Tobacco control advocates should utilise heightened political discussions to promote positive tobacco control frames and refute tobacco industry oppositional frames and claims. The expanded Policy Dystopia Model can be used by advocates to pre-empt oppositional frames.