

2007

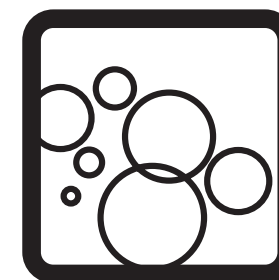


scientific bureau for **research**,  
**expertise** and **consultancy** on  
**lifestyle**, **addiction** and related  
social developments

# Annual Report

2007

**IVO**  
**ADDICTION RESEARCH INSTITUTE**  
Annual Report 2007



## Foreword

We are pleased to present the annual report 2007 for the IVO, Addiction Research Institute, which is the seventeenth report since the institute was founded.

The identity of the IVO is stated as follows: "IVO, scientific bureau for research, expertise and consultancy on lifestyle, addiction and related social developments".

Besides studying different substances like alcohol, hard drugs, cannabis and smoking, we also continued researching addictive behaviours like obesity and problematic internet use. We also studied related social problems like domestic violence and related populations like homeless people.

In addition, the IVO was also asked by e.g. local governments for policy consultancy on lifestyle and addiction.

In 2007 much effort was put into research, education and training. That this work is extremely labour-intensive and demands a considerable amount of resourcefulness, effort and commitment hardly needs to be said. Nevertheless, the board would like to specifically acknowledge this tremendous effort here in the foreword; the board is extremely grateful to management and all scientific and administrative colleagues. The content of this report reflects the many projects involved.

We are proud of all the developments at our institute and it is expected that the IVO will continue to have excellent prospects in the future.

For the board of the IVO, Addiction Research Institute, Rotterdam  
Dr AG Rijntjes, chairman

Annual Report 2007

May 2008

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# introduction

## chapter 1

### Introduction



# Chapter 1

## Introduction

The IVO is primarily a research institute. The goal of the IVO is to acquire and disseminate scientific knowledge about addiction and lifestyles in order to contribute, in this way, towards solving problems related to these themes. Methods for achieving this goal include the following:

- initiating, implementing and coordinating interdisciplinary research
- providing education and training
- providing social services to back up current policies, and serving an advisory function
- providing advise and implementation

The IVO has built up her expertise in the field of social, epidemiological and evaluation research. The following major themes are addressed:

- Alcohol
- Hard drugs, cannabis and new drugs
- Smoking
- Obesity
- Social Relief and Care
- Internet
- Education: Research and Development
- Advise and Implementation

The above themes are studies from two major perspectives: public health, and nuisance and safety.

Two kinds of research are conducted: (purely) scientific, and applied practice-based research. In the (purely) scientific research our aim is to acquire knowledge about the determinants and effects of addiction. This scientific knowledge is then used in the applied research which enables us to more directly contribute (in an evidence-based way) to the main goal of solving practical problems.

Besides initiating, implementing and coordinating interdisciplinary research, lectures are given and attention is paid to social services in the shape of advisory positions and management support activities. The public IVO Report Meetings are organised several times a year. These Report Meetings are chaired by Prof. dr. H van de Mheen (Director Research & Education). Apparently this is a very successful formula that is attracting more people each year. In 2007 four such meetings were organized.

The IVO started with research in the field of alcohol consumption and illegal drugs. More recently the research scope has been extended to encompass other lifestyles (such as smoking and obesity), other marginalised groups (such as homeless people and prostitutes), and other, sometimes new, forms of addictive behaviour (like gambling and compulsive internet use). With respect to (illegal) drugs, new substances are continuously emerging that need our attention, including base-coke and XTC.

Also with respect to 'older' substances, new insights into the effects on physical and psychological health lead to new lines of research. Research is not only aimed at the causes and effects for the individual user, but increasingly also at the effects for the immediate and wider society.

The IVO is supported by five major participants: Erasmus MC, Maastricht University (UM), Radboud University Nijmegen (RU), Tilburg University (UvT), and the 'Stichting Volksbond Rotterdam' (Volksbond Foundation Rotterdam).

The IVO is strongly embedded in the scientific world, as evidenced by its four participating universities. Important for the strong and stable position of the IVO as a whole is that all four universities have developed their individual areas of expertise. Tilburg specializes in health care research, Nijmegen in adolescence and substance use, Maastricht in sociological drugs and alcohol research, and Rotterdam covers the broad field of lifestyles and addiction from a public health perspective.

In this annual report the IVO projects are presented per research theme. We will describe all projects that are completed, continued or started in 2007.

Research is needed to reduce the problems related to substance use and addictive behaviour. There is a lack of evidence-based knowledge on causes and determinants.

The effectiveness of treatment and prevention has in many cases still to be proven. We need more research to provide knowledge about what measures are possible and effective for the individual user and for society. Therefore, much remains to be done to achieve our goal. This annual report is a reflection of that ongoing process.

# chapter 2

## List of projects



# Chapter 2

## List of projects

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# chapter 3

## research

### Research themes





# Chapter 3

## Research themes

In this chapter the research projects will be discussed per research theme. For each project the aim, methods, results and researchers are described.

## Alcohol

### 1 Registration of alcohol and drug-related acute health damage

#### Aim and research questions

This study aims to develop and implement a general model to register acute alcohol and drug-related health damage. The registration targets two policy goals. Firstly, measurement and verification of the effects of alcohol and drug policy will be made possible by the available research data. Secondly, knowledge of the determinants of health damage is needed for the development of interventions (both prevention and curative).

#### Methods

The most obvious location to monitor acute health damage caused by alcohol or illicit drug use is the emergency room. The development of an effective registration system should include the existing registration at the hospitals. Four participating hospitals (Meander MC Amersfoort, Scheper Ziekenhuis Emmen, Academisch Ziekenhuis Maastricht and the Erasmus MC) registered alcohol and drug use for a few months using a self-report questionnaire. Patients filled in the questionnaires in the waiting room or in the treatment room. Emergency room staff registered patients unable to fill in the questionnaires themselves. The collected data were merged with the existing hospital registration system.

#### Results

The project (development stage and implementation stage) leads to recommendations regarding the assessment of alcohol and drug use among emergency room patients in hospitals. The report on these methodological issues, the prevalence of alcohol and drug use and the patient characteristics of those positive for alcohol and drugs in the participating regions are included in the final report. The dissertation "A trip to the Emergency Room" is published in 2007.

The dissertation concludes that the main methodological issues involved in emergency room studies are the characteristics of the alcohol and illicit drug use measures, and sample selection bias. The preferred measure to study alcohol and illicit drug use among emergency room patients in order to determine a relationship between their substance use and the reason for the emergency room visit, is self-report. In contrast to the biochemical markers, often labelled as the gold standard, self-report provides more reliable data on the actual use prior to the injury/ illness event. Besides the measures used, the method of data collection and sample bias also influence the study results. Alcohol was reported by 10 to 18% of the patients and illicit drug use was admitted by 2 to 8% of the emergency room patients, with both groups more likely to be males, excessive drinkers and with combined use of substances. The results of our study indicate that: interventions could be initiated at the emergency room, and should focus more on a patient's alcohol use than on illicit drug use because alcohol use is easier to detect, less region specific, more prevalent, and for which more effective interventions are available.

#### Researchers

dr SG Vitale (researcher IVO till 3/2005/ PhD student), drs G Rodenburg (researcher), prof dr H van de Mheen (project leader, copromotor), MJ Audenaerdt (project leader), prof dr HFL Garretsen (promotor), dr A van de Wiel (copromotor, Meander MC)

In collaboration with Meander Medical Center

Term November 2002 - February 2007

Financing Ministry of Health, Welfare and Sports

### 2 Prevalence of problem drinking in the Netherlands

#### Aim and research questions

In the 1980s, the prevalence of problem drinking was studied for the first time in the Netherlands in the city of Rotterdam and in the province Limburg. The current study is the first national study on the prevalence of problem drinking in the Netherlands and has been derived from the document "Alcohol policy in the Netherlands: 2001-2003 ". It was designed to be comparable with earlier research into problem drinking in regional general populations. The main research question is: What is the prevalence of problem drinking in the Netherlands?

Three additional research questions were formulated:

- Are there any differences in the prevalence of problem drinking between the current findings and those findings from earlier research?
- Are there any differences in the prevalence of problem drinking according to gender, age, ethnic backgrounds, region, urbanization, work and family situation?
- What is the relationship between drinking pattern and alcohol-related problems?

Besides the focus on alcohol and alcohol-related problems, measures for binge eating and shape concern have been included in the study.

#### Methods

The present survey was carried out in the Dutch population aged 16-70 years. Autumn 2003, a random sample of 16,000 people in the Netherlands received a questionnaire "Lifestyle and well-being". A random sample survey was taken from the non-responders. In February-March 2004, 600 non-responders were contacted by telephone for a non-response interview. In autumn 2004, about 2000 non-problem drinkers and about 400 problem drinkers were contacted for a follow-up interview by telephone.

#### Results

The results of the prevalence of problem drinking in the Netherlands has been reported in 2005. The most important results are that 10,3% of the Dutch population between 16-70 years is problem drinker. These persons not only drink alcohol above a certain level but also report various negative consequences of alcohol consumption.

The incidence, remission and chronicity of problem drinking has been reported in 2006. The results show a) a relatively high chronicity among youngsters and b) a relatively high percentage of youngsters among new problem drinkers. It is concluded that at present youngsters are the most important target group for primary and secondary prevention.

#### Researchers

drs D van Dijk (PhD student), prof dr RA Knibbe (promotor), dr BJB Boon (copromotor), prof dr HFL Garretsen (promotor)

**In collaboration with** Department for Research and Statistics, City of Amsterdam (Dienst Onderzoek en Statistiek Amsterdam)

**Term** 2003 - 2008

**Financing** Ministry of Health, Welfare and Sports

### 3 Drinking motives in Adolescence

#### Aim and research questions

Although motives are thought to be an important determinant of young person's drinking, in Europe few studies have explored this topic. Studies exist from the USA, but these vary widely in how the concept of

motives is measured. The aim of this study is to replicate and validate, in a European setting, the theoretically and conceptually well-founded instrument of Cooper to measure motives for drinking alcohol. In addition, the explanatory power of motives compared with the (more often used) concept of expectancies and the relevance of motives to explain beverage choice, bullying behaviour and risky drinking are also explored.

#### Methods

A literature study was used to describe the way motives are presently measured and the theories behind motives.

A sample of more than 5000 Swiss students aged 12-18 years students were used to analyze the research questions. Of these students, 71% was German speaking, 22.3% French speaking, and 6.7% Italian speaking.

#### Results

The literature study shows that there is a large variety in how motives are measured. However, some dimensions of motives tend to be implemented in most studies, especially drinking for social reasons and drinking for enhancement reasons. Other dimensions used in studies are drinking to cope and drinking to conform. Another literature study showed that the relevance of these motives differ according to gender and age. The two categories most likely to be at risk for excessive drinking are extrovert sensation-seeking boys who drink for enhancement reasons and neurotic, anxious girls who drink for coping motives.

Analysis of the Swiss dataset shows that the scale for motives that Cooper developed functions very well in a (multi-cultural) European country, and that the concepts have the expected relations with alcohol use and drinking problems. Compared with expectancies, motives appear to be a more proximate factor explaining drinking behaviour. The study on the relation between motives, beverage choice and level of alcohol consumption shows that in most cases the relation between beverage choice and level of alcohol consumption is mediated by motives. In two cases the relation between beverage choice and consumption was moderated by motives. The relation between a preference for alcohol 'pops' and spirits and actual alcohol consumption was moderated by social motives. Social drinkers who preferred alcohol 'pops' drank less than social drinkers who prefer other types of beverages. Coping drinkers who preferred spirits drank more than those who preferred other drinks. The study on motives and bullying indicate that drinking motives likely play a role in other problem behaviours besides excessive drinking.

#### Researchers

E Kuntsche MSc (PhD student SIPA), dr G Gmel (copromotor, SIPA), prof dr RCME Engels (promotor), prof dr RA Knibbe (promotor)

**In collaboration with** SIPA, the Swiss Institute for the Prevention of Alcohol and Drug Problems

**Term** January 2003 - November 2007

**Financing** SIPA

## 4 Predictive value of young people's smoker and drinker prototypes: Tests using innovative designs

### Aim and research questions

A promising concept for the explanation of young people's alcohol use is the role of young people's social images associated with alcohol use. Youngsters have clear and salient social images of the type of people their age who engage in alcohol use. Their perceptions of the typical drinker are also referred to as 'prototypes'. The relationship between drinker prototypes and young people's alcohol intake is well established. However, the existing research stems from correlational studies that are based on adolescents' self-reports. No definite conclusions can be drawn about the predictive value of drinker prototypes on youngsters' actual drinking behaviour, the direction of the relationship between these two variables, and possible moderation effects of contextual and individual characteristics. The aim of the present project is to critically examine the true value of prototypes in predicting actual alcohol use among young adults.

The study will address the following questions:

- Are young people's drinker prototypes related to their actual drinking behavior in a social drinking context?
- Do youngsters imitate the drinking behavior of a confederate representing a favorable drinker prototype?
- Do drinker prototypes have a stronger impact on young people's drinking behavior within a favorable normative context towards drinking compared to an unfavorable normative drinking context?
- Are drinker prototypes more influential among people with an increased social comparison tendency and who are triggered by collective associations with their identity?

### Methods

The research questions will be answered by employing observational experiments in a naturalistic drinking setting. The proposal consists of four observational studies among weekly drinking students conducted in a bar lab. Drinker prototypes will be manipulated by working with confederates who either display positive or negative image characteristics combined with a specific drinking pattern (alcohol or soda).

### Results

The first research question was explored among 200 college students who participated with their group of friends in evaluation research on alcohol prevention campaigns (cover story). In a pre-test, participants filled out questions about drinker prototypes and drinking behavior. Participants' actual drinking behavior was observed during a break in the bar lab. Findings showed that students' drinker prototypes were related to their observed drinking behavior, over and above the impact of their group of friends.

### Researchers

dr R Spijkerman (researcher), prof dr RMCE Engels (project leader), prof dr FX Gibbons (advisor, Iowa State University)

**Term** June 2007 - March 2011

**Financing** Netherlands Organisation for Scientific Research (NWO)

## 5 Coronary heart disease and the interaction of alcohol consumption, causal attribution and stress

### Aim and research questions

This project aims to establish whether moderate alcohol intake has a positive effect on the development of coronary heart disease. Special reference is given to possible alternative explanations of the observed J-shaped curve, centering on questions of selection and causation. Alternative hypotheses concern the effects of the methodology in epidemiological studies, and psychological aspects of drinking behavior and health.

### Methods

A cohort of about 32,000 persons has been recruited via general practitioners; 34 general practices located in the southern and western part of the Netherlands participated. Approximately 16,000 men and women aged 45-70 years responded to the baseline questionnaire and were followed over a five-year period. Data collection consisted of three parts. First, the respondents received a follow-up questionnaire annually. Second, all health problems during life were registered by the general practitioners. Finally, the general practitioners reported all persons diagnosed with myocardial infarction or who died during follow-up.

### Results

The Lifetime Drinking History questionnaire (LDH-q) is a new self-administered questionnaire used in the present study; previously only interview data were available on this topic. Therefore, the reliability and validity of the LDH-q were examined. It was concluded that the LDH-q was reliable and valid, and comparable to interview formats asking about lifetime drinking.

It was investigated if there were differences between respondents and non-respondents regarding health variables (at baseline), and (prospective) mortality risk. Results showed that among respondents coronary heart disease was more prevalent. Compared with respondents, non-contacts had a higher mortality risk during follow-up. Refusals more often had hypercholesterolaemia, and less often coronary heart disease, or diabetes mellitus, compared to non-contacts. The paradoxical results that respondents are less healthy at baseline, but prospectively have a lower mortality risk may suggest a selection effect indicating that the 'worried ill' are more inclined to participate. This effect could imply that observed relationships between risk factors or behaviors and outcomes in cohort studies may be attenuated.

The relationship between life events and alcohol consumption, and the possible effect of coping and social support on this relationship, and gender differences were examined prospectively. It was found that, independent of stressful life events, coping styles and social support were associated with drinking level. Scoring high on cognitive coping, and having a higher frequency of social contact was associated with a lower alcohol use, whereas scoring high on action coping and receiving more actual social support was associated with a higher alcohol use.

Gender was not found to modify the relationship between life events and alcohol use. However, the occurrence of stressful life events does affect alcohol use depending on the score on the emotion coping subscale. It seems plausible that after experiencing a negative life event, alcohol use increases in persons who score high on emotion coping. A passive, resigned, indulgent and self-accusatory coping style thus seems to be a vulnerability factor in the stress-alcohol use connection.

Alcohol consumption was measured using different methods. First the LDH-q, but also a Quantity-Frequency questionnaire about alcohol intake over the past year and a Weekly Recall about actual consumption in the past week. These three methods were analyzed for association with incidence of cardiovascular diseases and all-cause mortality. Alcohol consumption in the past week was found to be associated with morbidity and mortality in the follow-up period of 5 years. Less effect was found for alcohol consumption over the last year, and for lifetime intake and consumption in the distant past no association was found. Difference in disease burden did not change the observed relationship between alcohol intake and cardiovascular events, and only partially the U-shaped relationship between alcohol intake and all-cause mortality. Pre-existing disease appears, therefore, to be only a partial explanation of both observed relationships. With data from the LEGO study, it was determined whether diabetics and non-diabetics differ in alcohol intake. Secondly, the association of alcohol intake with risk of cardiovascular events, and all-cause mortality was assessed in diabetics. Diabetics at baseline and those diagnosed with diabetes during the 5 years of follow-up showed similar drinking patterns. Diabetics less often drank alcohol at baseline compared to non-diabetics. Diabetic men who did not drink or drank occasionally appeared to have a higher risk for cardiovascular events and all-cause mortality compared to those drinking moderately. For diabetic women, never and occasionally drinking seemed to be associated with higher risks for cardiovascular events compared to moderate drinking.

The dissertation of IHM Friesema was published in September 2006.

Title: Alcohol and cardiovascular disease; A longitudinal study on the impact of intake measurement and health status.

#### Researchers

drs MY Veenstra (PhD student till 8/2006), dr IHM Friesema (PhD student till 1/2006), dr PHHM Lemmens (project leader, copromotor), prof dr MJ Drop (+) (promotor), prof dr HFL Garretsen (promotor), prof dr JA Knottnerus (promotor, Maastricht University), dr PJ Zwietering (copromotor, Maastricht University)

In collaboration with Maastricht University

Term 1996 - 2008

Financing Netherlands Heart Foundation, STIVA, IVO, Erasmus University Rotterdam, Maastricht University

## 6 Process evaluation 'Laat je niet flessen!' ('Do not be fooled!')

#### Aim and research questions

Adolescent alcohol use in the south-east region of Brabant has recently increased and is higher compared to other regions in the Netherlands. This has motivated 21 municipalities in the south-east region of Brabant to start the project 'Laat je niet flessen!', aimed at developing an effective alcohol policy for adolescents under the age of 16 years (the legal drinking age in the Netherlands). Over a 4-year period, all aspects regarding the supply, promotion, education and regulation of alcohol use will be explored.

The project incorporates an effect evaluation and a process evaluation. The process evaluation will be conducted by IVO and has two goals: 1) to detect impeding and facilitating factors during implementation of the project, in order to make necessary adjustments along the way, and 2) to systematically collect information regarding implementation and progression of the project, to transfer to other regions and municipalities in the Netherlands when successful.

#### Methods

Research activities are aimed at the three central aspects of the project: 1) education and social basis, 2) regulation and compliance, and 3) assertion of laws and regulations. These aspects are covered by three project groups.

Each year, employees of municipalities and other relevant parties, such as the police and the municipal health authority, will be interviewed by telephone. In addition, focus groups will be compiled with members of the three project groups. After each year, results of the measurement will be reported to the general project group.

#### Results

Measurements of the first year are completed. The results indicate that the project has finished the preparatory phase and implementation of activities has begun. The second measurement will start after the summer of 2008.

#### Researchers

drs A Risselada (researcher), dr RJJM van den Eijnden (project leader)

In collaboration with Region Eindhoven (SRE)

Term 2007-2010

Financing Volksbond Foundation Rotterdam (Stichting Volksbond Rotterdam)

## 7 Like father like son: a longitudinal study on differential family and peer influences on adolescent drinking behavior

#### Aim and research questions

This project focuses on the influence of parents and peers on the development of drinking behavior of adolescents. Although in the past decades numerous research projects have concentrated on the impact of parents on their offspring's risk behaviors (Engels, 2000; Petraitis & Flay, 1995; Conrad et al., 1992), many issues are still unresolved. First, the majority of studies concentrated on parental own engagement in risk behaviors as well as general parenting practices as precursors of adolescent risk behaviors. Nonetheless, less is known about the ways parents specifically deal with (adolescent) drinking at home: alcohol-specific socialization. In addition, it is important to focus attention on the moderating and mediating effects of parenting, the quality of the parent-child bond, and parental own risk behaviors.

**Methods**

Although in the field of adolescent substance use most studies focus on individual adolescents, for the study of the relative impact of parents it is relevant to employ a full-family design, in which the effects of parenting on siblings' behaviors can be studied. A full-family design also allows the opportunity to compare shared and non-shared peer influences on adolescent substance use. The project contained 428 families at the first time point (fall 2002).

**Results**

The project revealed ample interesting findings. It appeared that both alcohol-specific parenting and general parenting (control) are important in the development of adolescents' alcohol use. More specifically, parents are able to delay the age of alcohol onset by setting strict rules about adolescents' drinking. The influence of strict alcohol-specific rules declines when youths already use alcohol on a relatively regular basis. It seems that parents become less strict about their children's alcohol use over the years. They are stricter about the alcohol use of their second born than of their first born in the family. However, as the second born reaches the age of the first born, parents appear to be less strict about the alcohol use of the second born than they were of the first born at that age. This suggests that younger siblings are more at risk of developing heavy drinking. In addition, adolescents' personality traits do not have an impact on the association between alcohol-specific rules and adolescents' drinking. Furthermore, parents who monitor their offspring's daily lives lower their adolescent children's future alcohol use. However, alcohol-specific rule setting mediates the link between parental monitoring and adolescents' use (and between parental alcohol use and adolescents' use).

Another interesting finding was that parental attachment does not affect adolescents' drinking over time, but adolescents' drinking lowers the attachment relationship between parents and adolescents. Adolescents' alcohol use also lowers monitoring efforts of parents.

Parents hardly seem to specifically monitor their adolescent children's alcohol use, since most parents are not aware of the drinking habits of their children. Parents do seem to know when their children are abstainers, but not when their children start to drink and how much they drink. Further, it has been suggested that parents should drink with their adolescent children at home in order to teach them to control their alcohol use. The current project showed that this does not happen: the more adolescents drink at home, the more they will subsequently drink outside the home and vice versa. Parents are not able to control this development by drinking with their children. On the other hand, the best friends of adolescents also have no impact on this development.

Nevertheless, the more alcohol the best friend drinks, the more the adolescent drinks. The same holds for parental alcohol use, especially the alcohol use of the fathers.

Finally, the results show that older siblings have a moderate effect on younger siblings drinking behavior; the more the older sibling drinks, the more the younger sibling drinks.

**Researchers**

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In collaboration with University Utrecht

Term 2002 - 2007

Financing Netherlands Organization for Scientific Research (NWO), Innovational Research Incentives (Vernieuwingsimpuls)

## 8 Social determinants of the development of alcohol use in adolescents and young adult Dutch twins

**Aim and research questions**

This project focuses on the role of parents, friends and siblings on the development of drinking behavior of adolescents and young adults. In the past decades numerous research projects have concentrated on the impact of parents on their offspring's risk behaviors (see reviews by Engels, 2000; Petraitis & Flay, 1995; Conrad et al., 1992) in designs with individual children and/or parents showing robust empirical evidence for the generational transmission of alcohol use. Longitudinal studies have demonstrated the enhancing effect of family drinking (e.g. Chassin et al., 1998; Duncan, Duncan, & Hops, 1998; Engels et al., 1999) and parental alcoholism (e.g. Chassin, Curran, Hussong, & Colder, 1997) on onset of regular drinking and heavy alcohol use in middle and late adolescents. Although some personal (e.g. self-efficacy, expectancies, self-awareness, personality traits) and family factors (e.g. bonding, attachment, communication) may buffer the effects of parental drinking on their offspring's use, there is ample support for the impact of parental drinking on the development of adolescent drinking. Still, many issues are still unresolved.

**Methods**

We aim to deal with these shortcomings by performing prospective analyses on data of the twin register of the VU that has been collected since 1991. This project will provide substantial new information about (a) the relative role of parents and peers in the development of drinking behavior and (b) the underlying mechanisms of the associations between environmental factors and drinking behavior.

**Results**

It is shown that: (a) drinking of fathers and mothers is cross-sectionally related to regular drinking and that fathers' drinking consistently predicts problem drinking in their offspring; (b) drinking of siblings other than the co-twin hardly contributes to regular drinking and problem drinking; (c) drinking of the co-twin is a strong risk factor for regular drinking, in particular cross-sectionally and over a short period of time, but drinking of the co-twin does not predict problem drinking; (d) drinking of friends is cross-sectionally strongly associated with regular drinking, and drinking of friends is a risk for regular drinking and problem drinking over a period of two years but not over a period of seven years; (e) friends' drinking is cross-sectionally and over a short period in time more relevant than parental drinking, while over a longer period of time parents remain important and friends' drinking is no longer relevant; (f) genes are most important in explaining the variation in the initiation of alcohol use in early adolescence (12-15 years) (83% in males and 70% in females);

(g) common environment explains most of the variation in the frequency of drinking in early adolescence (12-15 years) (82% in both males and females); (h) both genes and friends' drinking explain the variation in frequency of drinking and regular drinking in adolescents and young adults (16-25 years), and (i) similarity in drinking between friends of twins moderated the estimates of heritability and common environment.

#### Researchers

drs EAP Poelen (PhD student), prof dr RCME Engels (promotor), dr RHJ Scholte (copromotor), prof dr D Boomsma (promotor, Free University Amsterdam), dr G Willemsen (copromotor, Free University Amsterdam)

In collaboration with Free University Amsterdam

Term 2003 - 2007

Financing Radboud University Nijmegen

## 9 Excessive alcohol consumption of young adults on holiday: innovation and evaluation of prevention

#### Aim and research questions

Research has shown that young men on holiday in seaside camping resorts in the Netherlands binge drink almost every day of their stay. This drinking pattern leads to daily drunkenness, serious cases of alcohol poisoning, and accidents. Every year a summer campaign is launched in most seaside communities aimed at increasing knowledge about alcohol use. Although that goal is reached, a reduction in alcohol use has not been shown. In this project, two new prevention methods are implemented and evaluated: a Community Intervention (CI) approach and an Expectancy Challenge (EC). The CI is aimed at reaching consensus between local actors (e.g. shopkeepers, bar owners, camping site attendants, police, city council) on a more restrictive approach to youngsters drinking excessively. The EC is an intervention that has been used with college students in a bar laboratory. In this study, the EC is performed with young men on holiday. The intervention embodies the creation of a situation in which young binge drinkers experience for themselves that their positive expectancies for high doses of alcohol are not sustainable.

The main questions are:

- How can ECs be done in a holiday setting?
- What is the influence of an EC on young people's alcohol expectancies and use during and after their holiday?
- How can a CI aimed at reducing alcohol use in young people on holiday be achieved?
- Does a CI influence the alcohol use of young people on holiday?

#### Methods

Quasi-experimental (EC) and case-control (CI) research designs.

#### Results

ECs conducted in the summer of 2004 on Terschelling have increased negative-sedation expectancies in

young men during and after the vacation (compared with controls on Texel). Positive-arousal expectancies were not lowered. The intervention resulted in a stronger decrease in alcohol consumption on a regular night out (after the vacation) in the heaviest drinking EC group compared to the heaviest drinking control group. Furthermore, on Schouwen-Duiveland an alcohol covenant was signed by local actors. The CI initiated in that municipality will continue.

Factors associated with alcohol use by young people on holiday have been identified. Drinking behaviour in 'normal' life is positively associated with alcohol use on holiday, as well as the number of male friends with whom the holiday is spent. Certain availability indicators (amount of money to spend, switching of armbands that indicate age, awareness of camping rules) are also significantly related to consumption on holiday.

#### Researchers

drs J van de Luitgaarden (PhD student), prof dr RA Knibbe (promotor), prof dr RW Wiers (promotor)

In collaboration with NIGZ (Netherlands Institute for Health Promotion and Disease Prevention), Maastricht University

Term August 2002 - August 2008

Financing Netherlands Organisation for Health Research and Development (ZonMw)

## 10 Gender, alcohol and culture: an International Study (GENACIS)

#### Aim and research questions

IVO has been the Dutch base for research on aspects of alcohol and gender for several years. An earlier eight-country BIOMED study has now developed into the wider project called GENACIS (Gender, Alcohol and Culture, an international study) in which more than 35 countries are involved. The participants are as diverse as Argentina, Australia, Canada, India, Japan, Kazakhstan and the USA. The focus of the Dutch contribution has been to describe alcohol-related problems in all countries included in the GENACIS data set, and on gender and country variation in the informal control of drinking.

#### Methods

Surveys among general populations.

#### Results

A series of articles is in preparation on the influence of gender and social roles on alcohol in different countries.

The focus of the first paper is on informal control of drinking, indicated by criticism of people in the social network on someone's alcohol consumption. The main research questions concern country and gender differences in the extent drinkers suffering from typical symptoms of heavy or prolonged alcohol use report informal control from others (reactive informal control), and country and gender differences in the extent comments on someone's drinking are (also) directed at those who do not suffer from these symptoms



(pro-active informal control). The results show that men suffering from suffering from typical symptoms of heavy or prolonged alcohol use are more likely to be criticized than equivalent women (reactive control). Irrespective of gender, reactive informal control is more prevalent in poorer countries and in countries with a high proportion of abstainers. Concerning pro-active control, among women a larger part of criticism appeared to be directed at those who (as yet) do not suffer from symptoms typical for heavy or prolonged alcohol use. There is a lot of variation between countries in pro-active informal control. This variation is only weakly related to prosperity of a country but not to its proportion of abstainers.

The aim of a second paper is to look at the country variations in how family members attempt to influence each other to drink less. The results show that whilst the countries differed a lot as to which proportion of drinkers reported having experienced family members' pressuring to drink less, drinking women in all countries reported this less than drinking men in their own society. In all of the countries studied, the person carrying out the informal pressure is most often the spouse or sexual partner. However, also other family members had acted in this way. Informal pressuring was highly correlated with the country's socio-economic conditions. It is concluded that informal pressuring of family members' drinking is on one hand an expression of social deprivation and family problems caused by heavy drinking especially in the economically less developed countries. On the other hand, similar type of gender difference is to be seen in all the societies examined, men reporting more informal pressuring than women. Informal pressuring to drink less reflects the gender conflict caused by heavy use of alcohol in all of the countries studied.

#### Researchers

S Kuntsche MSc (researcher, SIPA), prof dr RA Knibbe (project leader), dr J Joosten (researcher), M Derickx (research assistant).

**In collaboration with** SIPA (Switzerland)

**Term** January 2002 - January 2010

**Financing** EU, WHO, NIAAA

## 11 Research on perpetrators who commit alcohol-related crime

#### Aim and research questions

According to the Foundation for Addiction Rehabilitation (SVG) special intervention is needed for the group of perpetrators who commit alcohol-related crime. However, the Ministry of Justice requires a report in which the need for a special intervention is supported by research. IVO was asked to conduct such a research. The research question is: Is there a specific intervention needed for the group of offenders who commits alcohol-related crime, and if so, what kind of intervention is needed?

#### Methods

The research started with an extensive search of the (inter)national literature. Second, we analyzed two documents which contain statistical information on delinquents. These documents made it possible to

compare the group offenders who commit alcohol-related crime with other relevant offenders or suspects who have problems with alcohol and/or drug use or problems with gambling. Finally, some statistical analyses were made to compare the results from the personal files of offenders with a community service, and the personal files of offenders who are sentenced to imprisonment.

#### Results

There is a significant difference between offenders with a community service who commit alcohol-related crime and other offenders. One of the main findings is that, whereas crime against property is more often committed by other offenders, those offenders who committed alcohol-related crime more often commit violent crime, and victims are more often involved, and there are multiple offenders.

#### Researchers

SM Ganpat MSc (researcher), dr RJJM van den Eijnden (project leader)

**Term** 2007-2008

**Financing** Foundation for Addiction Rehabilitation (SVG)

## 12 Development and examination of a brief intervention for adolescents treated in a hospital emergency room because of excessive alcohol use

#### Aim and research questions

Aim of the study is to develop and test a brief intervention for adolescents who have to be treated in the emergency room of a hospital due to excessive alcohol use.

The research question is: What is the effectiveness of a brief intervention aimed at adolescents who are treated for an injury resulting from excessive alcohol use in the emergency room of a hospital?

Excessive alcohol use is defined as consumption of 6 or more alcohol units on a single occasion.

#### Methods

This study consists of a brief intervention for adolescents who, due to excessive alcohol use, have to be treated in the emergency room of the Meander Medical Center in Amersfoort and the Erasmus MC in Rotterdam. Participants randomized in the experimental group will be invited for an interview 7-10 days after their visit to the emergency room. In this interview, a staff member of the prevention department of Parnassia Psychomedical Center will discuss the participants' individual alcohol use and accompanying harmful consequences, using the principles of motivational interviewing. The effect of this intervention will be compared with that of a randomized control group which includes participants who did not receive any intervention.

Measures that will be used for comparison are excessive alcohol use and risky behaviour after alcohol consumption. These measures are included in a follow-up questionnaire, which will be sent to participants 6 months after the intervention (experimental group), or 6 months after their visit to the emergency room (control group).

**Results**

Data collection is currently in progress; results are not yet available.

**Researchers**

dr EAM Oliemeulen (researcher), drs A Risselada (researcher), prof dr H van de Mheen (project leader), dr RJJM van de Eijnden (project leader)

**In collaboration with** Meander Medical Center, Parnassia Psychomedical Center, Erasmus MC

**Term** January 2006 - December 2008

**Financing** Netherlands Organisation for Health Research and Development (ZonMw)

### 13 Experimental Observational Studies on Peer Influence Processes and Alcohol Consumption

**Aim and research questions**

Reviews of theories on adolescents' substance use state that peer influences are the most consistent and strongest factor in the initiation and maintenance of substance use (Harris, 1995; Petraitis, Flay & Miller, 1995). When young people are in the company of drinking peers, they tend to **imitate** their peers' drinking behaviours.

However, recent longitudinal survey research does not provide convincing evidence that adolescents are highly susceptible to peer influences on alcohol use as predictions are quite weak. This does not necessarily imply that young people do not imitate each other in drinking behaviour. In this project, we start from the assumption that observational methods that capture the dynamics of peer interactions may be more suitable to test the effect of peers on individual drinking. More specifically, this project examines the conditions under which people imitate peer behaviour by employing an experimental observational paradigm in which youngsters are confronted with peer drinking in a naturalistic context (a bar lab).

The aim is to test the effects of exposure to a drinking peer on individual drinking levels in an **ad lib** drinking context. We also examine whether imitation effects differ in same-sex and opposite sex dyads, and whether effects depend on the development of dyadic interaction both in real-time and over two consecutive sessions.

**Methods**

To study respondents' drinking in a naturalistic setting, this project consists of at least four experimental observational studies in a bar lab located at Nijmegen University. The advantage of conducting observational experiments in a naturalistic setting is that people generally display more typical, real-life behaviours than in a clinical lab setting. To assess interaction patterns that develop over time, we use the state space grid method. This approach offers an intuitively appealing way to view complex, interactional behaviour, by displaying dyadic interaction moment to moment as it stabilizes into particular patterns and as those patterns change over time.

**Results**

The first experimental study showed that youths who were exposed to heavy drinking models consumed more alcohol compared to those exposed to light-drinking and non-drinking models. As expected, after controlling for craving and weekly drinking, the mean differences in the amount of alcohol consumed between the three conditions were substantial. Also, as anticipated, in general men consumed more alcohol than women in the 30-minute observational sessions. Moreover, no gender differences were found in the levels of imitation since the interaction between condition and gender was not significant. This first study extends previous results by demonstrating that imitation of alcohol consumption also occurs in an ad lib naturalistic drinking context. Although women generally drank less than men, the extent of imitation was similar in both groups.

**Researchers**

H Larsen (PhD student), prof dr RCEM Engels (promotor), dr I Granic (copromotor, The Hospital for Sick Children, Toronto), dr G Overbeek (copromotor)

**In collaboration with** The Hospital for Sick Children, Toronto, Canada

**Term** 2006 - 2011

**Financing** Netherlands Organisation for Scientific Research (NOW) / MaGW open competition Radboud University Nijmegen, Behavioural Science Institute

### 14 Effectiveness of a computer-tailored intervention in males with excessive alcohol consumption

**Aim and research questions**

Aim of the study is to measure the effectiveness of a computer-tailored intervention in males with excessive alcohol consumption, as compared to the effect of a standard brochure on alcohol. Primary research question of the study is: Is a computer-tailored intervention more effective in reducing alcohol intake in males with excessive alcohol consumption, than a standard brochure on alcohol? Excessive alcohol use in this study is defined as 'consumption of 21 or more alcohol units a week' and/or 'consumption of 6 or more alcohol units on one drinking occasion at least once a week'.

**Methods**

Male respondents aged 18 to 65 years are selected based on their alcohol consumption. Respondents are randomly assigned to the experimental condition (computer-tailored feedback on personal alcohol consumption) and control group (standard brochure). Both were told the cover story that they are invited to assess new education materials concerning alcohol.

Respondents from the experimental group complete the computer-tailored program ([www.drinktest.nl](http://www.drinktest.nl)) in the behavioural laboratory, whereas those in the control group were asked to read the brochure. Next, all respondents are asked to fill in a short questionnaire in order to evaluate the materials (program and brochure). One month after their visit to the behavioural laboratory, respondents receive a first follow-up



questionnaire. A second follow-up questionnaire is sent six months later. Both questionnaires include items regarding respondents' alcohol consumption and behavioural determinants of alcohol consumption, such as beliefs, attitudes, intention, knowledge, risk perception, and alcohol expectancies.

### Results

Analysis showed that in the experimental condition 42% of the participants were successful in reducing their drinking levels to below the norm at one month follow-up as compared to 31% in the control group; this difference was statistically significant. At six months follow-up, the success rates were 46% and 37% in the experimental and control conditions, respectively, but this difference was no longer significant. Tailored online advice on alcohol consumption appears to be an effective and easy way to change unhealthy drinking patterns in adult men and is perhaps best offered as a first step in a stepped care approach.

### Researchers

drs A Risselada (researcher), drs A Vogelzang (researcher), drs SM Ganpat (researcher),  
dr BJJ Boon (project leader)

**In collaboration with** Netherlands Institute for Health Promotion and Disease Prevention, (NIGZ), Survey Sampling International

**Term** January 2006 - December 2007

**Financing** Netherlands Organisation for Health Research and Development (ZonMw)

## 15 Social roles and alcohol consumption: a European study

### Aim and research questions

That alcohol consumption is also connected with the societal and social position of a person is rarely doubted. However, few theories make explicit which relations one can expect between the social position and alcohol consumption.

One of these theories is the social role theory; its central assumption is that the more social relevant roles a person has, the less opportunities he/she has to drink to excess; conversely, the fewer social roles a person has, the more likely that person may use situations in which alcohol is consumed to structure his/her daily life.

This study focuses on three main problems:

- How do the three main position roles (living with a partner, paid employment and care for children) interact with gender and social class to explain alcohol consumption?
- To what extent do European countries differ in how position roles are related to alcohol consumption?
- To what extent is there a systematic difference between men and women in how position roles are related to consumption?

### Methods

Two dataset are used. One is a set of surveys from European countries in which alcohol consumption (level of consumption and drinking 6 or more glasses per occasions) and the explanatory variables are measured

in a comparable way. The other dataset is a large Swiss study among the adult population; this study will be used to analyze the extent to which the relation between social roles and consumption is mediated or moderated by psychological variables.

### Results

A cross-national study in 10 (industrialized) European countries shows that in all countries multiple roles tend to protect against excessive consumption. However, in some countries the additional role of employment over having a partner and/or care for children did not correlate with a lower consumption. The other analyses are still in progress.

### Researchers

S Kuntsche (PhD student, SIPA), prof dr RA Knibbe (promotor)

**In collaboration with** SIPA, Swiss Institute for the Prevention of Alcohol and Drug Problems

**Term** 2005 - 2009

**Financing** SIPA, Swiss Foundation of Alcohol Research

## 16 Genes, family environment, and gene-family environment interactions as predictors of adolescent alcohol use

### Aim and research questions

We will examine how family-environmental factors interact with candidate genes in predicting alcohol use in early, middle, and late adolescence. The main starting point is that adolescents who possess a certain genetic liability (because of genetic mutations: polymorphisms) and who experience specific environmental conditions, may be at a greater risk to use alcohol, or develop alcohol-related problems, than adolescents who do not have this genetic vulnerability or the environmental stressors.

Research questions are:

- Which genes interact with environmental factors in relation to alcohol use in adolescents? And which environmental factors exert the largest influence in determining alcohol consumption while interacting with specific genetic polymorphisms?
- Do genotype and parenting (e.g., rules, control) interact in predicting alcohol-related behavior?
- Is there a specific role for alcohol-specific parenting practices in the relation between genes and alcohol use?
- To what extent are polymorphisms in selected genes related to different stages of alcohol use?

This project is innovative because both environmental and genetic factors will be included. In addition, it provides the opportunity to examine predictors of specific trajectories of alcohol use in adolescents on the short and long term.

**Methods**

Research questions will be answered by means of a longitudinal study with 6 annual waves.

At wave 1 a total of 428 families, consisting of two parents and two adolescent children (aged 13 and 15 at wave 1) were participating. Five assessments have already been conducted, and saliva samples from all family members were collected at wave 4. At each wave, all family members individually filled in an extensive battery of instruments on child and parenting behaviour.

**Results**

The first study of this project demonstrated that shared environmental factors (parental rule-setting and control, and modeling effects) influence the development of alcohol use in young adolescents. When adolescents grow older and move out of the initiation phase, their drinking behaviour may be more influenced by other factors, such as genetic susceptibility and peer drinking (Van der Zwaluw et al., 2008).

The second study of this project comprised a descriptive review of the relation between the m-opioid receptor gene (OPRM1) and alcohol dependence. Little evidence was found for a direct association between polymorphisms in OPRM1 and alcohol dependence. Explanations for the lack of positive findings were discussed (Van der Zwaluw et al., 2007).

The third study showed that adolescents and their intimate partners were relatively similar in alcohol use. This resemblance was best explained by adolescents' selection of future partner on the basis of alcohol consumption. Less indication was found for influence effects, perhaps due to the transient nature of most adolescent romantic relationships (Van der Zwaluw et al. submitted).

The fourth study is a review paper of empirical studies that test gene-environment interactions on alcohol use and dependence. Despite the fact that the importance of this type of research is well acknowledged, we identified only nine empirical studies. In these studies the interactions between a plethora of candidate genes and several environmental factors were associated with alcohol use or dependence. Limitations and directions for future research were discussed (Van der Zwaluw & Engels, submitted).

The fifth study tested for interaction effects between the dopamine D2 taq1 genotype and parental rule-setting on the initiation of alcohol consumption. We selected adolescents who did not drink at Time 1 or Time 2 and examined whether they consumed alcohol one year later.

Indeed adolescents with the DRD2 A1 allele, whose parents were highly permissive towards alcohol use, consumed significantly more alcohol one year later than did adolescents without these characteristics (Van der Zwaluw et al., in preparation).

**Researchers**

drs CS van der Zwaluw (PhD student), dr RHJ Scholte (advisor), prof dr RCME Engels (promotor), prof dr JK Buitelaar (copromotor, Radboud University Nijmegen Medical Centre), dr RJ Verkes (copromotor, Radboud University Nijmegen Medical Centre)

**In collaboration with** Radboud University Nijmegen Medical Centre

**Term** April 2006 - March 2011

**Financing** Netherlands Organization for Scientific Research (NWO)

**17 Measuring problem drinking****Development of a short instrument to measure problem drinking in the general population****Aim and research questions**

Fighting and preventing problem drinking (physical, psychological and social problems related to the excessive use of alcohol) is a major goal of local, national and international governments. To evaluate policy aimed at reducing alcohol-related problems it is necessary to monitor alcohol-related problems in the general population. However, problem drinking is a construct related to a broad variety of alcohol-related problems; therefore, instruments to assess problem drinking are extensive which hinders their incorporation in regular health monitor studies. Aim of the project is to develop a short and easy to administer instrument to measure problem drinking in the general population.

**Methods**

A sample of the Dutch adult population of about 7,500 persons aged 16-70 years was approached in 2003 for a study on the prevalence of problem drinking (Van Dijck & Knibbe, 2005).

The data of this study were used for the current project. By means of explorative factor analyses and reliability analysis a short and easy to administer instrument is developed that corresponds highly with the original instrument to assess problem drinking.

**Results**

Factor analyses revealed 3 factors in the original questionnaire containing 37 items:

- Signs of excessive (binge) drinking; e.g. the occurrence of alcohol intoxication (6 items)
- Drinking as a coping mechanism; e.g. using alcohol for mood modification (5 items)
- Negative psychosocial consequences of drinking; e.g. relatives or close friends complaining about alcohol use (5 items).

Using regression analyses, these three scales were shortened and combined into the final abridged scale problem drinking containing 9 items. The differences in measurement qualities between the original and abridged scale appeared to be small.

**Researchers**

dr GJ Meerkerk (researcher), drs M Derickx (research assistant), dr F Tan (researcher, Maastricht University), prof dr RA Knibbe (project leader)

**In collaboration with** Maastricht University

**Term** December 2006 - March 2007

**Financing** Ministry of Health, Welfare & Sport

## 18 Alcohol use among adolescents: results second measurement

### Aim and research questions

In the fall of 2004, a large-scale study was conducted on the buying and consumption of alcohol among Dutch adolescents aged 12-17 years.

To understand recent developments and trends in alcohol consumption among adolescents the Netherlands Institute for Health Promotion and Disease Prevention (NIGZ) asked IVO to conduct a second measure in 2006. This second measure has taken place among adolescents and their parents. The present study will generate more insight into the degree of buying and consuming different types of alcohol among different age categories and into demographic, social and personal factors related to buying and consuming alcohol.

### Methods

The same schools that participated in 2004 were approached to participate in the second study. For 3 schools that refused to participate for a second time, new comparable schools have been recruited. A total of 3 schools for secondary education and 2 schools for vocational training participated in this second measure.

Data were collected by means of questionnaires filled in by 5334 students (aged 12-17 years) and 3308 parents of these students. To increase the response among parents the possibility to fill out the questionnaire online was created. Recent experience has shown that this 'multimethod approach' yields a higher response rate. Through statistical weighting procedures, the data of the students are comparable to Dutch adolescents in this age group.

### Results

The results show that the quality of conversations about alcohol use is more important than the frequency of such conversations. Qualitatively good conversations on alcohol use, particularly between the mother and the child, seem to prevent adolescents from (excessive) weekly alcohol use. The frequency of such communication does not moderate this relationship. In addition, parental rules regarding alcohol use seem to prevent adolescents from (excessive) weekly alcohol use and alcohol-related problems. The availability of alcohol drinks in the house, however, seems to increase the risk of (excessive) weekly alcohol use and alcohol-related problems among adolescents. These results may be of practical importance for the development of preventive interventions aiming at the parents' alcohol-specific parenting practices.

### Researchers

drs R Vet (researcher), dr RJJM van den Eijnden (project leader)

**In collaboration with** Netherlands Institute for Health and Disease Prevention (NIGZ)

**Term** September 2006 - April 2007

**Financing** NIGZ

## 19 What do you drink?

### A qualitative study of usability and tailoring (www.watdrinkkijj.nl)

### Aim and research questions

In the framework of the alcohol campaign for adolescents, NIGZ is developing a computer-tailored intervention (the website [www.whatdoyoudrink.nl](http://www.whatdoyoudrink.nl)) aimed at reducing alcohol consumption of excessively drinking adolescents. In the website, adolescents fill in several questions regarding their alcohol consumption and receive personalised feedback. Based on international literature, it is expected that this computer-tailored intervention will have more effect on determinants of alcohol consumption and (a reduction in) alcohol intake, compared to general information that is not personalized. This study has two main aims: 1) to gain insight into improvements regarding the usability of the intervention, and 2) to gain insight into possible differentiations of the intervention aimed at specific subgroups.

### Methods

The study is conducted using a qualitative research design in order to provide answers to both research questions. The first research question is studied by observing 45 adolescents, who individually visit the website [www.watdrinkkijj.nl](http://www.watdrinkkijj.nl) and complete the test under supervision of the researcher. Afterwards, adolescents answer a few questions regarding the usability of the website. The second research question is studied by conducting four focus groups with a total of 20 adolescents from the observational study. Participants engage in a discussion regarding possibilities to differentiate the website among specific subgroups of adolescents.

### Results

Data from the observational study and from the focus groups show a number of positive and negative factors regarding the usability and degree of tailoring of the website [www.watdrinkkijj.nl](http://www.watdrinkkijj.nl). These results are summarized in ten recommendations which are used to optimize the website to the target group.

### Researchers

drs A Risselada (researcher), dr BJJ Boon (project leader)

**Term** April 2007 - August 2007

**Financing** Netherlands Institute for Health Promotion and Disease Prevention (NIGZ)

## 20 Development of automatic and controlled processes with regard to substance use in adolescence

### Aim and research questions

This study tests a recent model on the development of addictive behaviors in adolescence. The central hypothesis is that these problem behaviors are the result of a disturbance in the balance between two classes of neurocognitive processes with regard to alcohol and drug use. The first class of processes are appetitive responses to drug cues, including attentional bias, automatic arousal associations and automatic approach action tendencies. These appetitive processes get stronger as a result of alcohol and drug use through sensitization. The second class of processes are executive control processes, including working memory, inhibitory control and error monitoring. The development of these processes is negatively affected by alcohol and drug use during adolescence. Furthermore, brain regions associated with these processes are not fully developed in adolescence. Some scattered research findings have provided preliminary support for the model, but an integrated, longitudinal project investigating the development of these processes is lacking.

### Methods

Approximately 500 adolescents participate in this longitudinal study (4 waves, 6 months interval). Subjects perform computer tasks which assess both appetitive and control processes. Examples are, for instance, the dot probe (attentional bias) and the self-ordered pointing task (working memory). Furthermore, subjects fill in questionnaires regarding, for example, attitudes towards alcohol and alcohol expectancies.

### Results

In preparation: results from the first wave are due summer 2008.

### Researchers

drs S Pieters (PhD student), dr H van der Vorst (advisor), prof dr RCME Engels (promotor), prof dr RW Wiers (promotor)

Term February 2007 - February 2012

Financing Radboud University Nijmegen

## Hard drugs, cannabis and new drugs

### 21 Cannabis branch speaking Backgrounds and motivations of (ex-) exploitants in grass cultivation and developments in the Dutch cannabis branch

#### Aim and research questions

This study will investigate the backgrounds and characteristics of (ex-)exploitants in grass cultivation. An important issue will be to what extent the deviant character plays a role in the motivation of (not) being active in this branch. Moreover, developments in the Dutch cannabis branch since the 1990s will be mapped.

#### Methods

After a review of literature and establishment of a theory, three types of qualitative data will be collected: semi-structured interviews with experts (insiders in the branch and others who are related to the cannabis branch), face-to-face in-depth interviews with (ex-)exploitants in local grass cultivation and a number of expert meetings with policy officers who are acquainted with the branch and its insiders.

#### Results

Will be reported in a thesis when available (2008).

#### Researchers

drs NJM Maalsté (researcher/ PhD student), prof dr E Lissenberg (promotor, University of Amsterdam), prof dr H van Mheen (promotor)

In collaboration with University of Amsterdam

Term January 2003 - August 2008

Financing IVO

### 22 Measurement of program characteristics of intensive community-based care for persons with complex addiction problems

#### Aim and research questions

Intensive community-based care was developed in the mid-1960s and many types of intensive community-based programs have been implemented internationally. Several meta-analyses have demonstrated that, up till now, there is a shortage of conclusive evidence regarding the effectiveness of the programs. In particular, it is still unknown what components of the programs contribute to client outcomes. To address this problem we need to more clearly specify the components of the programs, and study the relation with client outcomes. The need for reliable measurement instruments has been reported. The challenge is to develop measures that are comprehensive and generalizable across the various types of programs.

The aim of this research was to develop, apply, and assess the quality of a generic measurement instrument for the program components of intensive community-based care.

#### Methods

- A literature research was made and open interviews with experts were conducted to describe why and how intensive community-based care has been developed internationally. Furthermore, the number of programs in the Netherlands was measured using literature, national databases, and a snowball method. A first impression of the nature of the programs was obtained using a postal questionnaire.
- Theory is built and concepts were made operational, using concept mapping, semi-structured interviews, and literature. This resulted in a classification system (i.e. taxonomy) of program components.
- A measurement instrument (a questionnaire) was built based on the taxonomy and used in a Dutch census study. The quality of the instrument was assessed with factor analysis and Cronbach's  $\alpha$ . Furthermore, the components of the Dutch programs were described.

#### Results

The literature showed that intensive community-based care has originally been developed as an alternative for the psychiatric hospital. It aims at persons that are 'hard to reach' and consists of an active and persuasive approach with an emphasis on practical support, provided in the natural environment of the client. In the Netherlands it is estimated the target population includes about 110,000 people, of which 80% are homeless, 40% has substance misuse problems and 32% has mental health problems - with over a third showing a combination of these problems. Most of them are male (77%) and aged between 26 and 40 years. In the inventory, we found 277 unique programs, of which 217 responded to our postal questionnaire. Of the responding programs, 77% fulfilled the criteria for being a 'genuine' intensive community-based care program. The taxonomy included four dimensions of program components that are considered to be relevant for good intensive community-based care: organization, professionals, process, and objectives. All dimensions are divided in sub-dimensions, scales and statements. The results showed that intensive community-based programs were, on average, eight years old (started by the end of 1998). Of all intensive community-based programs, 97.2% were a collaboration of several organizations. The most frequently involved organizations were mental healthcare (95.8%) and addiction care (90.3%), followed by the police (80.6%) and housing corporations (77.8%). In 87.5% of the programs both mental healthcare and addiction care were involved; 95.7% of the programs aimed at providing services on both domains. The size of the caseloads varied greatly between programs. On average, the caseload consisted of 142 clients. Of the a priori scales, 70% was internally consistent. With factor analysis the number of scales was considerably reduced (73%), but still explaining 58% of the total variance. The factor explaining the most of the variance (12.07%) was clinical effects and an increase in meaningful daily activities. The present findings are promising. Using the ICPC, programs across countries can be described on the same dimensions, and compared more easily than previously. Although not all scales were internally consistent, many were. In future effect studies, the ICPC Questionnaire can help to improve research designs and determine the contribution of program components to client outcomes. The study was completed with a PhD thesis in October 2007. Seven articles (international and national) have been published/accepted, and two articles are submitted.

#### Researchers

dr DPK Roeg (PhD student), dr LAM van de Goor (researcher), prof dr HFL Garretsen (promotor)

In collaboration with Tilburg University

Term October 2002 - October 2007

Financing Tilburg University

## 23 Reach of a hepatitis B vaccination campaign among high-risk groups

#### Aim and research questions

To gain insight into the extent to which risk groups of hepatitis B are reached by the national hepatitis B vaccination campaign. In addition, factors related to non-participation and non-compliance will be studied. These findings will be used to enhance participation and compliance of the vaccination campaign.

#### Methods

Semi-structured interviews among about 300 members per risk group: drug users (DUs), commercial sex workers (CSWs), and men who have sex with men (MSM). These interviews took place in three regions per risk group: Rotterdam, Utrecht and South Limburg. First an ethnographic map was made to identify high-risk groups in the region. Then members of risk groups were interviewed at particular 'gathering spots' of these risk groups, e.g. sex clubs, prostitution zones, methadone stands and gay bars.

#### Results

Results showed that 63% of the DUs, 79% of CSWs, and 74% of the MSM were aware they could opt for free hepatitis B vaccination. Homeless DUs and those who had visited drug consumption rooms were more frequently familiar with the campaign than those with a stable housing situation. Among CSWs the duration of working in the sex industry was positively associated with the familiarity with the campaign. Among MSM those who were bisexual were less frequently familiar with the campaign. A total of 44% of DUs, 63% of CSWs, and 50% of the MSM obtained vaccination. Analyses showed that among all three groups outreach activities were positively associated with vaccination uptake. Among MSM their sexual risk behavior with casual partners played a more important role in their decision to obtain a vaccination. The most important reasons for non-participation were: the lack of self-efficacy among DUs, inconvenience and lack of time for CSWs, and not perceiving any risk for infection with the hepatitis B virus among MSM. Among those susceptible to the hepatitis B virus (those who reported no hepatitis B vaccination nor infection with the hepatitis B virus), attitude towards hepatitis B vaccination is the most important predictor of intention to obtain vaccination among the three risk groups, next to health benefits among CSWs and perceived susceptibility among MSM. Age was positively associated with intention among DUs, and negatively associated with intention among CSWs.

**Researchers**

drs JE Baars (PhD student), dr BJF Boon (copromotor), prof dr H van de Mheen (promotor), prof dr HFL Garretsen (promotor)

**Term** July 2003 - April 2008

**Financing** Netherlands Organisation for Health Research and Development (ZonMw), Netherlands Society of Municipal Health Authorities (GGD-NL)

## 24 Dutch cocaine trade: impressions of participants in drug distribution chains

**Aim and research questions**

This project aims to give an overview of cocaine distribution chains in the Netherlands as perceived by the participants. The research questions are:

Which structures and methods of working characterize the distribution chains of the cocaine trade in the Netherlands, as perceived by the actors on different levels of the trade? Which background factors explain the participation of these persons in the cocaine trade?

**Methods**

Between spring 2002 and autumn 2004, 37 Rotterdam cocaine retail dealers and 24 detained participants involved in the cocaine middle market and import trade were interviewed. In total 75 in-depth interviews were conducted addressing the nature of the cocaine trade between about the mid-1990s to 2004.

**Results**

The interviews demonstrate that the structure and methods of working within the cocaine distribution chain in the Netherlands are heavily connected to the way cocaine is imported into the Netherlands. Therefore, a distinction has been made between large-scale cocaine import (mainly via the port and in some cases via road transport) and small-scale import mainly via Amsterdam's Schiphol Airport.

Large-scale cocaine import and the middle market that evolves from this import appear to be the domain of people active in several other areas of illegal trade and criminal acts.

Success in large-scale cocaine sea transports requires a good knowledge of the expedition sector and this appeared to be sufficiently present among some of the interviewed. Large-scale cocaine transports (also coming to the Netherlands by road) were seldom destined for the Dutch local market but were often transported further to other countries in Europe.

In contrast with the large-scale import of cocaine (where the final destination is mostly some other European country) the Dutch local market for cocaine is almost completely supplied by small-scale imports into Schiphol Airport. However, airport seizure and cocaine consumption data indicate that part of these small-scale cocaine imports is also destined for transit trade.

On the cocaine retail level participants often deal in both cocaine and heroin. This is, however, especially characteristic of respondents involved in the retailing of base cocaine. Powder cocaine retailers seldom sell heroin because of the poor demand among their customers. For this same reason, drugs other than cocaine and heroin are rarely sold by these respondents.

Regarding involvement in the cocaine business, about 75% of the retail dealers are addicts themselves, and about 25% was addicted until recently.

Respondents' own addictions play an important role in determining their positions in the cocaine distribution chain.

In most cases, their own hard drug use was the primary motive to start dealing drugs themselves.

However, because of their own drug use their financial circumstances are often very precarious.

On the other hand, participants at the middle and import level of the cocaine trade are seldom motivated by their own addictions.

Potential financial rewards are a universal motive for involvement in the cocaine trade. However, for those acting on the higher levels of the cocaine distribution chain, trading itself seems more important than the goods they trade in. This probably explains why many cocaine dealers have been involved in a wide range of other illegal trade practices during their life. The trade that offers the most favourable financial perspectives and the best personal contacts at any given moment is the one chosen to be taken up.

**Researchers**

drs PMG Gruter (researcher IVO till 4/2005/ PhD student), prof dr H van de Mheen (project leader, promotor), prof dr H van de Bunt (promotor, Erasmus University Rotterdam)

**In collaboration with** Erasmus University Rotterdam

**Term** September 2001 - December 2008

**Financing** Research and Documentation Centre of the Ministry of Justice (WODC), Erasmus University Rotterdam

## 25 Prevention in the coffeeshop

Establish (local) networks involved in coffeeshop policy, and collaborate with the cannabis branch to develop national information materials and a national course for employees in coffeeshops

**Aim**

The project **Cannabis prevention** is awarded by the Ministry of Health Welfare and Sports to the Trimbos Institute, which asked the IVO to carry out this project because of their expertise in the field. The project focuses on preventing problems caused by cannabis use. To realize this it needs to be established that:

- (Problematic) users of cannabis have sufficient knowledge about the risks of cannabis use;
- Mediators, such as coffeeshop staff, who work with young adults that visit the coffeeshops who use cannabis should have sufficient knowledge about the risks of cannabis use;

- Exchange of information takes place between policymakers, social workers and the cannabis branch regarding bottle-necks, policy measures and prevention activities;
- The cannabis branch is actively involved in the developments of prevention activities intended for cannabis users;
- The cannabis branch is well informed about (developments in) national and local policy and observe the regulations.

It is important that all relevant parties work together and support the resulting activities.

#### Methods

The contribution of IVO mainly consists of providing a liaison function between all relevant parties, establishing (in)formal dialogues between the different parties, supporting the cannabis branch in self-organisation, starting up local networks, and the development of related products (such as a brochure, an information leaflet and a national course).

#### Results

In 2007 the brochure and information leaflet became available in the coffeeshops. At the end of 2007 the pilot version of the developed national course was tested in 3 municipalities. In 2008 a course called "Good hosting by coffeeshop staff" (**Goed gastheerschap coffeeshoppersoneel**) will be implemented. An important part of the knowledge coffeeshop personnel use when dealing with problems in the coffeeshop comes from life experience, but professional training and knowledge is essential. How to act in a panic situation, for instance, when someone faints; how to handle under-aged persons who want to buy a joint; what to do with suspicions of dealing in hard drugs in the coffeeshop, and how to deal with trouble due to double parking, are examples of situations discussed during the course.

#### Researchers

drs A Vogelzang (researcher), dr LEAM Oliemeulen (researcher), mr drs V Everhardt (project leader, Trimbos Institute)

Under the authority of Trimbos Institute

Term January 2005 - December 2007

Financing Ministry of Health, Welfare and Sports

## 26 Situation of the social and health services of general interest in the European Union: services for the integration of drug-addicted persons

#### Aim and research questions

The project will map the state-of-the-art of these services in general and particularly with respect to modernization issues, issues related to debates regarding the application of Community law and policy, and the development of quality initiatives in the European Union. These issues will be further demonstrated and analyzed on the basis of developments in different sectors in different EU member states,

including the social services for drug-addicted persons. The main task of the IVO is to contribute to an in-depth study on the services for the integration of drug-addicted persons in Rotterdam as a sectoral demonstration of developments in social and health services of general interest in the European Union. Six cities will be compared: Rotterdam, Frankfurt, London, Vienna, Stockholm and Warsaw.

#### Methods

Literature study and registration data in addiction care.

#### Results

Available in summer 2008.

#### Researcher

prof dr H van de Mheen (researcher, project leader)

In collaboration with The European Centre for Social Welfare Policy and Research, Vienna, Austria

Term November 2006 - summer 2008

Financing European Union

## 27 Problematic alcohol and drug users and gamblers in the prison system

#### Aim and research questions

This study aims to examine the following research questions:

- What is the prevalence of problematic alcohol and drug use and problematic gambling among Dutch detainees?
- What is the nature and severity of alcohol and drug use and problematic gambling among these detainees?
- What are the features of detainees with alcohol and drug abuse and problematic gambling? What kinds of criminal offences were committed? What is their lifestyle? Are we able to create ideal types?
- How many of the problematic users and gamblers have a need for care? How can their specific needs for care be described? Are we able to create ideal types for needs of care and features of problematic use?

#### Methods

This study employs four research methods:

- Systematic literature review
- Analyses of registration files
- Research among detainees in detention centres
- Short oral screening
- Extensive oral interview
- Assessment by professionals.



## Results

The literature shows a large range in prevalence data. In regular detention centers, the prevalence of problematic alcohol use ranges from 23-33%, and the prevalence of problematic drug use ranges from 30-44% (use of hard drugs and/or cannabis). Little is known about problematic gambling, but studies among particular groups of prisoners suggest that these prevalence rates range from 2-11%.

The results of the screening implicate that about 60% of the prisoners experience problems with alcohol use, drug use or gambling.

Data on the prevalence of particular substances coincide with the data from the literature. Problematic alcohol use was detected among 30% of the prisoners, and problematic drug use (which was defined as problematic use of hard drugs and/or a high risk of problematic cannabis use) among 38% of the prisoners. Problematic use of hard drugs (excluding cannabis) was detected among 24% of the prisoners, with a relatively high prevalence of problematic use of cocaine (19%), sedatives (15%) and opiates (12%). Problematic gambling was found among 6% of the prisoners.

The majority of the problematic substance users and gamblers showed signs of psychological and physical problems. Among 3 out of 4 problematic substance users and gamblers, an indication was found for the existence of a personality disorder, among more than half an indication for the (possible or probable) existence of an anxiety disorder, and among 1 out of 3 an indication for the (possible or probable) existence of a depression. Moreover, 40% of the problematic substance users and gamblers showed signs of psychotic symptoms. It should be noted, however, that the reliability of these data is somewhat unclear, because screening instruments were used which do not provide diagnostic information, and because most instruments were not validated in a sample of prisoners. About 40% of the problematic substance users and gamblers has physical health problems.

During the two-day expert meeting, 8 categories of needs for help were distinguished for problematic substance using and gambling prisoners. The most important needs for help mentioned by problematic alcohol users, drug users and gamblers did not correspond to those mentioned by the experts.

## Researchers

drs EAP Oliemeulen (researcher), dr RJJM van den Eijnden (project leader), dr P Vuijk (researcher), dr B Rovers (researcher, BIVO)

**In collaboration with** Bureau of Applied Safety Research (BTVO)

Netherlands Institute for Care and Welfare (NIZW, dr L Boendermaker)

**Term** July 2006 - May 2007

**Financing** Research and Documentation Centre of the Ministry of Justice (WODC)

## 28 National prevalence study on substance use among the Dutch general population

### Aim and research questions

The national prevalence study on drug use is conducted every four years among a representative sample of the Dutch general population. The present study is the third national prevalence study. The two earlier studies were executed by the CEDRO in 1997 and 2001 (Abraham, Kaal & Cohen, 2002). In both studies data were gathered by means of the CAPI-method (Computer Assisted Personal Interviewing). An important disadvantage of this method, however, is its relatively high financial and time-related costs. An important objective of the national prevalence study 2005 was therefore to gain more insight into the utility of an alternative method, i.e. data collection among members of an online access panel. An online access panel consists of volunteers who are willing to participate in 'online research' by filling out online questionnaires. This type of methodology is much quicker and more cost-effective than the method of personal interviewing. Nevertheless, since online access panels concern a self-selected group of people, this method may produce large selection effects. Besides, generating more information on the utility of the online access panel method, the study of 2005 is aimed at answering the following research questions:

- What are the incidence and prevalence rates of the use of drugs, alcohol, tobacco and performance enhancing substances among the Dutch general population (15-64 years)?
- What are the incidence and prevalence rates of the use of drugs, alcohol, tobacco and performance enhancing substances among the Dutch general population (15-64 years) differentiated according to gender and age groups?
- What are trends in substance use since the first measurement in 1997?
- What is the prevalence of cannabis dependence?

### Methods

For the collection of the data, we collaborated with Statistics Netherlands (CBS), who gathered data among an a-select sample of the Dutch households using the CAPI-method (n = 4,516). SSI collected data among their members of an online access panel, using an online questionnaire sent by e-mail (n = 20,282). Data have been weighted according to current figures on national population characteristics.

### Results

The CAPI and online method of data collection have been compared on sampling frame, differences in response, differences between respondents and non-respondents, and differences in demographic characteristics and substance use of the respondents. This comparison showed among others selective non-response in both methods. However, the selective non-response of the online access panel method seems to be larger than that of the CAPI method. This impression is confirmed by the finding that CAPI respondents differ considerably in demographic characteristics compared to online access panel respondents, whereas the demographic characteristics of the CAPI respondents resemble those of the national population more. As the CAPI study is based on a random sample of the Dutch population and had a high response rate (62.7%), it is concluded that the CAPI sample is more representative than the sample of the online access panel. Because of that the prevalence rates of substance use for 2005 are based on the CAPI data only.



For a total overview of the incidence and prevalence rates of the various substances we refer to the research report (Rodenburg et al, 2007). Here we limit ourselves to the main conclusions, centred on the third research question: What are trends in substance use since the first measurement in 1997. The results show a stabilisation in cannabis use. Since 1997 the last year prevalence rate is about 5.5% and the last month prevalence rate somewhat above 3%. The number of new cannabis users (incidence) is stable at about 1.5%. As for cannabis the last year and last month prevalence rate of hard drugs (XTC, cocaine, amphetamine, LSD and/or heroin) remained stable between 1997 and 2005. The last year prevalence is 1.5% and the last month prevalence 0.5%.

The use of tobacco is on its return. The number of daily smokers and the number of heavy smokers (smokers using 20 or more cigarettes a day) decreased significantly. Compared to 1997 the number of daily smokers dropped with a quarter: from 35.1 to 26.9%. The decrease took place among men and women, in all age groups and in rural and urban areas. The percentage of heavy smokers fell from 10.7 to 8.7%. This drop especially took place among people in the age group 25 to 44 and in areas with a moderate address density.

In general alcohol use in the Netherlands is fairly stable. The last year prevalence of alcohol decreased between 1997 and 2005 from 86.7 to 85.4%; a relative decrease of about 1%. The last month prevalence rate remained stable on 78%. However, binge drinking (drinking of at least once 6 or more glasses of alcoholic beverages on one day in the past six months) declined significantly between 1997 and 2005: from 38.6 to 34.5%. The decline took place among men and women, among the age groups 15-24 and 25-44 and in areas with a (very) high or moderate address density.

Performance enhancing drugs show a rise in last year use between 2001 and 2005, especially among men. In 2005 0.5% of the Dutch population used performance enhancing drugs in the last year.

Between 1997 and 2005 we see a drop in last year and last month use of hypnotics and/or sedatives. The last year prevalence rate fell from 11.9 to 9.3% and the last month prevalence rate from 6.6 to 5.0%. Elder people (aged 45-64) are in large responsible for the decline.

Results concerning the fourth research question - prevalence of cannabis dependence - will be presented in a article for a scientific journal.

#### Researchers

drs G Rodenburg (researcher), dr R Spijkerman (researcher), dr RJJM Van den Eijnden (project leader), prof dr H Van de Mheen (project leader), prof dr RA Knibbe (advisor), dr LAM van de Goor (advisor), prof dr HFL Garretsen (advisor)

**In collaboration with** Statistics Netherlands (CBS) and Survey Sampling International (SSI)

**Term** February 2005 - December 2006

**Financing** Ministry of Health, Welfare and Sports

## 29 "Together we stand strong" Professional support of next of kin of addicts

### Aim and research questions

Regarding the care for chronically ill people, there is increasing awareness of the burden on and need for specific support of their partners, parents, adult children and/or siblings. It is assumed that the next of kin of addicts (or problematic alcohol/drug users) are also in need of specific support. However, generally there is only volunteer aid for next of kin of addicts, and their needs for support. Therefore, the research questions were: 1) What is the policy and vision of addiction care providers regarding the support of next of kin of addicts? 2) What is the actual offer of support by these providers? 3) How do providers and next of kin evaluate these different kinds of support? and 4) What is the support need of next of kin and to what extent is this need met by the actual offer? Support of volunteer aid is defined as facilities and services that increase the supporting power and decrease the burden of the next of kin involved.

### Methods

We analysed the policy/vision and the actual offer of professional support in five addiction care providers, by interviewing policymakers and social workers, and by analysing websites and other published material. Within each organization we then chose one specific type of support that was further analysed: a) a 3-day program, b) continuous parent/partner work, c) next of kin group in a series of 5 meetings, d) parent/partner group in a series of 10 meetings, and e) continuous open group with addicted females and next of kin of addicts. Researchers made observations during programs and group meetings, and interviewed 33 participating next of kin. Most of them were interviewed twice (before and after). Also interviewed were representatives of organizations assisting the next of kin of addicts, and promoting self-help .

### Results

It is important that the specific problems experienced by next of kin are examined and taken seriously, separate from those of the addicted client. All addiction care providers agree that next of kin need to participate in the treatment of the addicted client in order to maintain improvements and/or recovery of the addict. However, many addiction care providers have no written policy regarding the support of next of kin that focuses specifically on the next of kin (rather than on the addict). Some providers are currently considering the possibilities, but the subject has a low priority. It seems difficult to decide where to draw the line of what is and what is not within the task of the addiction care providers. Two providers have developed a specific offer aimed at the support of next of kin. In general, in the offer to the next of kin, no distinction is made in the type of addiction or the primary relationship between the 'volunteer' and addict. Major problem in this field is that next of kin are usually not (yet) aware of the fact that they themselves need help and support. When they approach addiction care providers they ask for help for the addict, not for themselves. This is true even when next of kin is participating in e.g. a support group.

During the study collaboration was established with the "Stichting Coke Van Jou" (SCVJ), a foundation that supports partners, family and friends of addicts in different ways (e.g. organising open days and selfhelp groups, family counseling, online support). This present study and an online study into the needs

of next of kin are the input for the development of a support offer. SCVJ is leading in the development (2007/2008, financed by the province of Noord Holland) and IVO will be involved in the evaluation of the support offer in practice (2008/2009).

#### Researchers

drs MTM Stoele (researcher), drs E van Vliet (researcher), drs A van der Poel (project leader)

**Term** May 2006 - May 2007

**Financing** Addiction care providers: BoumanGGZ, Castle Craig, De Hoop, Iriszorg, Novadic-Kentron  
Addiction Care

**Funds** VSB Fund, Fund Mental Health, Foundation for Christian Care for Mentally II Persons (VCGVZ)

### 30 Living-Care-Work (WZW-project)

#### Aim and research questions

Living-Care-Work is a facility that primarily offers long-term accommodation, but in which work and care is also offered. The Living-Care-Work facility is intended for addicted drugs users who also have psychiatric problems. Main purpose of this facility is to improve the quality of life.

The Municipal Health Authority Rotterdam-Rijnmond asked IVO to evaluate the process and the effect of the Living-Care-Work facility.

The research questions are:

- Process evaluation: Which circumstances motivate the residents of the Living-Care-Work to stay in this facility and which ones interfere with their stay?
- Effectivity evaluation: Is the Living-Care-Work facility effective?

#### Methods

Semi-structured interviews among 8 professionals and 37 residents. Both professionals and residents will be interviewed for a second time 6 months later.

#### Results

Results are expected in 2008.

#### Researchers

drs E van Vliet (researcher), drs SM Ganpat (researcher), drs A van der Poel (project leader)

**Term** February 2007 - May 2008

**Financing** Municipal Health Authority Rotterdam-Rijnmond

### 31 Evaluation of the implementation of 'Lifestyle training for addictive delinquents'

#### Aim and research questions

The Foundation for Addiction Rehabilitation wanted to establish whether lifestyle training can be implemented for inmates or delinquents who are on probation. Therefore a pilot study was conducted in Rotterdam and Amsterdam. The following step was to evaluate the pilot; this evaluation of the implementation process was done by IVO. The aim of this study is to describe how the pilot 'Lifestyle training for addictive delinquents' has been implemented, and to describe what problems emerged during this process.

#### Methods

A total of 11 interviews were held with professionals, and 4 interviews with delinquents who had followed this training. Subsequently, we organized a focus group with several professionals in which the most import conclusions were presented and discussed.

#### Results

According to the professionals and participants, overall the pilot was successfully implemented. The success of the pilot can be attributed to the intensive cooperation with the professionals involved, and because the trainers had built up a confidential relationship with the participant. The manual that was written for the training also contributed to the success because it contained clear, useful and extensive instructions on how the training had to be given.

Nevertheless, there were some complications during the pilot. In the beginning there were insufficient participants who were on probation; this delayed the start of the program. In the prison it was sometimes difficult to start on time because the prisoners had to come from different locations; because of this there was insufficient time to finish all the sections of the training, and eventually the trainers had to shorten the program. It was also difficult to keep the participants who remained on probation in the training program: some of these delinquents failed to show up and consequently did not finish the entire program. Despite the problems that emerged, the professionals and participants considered the pilot to be a success.

#### Researchers

drs SM Ganpat (researcher), dr RJJM van den Eijnden (project leader)

**Term** December 2007 - April 2008

**Financing** Foundation for Addiction Rehabilitation (SVG)

# Smoking

## 32 Predictors of smoking cessation among adolescents: The role of psycho-physiological, psychosocial and habitual aspects

### Aim and research questions

Which factors predict the process of smoking cessation in adolescents, i.e. actual smoking cessation as well as earlier stages in the process.

### Methods

In four regions of the Netherlands, a total of 33 schools were selected by taking a random selection of schools. From each school all third and fourth year students of secondary education were selected. This amounts to about 10,000 students. The students in the selected classes filled out three questionnaires with an interval of one year (2004, 2005, 2006). The questionnaire consisted of questions about the use of cigarettes, nicotine dependence, risk perception, amount and duration of attempt(s) to quit, pros and cons of quitting, disengagement beliefs, parental upbringing with regard to smoking, temptation to smoke, anticipated emotions of successful quitting, and about processes that play a role in smoking cessation. Further along the project an experiment was carried out among 180 daily smoking adolescents. In a longitudinal design, daily smoking adolescents were instructed to remain abstinent for 24 hours, during which craving and withdrawal symptoms were measured. Additionally, both concepts were assessed during a period of non-restricted (ad libitum) smoking. Three important parameters of the process of smoking cessation were assessed, i.e. readiness to quit (assessed during abstinence and ad libitum smoking), quit attempts, and enduring abstinence (assessed four months later).

### Results

Within this project we started with a study among adult smokers. Results showed that excuses to continue smoking (disengagement beliefs) are negatively related to the engagement of smokers in the different processes thought to play a role within smoking cessation, i.e. the 'processes of change'. In addition, it appeared that in adult smokers disengagement beliefs are negatively associated with the readiness to quit and actual quitting.

The first study, based on the first of the three longitudinal measurements among adolescents, examined the best way to measure self-reported nicotine dependence. Results show that, in adolescents, self-reported nicotine dependence can best be assessed using a measure that includes multiple dimensions of dependence. Within this study we developed a measurement able to assess behavioral, psychological, and physiological aspects of nicotine dependence.

The second study, based on the first measurement, addressed the applicability of the Transtheoretical Model's processes of change in explaining adolescents' readiness to quit smoking. Furthermore, the association between nicotine dependence and readiness to quit was assessed both directly, as well as indirectly, through the processes of change. Structural equation modeling showed that the processes of change were only marginally associated with readiness to quit. Adding nicotine dependence to the model showed a

direct association between nicotine dependence and readiness to quit.

In a third study we examined the impact of the processes of change and nicotine dependence on actual smoking cessation, using a longitudinal design (measurements of 2004 and 2005). In this study, limited relations were found between the processes of change and both forward transition in motivation and actual smoking cessation one year later. Nicotine dependence contributed significantly to the explanation of adolescents' smoking cessation, after adjustment for processes of change. No evidence was found for a moderating effect of nicotine dependence in the relation between the processes of change and both forward transition in motivation and actual smoking cessation. Thus, processes of change do not seem significant in explaining adolescents' stage transitions. As an alternative for promoting the use of the processes of change for intervention purposes in adolescents, it might be more useful to focus on treating nicotine dependence.

The fourth study tested two models among 850 adolescent smokers, specifying the direct and indirect relations between adolescents' readiness to quit smoking, levels of nicotine dependence, and smoking behaviors of their parents and friends. One year later smoking cessation was assessed. Results showed that, among adolescent smokers, readiness to quit was particularly associated with quit attempts, while nicotine dependence was associated with successful quitting. Instead of a direct relation, parental and peers' smoking were negatively related to smoking cessation through nicotine dependence and readiness to quit. The findings emphasized that interventions should be developed and tested in both the in-school and out-school settings, as well as within the family situations. In addition, the strong impact of nicotine dependence on successful cessation demands more direct approaches to lower nicotine dependence in youths. The above-mentioned experiment among daily smoking adolescents formed the basis for a study on the roles of craving and withdrawal symptoms as determinants of adolescent smoking cessation. It was hypothesized that craving and withdrawal measured in vivo may be better indicators of bio-psychological dependence and, consequently, may be stronger predictors of smoking cessation practices. Results showed that during abstinence, craving was most strongly inversely associated with readiness to quit. During ad libitum smoking, only the withdrawal symptom of feeling irritable or angry was inversely associated with readiness to quit. Having trouble concentrating and feeling irritable or angry during ad libitum smoking were most predictive of making a quit attempt, while craving during abstinence was the strongest (negative) predictor of enduring abstinence at follow-up. Thus, the impact of craving and withdrawal symptoms vary across the different parameters of the process of smoking cessation, and to some extent across the two different measurement situations, indicating differential impacts of craving and withdrawal within the smoking cessation process. Craving assessed during abstinence appeared to be the best measure to predict enduring abstinence four months later.

### Researchers

drs M Kleinjan (PhD student), dr RJJM van den Eijnden (project leader, copromotor), prof dr RCME Engels (promotor), prof dr ir J Brug (promotor, Erasmus MC)

**In collaboration with** Erasmus MC

**Term** August 2004 - December 2008

**Financing** Erasmus MC, STIVORO

### 33 Predictors of smoking cessation among asthmatic adolescents: the role of asthma-specific, psychosocial, environmental and habitual aspects

#### Aim and research questions

To identify which factors predict the process of smoking cessation in asthmatic adolescents, i.e. actual smoking cessation as well as earlier stages of the smoking cessation process.

#### Methods

In four regions of the Netherlands, a total number of 29 schools were randomly selected. From each secondary school all third and fourth year students were selected, resulting in approximately 12,000 students. The students completed three questionnaires with intervals of one year each. The questionnaire inquires about the use of cigarettes, nicotine dependence, health risk perception, number and duration of attempts to quit smoking, pros and cons of quitting, parental upbringing with regard to smoking, temptation to smoke, anticipated emotions of successful quitting, and about Prochaska's processes of change related to smoking cessation. Distal psychosocial factors such as depression, self-esteem, and loneliness are inquired about as well. Asthma-specific factors include asthma symptoms, use of medication and compliance, coping skills, knowledge about asthma, quality of life, positive aspects of asthma, and asthmatic stereotypes.

In addition to the questionnaires, in a more advanced stage of the study, a diary study will be conducted among 30 asthmatic and 30 non-asthmatic students who have committed to quit smoking during one month, to measure the process of smoking cessation in more depth.

#### Results

The third study entitled "An Integration of Parental and Best Friends' Smoking, Cognitions, Nicotine Dependence, and Readiness to Quit Smoking: A Comparison between Adolescents with and without Asthma" was published in the *Journal of Pediatric Psychology*. The results indicate that adolescents with asthma felt more ready to quit, and cognitions were more strongly related to readiness to quit among adolescents with asthma than among adolescents without asthma. Moreover, best friends' smoking seemed more relevant to the cognitions of adolescents with asthma. Nicotine dependence and craving were strongly related to cognitions, and to readiness to quit in both groups. The relation between craving and readiness to quit, however, was stronger among participants with asthma. Conclusions are that reduction of nicotine dependence and craving is essential for both groups.

Youth with asthma may benefit even more from cognitive-based cessation services than healthy youth. The finding that adolescents with asthma are relatively more ready to quit, and that their cognitions are more easily affected can be turned into advantages in asthma-specific cessation services.

The fourth study "Parental factors in association with adolescent smoking relapse" examined the role of parents in smoking relapse among adolescents who embarked on a serious quit attempt. Participants were 135 daily smoking adolescents aged 15-20 years who participated in an Ecological Momentary Assessment (EMA) study. Daily questions about their quitting experiences were administered during four weeks. Longitudinal logistic regression analyses were applied to test whether parental smoking, expected parental

support, parental norms about cessation, and smoking cessation-specific parenting at baseline predicted the first and second lapse into smoking as well as mild and heavy relapse during the four-week period, and abstinence at follow-up two months later. Neither parental smoking nor hardly any of the parenting variables explained successful smoking cessation among adolescents, except for expected parental support. Low expected support predicted the first and second lapse, but not relapse. Despite that parents have been found influential in the development of adolescent smoking, our findings suggest that parents' influence is limited when it concerns actual smoking cessation and relapse. It might, however, be necessary to assess day-to-day variations in parental behavior during adolescents' quit attempts. This paper has been submitted to *Psychology & Health*.

The fifth study entitled "Testing Social Cognitive Theory as a Theoretical Framework to Predict Smoking Relapse among Daily Smoking Adolescents" has been submitted to *Addictive Behaviors*. Again, 135 adolescents who participated in an EMA study were used to study the effects of cognitions derived from Social Cognitive Theory in association with initial lapses, relapse, and current smoking at follow-up. Perceiving many pros of smoking, reporting a low self-efficacy to quit, and high levels of baseline smoking significantly predicted relapse within three weeks after quitting. The effects of pros of smoking and self-efficacy on relapse appeared to be indirect as they became insignificant when intensity of smoking was controlled for. Besides that pros of quitting showed a marginal effect on abstinence at the 2-month follow-up, no long-term effects were detected.

#### Researchers

drs RMP van Zundert (PhD student), dr RJJM van den Eijnden (copromotor), prof dr RCME Engels (promotor)

Term 2004 - 2009

Financing Radboud University Nijmegen, Netherlands Asthma Foundation

### 34 Asthma and Smoking: predictors of smoking behaviour among young asthmatic adolescents

#### Aim and research questions

To study smoking behaviour among young asthmatic adolescents and to determine general and asthma specific risk factors for smoking onset.

#### Methods

A three-wave survey was conducted among 11,000 adolescents (asthmatic and non-asthmatic). A random sample of Dutch schools was obtained in four regions of the Netherlands (north/south/east/west). All classes of the first and second year of 33 schools for secondary education were approached, with a total of 478 classes. All measurements of the three-wave prospective study have been performed. The first measurement was conducted in January 2003, the second in June 2003, the third measurement in December

2004. Finally, of the 10,087 adolescents participating in the first measurement, 6769 filled out all three questionnaires (67%). Data were collected by questionnaires completed during one class session, with the teacher acting as survey administrator.

### Results

About 13% of the adolescents report lifetime asthma, and 6.7% report asthma symptoms in the last 12 months. Whereas the prevalence of lifetime asthma is higher among boys, girls report more asthmatic symptoms in the last 12 months.

With regard to smoking behaviour, our data imply that asthmatic adolescents smoke at least as much as healthy adolescents, and that about 11% of asthmatic adolescents has already become a regular smoker. Moreover, asthmatic girls tend to start smoking more frequently than their non-asthmatic counterparts. In addition, the parents of asthmatic adolescents tend to smoke more often than the parents of their non-asthmatic peers, and the modelling effect of parental smoking behaviour is similar among asthmatic and non-asthmatic youngsters. Furthermore, cross-sectional results showed that both personality and peer environment play a role in predicting adolescent tobacco use among asthmatic and non-asthmatic adolescents. In addition, we found differences between asthmatics and non-asthmatics in the effects of smoking specific cognitions (e.g. attitudes and self-efficacy) on smoking behaviour in a sense that especially asthmatics with pro-smoking attitudes and low feelings of self-efficacy are engaged in smoking. Asthma-specific factors also play a role in smoking onset of asthmatic adolescents. Low adherence in early adolescence predicts smoking onset later in adolescence. Among girls, higher severity predicts smoking onset, whereas among boys, smoking onset is higher among those with low quality of life in early adolescence.

### Researchers

drs MOM van de Ven (PhD student), drs R Otten (PhD student), dr RJJM van den Eijnden (copromotor), prof dr RCME Engels (promotor)

Term 2002 - 2007

Financing Netherlands Asthma Foundation

## 35 Effects of new laws on selling tobacco to adolescents

### Aim and research question

Since 2002 the Dutch government has taken an active role in formulating and implementing new laws with respect to smoking. The most important laws are one stipulating that sellers of tobacco have to ensure that they do not sell tobacco to adolescents younger than 16 years. Another major law concerns the obligation of employers to provide a smoke-free work environment. Finally, from 1 June 2008 a law will come into force forbidding tobacco use in restaurants, pubs, discos, sport canteens, etc.

The main questions of this study are:

- What is the effect of the new law forbidding sale of tobacco to those younger than 16 years on the prevalence of buying tobacco by young people and on the prevalence of smoking among young people?

- To which extent do sellers of tobacco comply with the new law and what are the main determinants (including enforcement) of compliance?
- What is the effect of the introduction of the smoke-free work environment on non-smokers' exposure to environmental tobacco smoke?
- What is the effect of the introduction of the smoke-free work environment on the smoking behavior of smokers?
- To which extent do employers comply with the new law about a smoke-free working environment and what are the determinants (including enforcement) of compliance?
- Which factors influence compliance of catering businesses with the new law forbidding smoking in restaurants, pubs, sport canteens, etc.

### Methods

The questions on the effect of the minimum age for buying tobacco and the effect of the smoke-free working place are answered with time trend studies investigating the differences before and after introduction of these laws. To evaluate the new law for smoke-free catering business, a cohort of catering businesses will be followed from before the introduction of this law until one year after, with one pre-measurement and two post-measurements.

### Results

The effect of the new law requiring a minimum age before being allowed to sell tobacco has had the intended effect. Then proportion of purchasers of tobacco decreased strongly after the introduction of the law. The decrease was most strongly among those young adolescents who consider themselves to be a 'non-smoker'. Among those who smoke the likelihood of buying tobacco even increased.

The introduction of the smoke-free work environment has had as an effect that non-smokers are much less exposed to tobacco smoke during work hours.

However, the less educated and younger non-smoking employees benefited less than other groups from the new law. For the other research questions data collection and analysis is still in progress.

### Researchers

W Verdonk (PhD student, VWA), prof dr RA Knibbe (promotor), prof dr H de Vries (copromotor, Maastricht University)

In collaboration with Food and Consumer Product Safety Authority (VWA), Maastricht University

Term January 2007 - June 2009

Financing Food and Consumer Product Safety Authority (VWA)

## 36 Media influences on smoking behaviour of youth

### Aim and research questions

Recent research has shown that smoking in movies is omnipresent and is almost always portrayed in a positive and desirable way. Exposure to smoking depictions in movies can be regarded as an influence on adolescents' smoking behaviour. Cross-sectional (Sargent et al. 2005) and longitudinal (Dalton et al. 2003) studies in the USA have documented that smoking portrayal in movies is associated with smoking behaviour. The aim of the project is to examine to what extent exposure to smoking in media (contemporary films) is predictive of smoking initiation. Using experimental designs, we will test whether adolescents who are confronted with smoking characters in popular movies are more likely to develop positive attitudes towards smoking, have a greater desire to smoke, and show more actual smoking behaviour than adolescents confronted with non-smoking characters. Underlying mechanisms involving identification and transportation will be tested. In addition, following this line, we will conduct in-depth studies to test the development of attentional biases to smoking cues in smoking and non-smoking adolescents and adults.

### Methods

To test the immediate effects of smoking portrayals in movies we will conduct a series of experimental studies. The experiments will be located at the labs of the Radboud University Nijmegen.

### Results

Data collection is currently in progress. The results of the first study are expected in June 2008.

### Researchers

K Lochbuehler (PhD student), prof dr RCME Engels (promotor), dr RHJ Scholte (copromotor)

**Term** December 2007 - December 2012

**Financing** Behavioural Science Institute (Radboud University Nijmegen)

## 37 Shared and non-shared familial influences on smoking behaviour in adolescence

### Aim and research questions

In general, the majority of previous studies concentrated on parental own smoking behaviour and their smoking-related norms as well as general parenting practices, as precursors of adolescent smoking. However, less is known about the ways parents specifically deal with smoking at home (i.e. anti-smoking socialization). This project focuses on effects of parental anti-smoking socialization practices on adolescent smoking behaviour. Furthermore, this project aimed to test to what extent parents raise their children differently, and whether possible differences in treatment affect differences in smoking behaviour between siblings. In addition, this project focuses on the ways parents might indirectly affect adolescent smoking, as parents may affect their children in their affiliation with particular (smoking) friends, or in their susceptibility to peer pressure.

### Methods

For this project data will be gathered from 428 families, consisting of two parents and two adolescent children, that will be followed for 5 years.

This project, with a total of 6 annual assessments, provides the opportunity to examine predictors of specific trajectories of smoking in adolescents on the short and long term.

An extensive battery of instruments on parental and child behaviours are filled out by all family members. To date, data have been collected at 5 measurement moments.

### Results

In the first study of this project we aimed to investigate whether parental smoking-specific communication and parental smoking are related to adolescents' friendship-selection processes (i.e., their affiliation with smoking or non-smoking friends). Results demonstrate that a high quality of parental smoking-specific communication is related to a lower likelihood of adolescent smoking, whereas the frequency of communication is positively associated with adolescent smoking. Parental smoking was negatively associated with the quality of smoking-specific communication. Both the quality and frequency of parental smoking-specific communication were related to adolescents' selective affiliation with (non-) smoking friends. However, when adolescents affiliated with the same friends over a longer period of time, parental smoking-specific communication was unrelated to adolescent smoking. The findings suggest that parental smoking-specific communication is associated with adolescent smoking directly but also indirectly by influencing the friends the adolescents will associate with.

In the second study we focused on the relation between smoking attitudes and behaviour. Prevention and intervention programs frequently focus on retaining or creating negative attitudes towards smoking in an effort to prevent adolescents from smoking. Therefore, it is essential to know whether smoking attitudes actually precede smoking behaviour, or the other way round, are affected by it. In this study we examined to what extent bi-directional relations existed between smoking attitudes and behaviour. Findings revealed that smoking attitudes did not consistently predict smoking over time. However, past smoking moderately affected subsequent attitudes, suggesting that adolescents who started to smoke developed less negative attitudes towards smoking. These findings imply that smoking behaviour predominantly shapes the smoking-related attitudes, rather than vice versa.

In the third study we tested to what extent smoking-specific parenting and changes in this parenting are related to adolescents' smoking trajectories. Latent class growth analyses were conducted to identify smoking trajectories. Using multinomial logistic regression analyses we examined the relations between parenting and adolescents' class membership. Four trajectories were found, consisting of Non-smokers, Increases, Stable smokers, and Decreases. Quality of parental smoking-specific communication was strongly related to adolescents' membership of the different smoking trajectories, indicating that parents who talked about smoking in a constructive and respectful manner and retained this over time were more likely to have non-smoking children. In contrast, parents who talked often about smoking-related issues and increased these discussions over time were more likely to have smoking children. Having a non-smoking agreement decreased the likelihood of becoming a regular smoker in middle adolescents. These



findings imply that prevention programs should focus on reinforcing parents' smoking-specific socialization, with which the smoking prevalence among adolescents could be reduced.

#### Researchers

drs RNH de Leeuw (PhD student), prof dr RCME Engels (promotor) and dr RHJ Scholte (copromotor)

**Term** April 2006 - March 2011

**Financing** Dutch Cancer Society

### 38 Programming study "Recommendations for research and implementation regarding tobacco control"

#### Aim and research questions

The aim of this study was to provide answers to the following questions:

- What knowledge is available on (cost-) effective interventions in the area of 'prevention of smoking', 'smoking cessation', and 'second-hand (passive) smoking'?
- Which interventions (known to be effective) are available for the different target groups; which interventions are favourable within certain settings; and what parties are potential owners of the intervention?
- Which interventions should be stimulated for a trial run or nationwide implementation?
- What research questions have priority in relation to tobacco control?

#### Methods

An overview in the form of a matrix was compiled in which all available Dutch tobacco control interventions were categorized by goal of the intervention, target group, nature of the intervention, setting, effectiveness and owner of the intervention.

An expert meeting (October 2006) was organized, in which the findings of the overview and the preliminary results and conclusions were presented to experts in the field of tobacco control.

The findings of step 1 and step 2, together with insights supplied by an advisory committee, were used to sharpen and complete the advice document.

#### Results

Results included recommendations for research and interventions in the area of tobacco control.

These recommendations were first documented per target group for the subjects of prevention, cessation and second-hand smoking, followed by more general recommendations for reducing use of tobacco as a whole.

One general recommendation was, for example, to focus more on smoking cessation than on prevention, because smoking cessation interventions designed for adults have been proven more successful compared to smoking prevention interventions designed for children and adolescents. Another recommendation was to focus more on research and development of interventions regarding the relatively large group of smokers that are not motivated to stop, many of which belong to underprivileged socio-economic groups.

Interventions for these groups should mainly focus on increasing motivation to quit, for example by increasing self-efficacy.

#### Researchers

drs M Kleinjan (researcher), drs L Peters (researcher, NIGZ), dr RJJM van den Eijnden (project leader), drs J Bouwens (project leader, NIGZ)

**In collaboration with** Netherlands Institute for Health Promotion and Disease Prevention (NIGZ)

**Term** April 2006 - January 2007

**Financing** Netherlands Organisation for Health Research and Development (ZonMw)

# Obesity

## 39 Shared and nonshared family influences on adolescent eating behaviour

### Aim and research questions

The limited insight gathered into overeating in adolescence in the Netherlands, argues for the need for basic epidemiological information on the prevalence of overeating and differences in eating behaviors between boys and girls (different pathways). Therefore, the project also concentrates on examination of the prevalence of emotional, restraint, and emotional eating, and obesity in a representative sample of Dutch adolescents. In addition, we will test whether boys and girls have different pathways in expressing emotional difficulties. From several studies we know that boys engages more in externalizing problem behaviors (aggression, delinquency, substance use) whereas girls become more strongly involved in internalizing problem behaviors (depression, low-self-esteem, withdrawal)(see Dutch studies by Overbeek et al., 2001, 2003; Mesman et al., 1999, 2000). Nevertheless, as eating problems such as restraint eating and dieting are less frequently assessed as indicators of internalizing problems we will examine whether indeed girls become more strongly involved in this type of behavior.

"Does environment matter: A review of nonshared environment and eating disorders." This is the title of a paper by Klump et al. (2002) on the research that has been conducted on familial influences on eating disorders. Their excellent review of international research on shared and nonshared effects of familial factors on eating disorders clearly show that (a) only limited studies aimed to focus on family factors on development of obesity, binge eating, anorexia and bulimia nervosa, (b) most of these studies did not focus on nonshared family influences and (c) many studies suffer from serious methodological flaws making it hardly possible to draw definite conclusions. Therefore, research is warranted on shared and nonshared familial (parents, siblings) factors and development of eating behavior in adolescents.

### Methods

We aim to deal with most of these shortcomings by performing analyses on data of two ongoing projects at our institute. This project will provide substantial new information about causes of overeating in adolescents and more specifically the role of parents in the development of eating behaviours and overeating.

### Results

The prevalence of eating behaviors was reported for a nationwide sample of Dutch adolescents. Girls scored higher on emotional and restrained eating while boys scored higher on external eating. Cross-sectional positive associations with body mass index (BMI) were found for restrained eating whereas negative associations were found for external eating. In another, longitudinal, study it was found that BMI predicted restrained eating and not the other way around. Further, eating behavior also interacted with the association between television viewing and BMI.

Within families, similarities between siblings but no influences over time were found emotional, external and restrained eating. Also between parents and their adolescent children similarities but no longitudinal effects were found for restrained eating. For emotional eating again we found cross-sectional correlations

between parents' and adolescents' behavior. Adolescents' emotional eating was also associated with reports of general parenting measures. High maternal support, and high psychological control for younger adolescent and low behavioral control for older adolescent were associated with higher emotional eating.

### Researchers

ir HM Snoek (PhD student), prof dr RCME Engels (promotor), dr T van Strien (copromotor, Radboud University Nijmegen), prof dr J Janssens (promotor, Radboud University Nijmegen)

In collaboration with Radboud University Nijmegen

Term 2003 - 2008

Financing Radboud University Nijmegen

## 40 Sex and the City Effects of thin media images on body image and food intake

### Aim and research questions

The aim of the study is to examine the effects of exposure to thin media images on mood, body-image and food intake of normal weight adolescent females, in relation to their dietary restraint and tendency to overeat. The research questions are: Does exposure to thin body images result in overeating and changes in mood and body image? Does this occur in relation to the subjects' degree of dietary restraint or rather in relation to the subjects' tendency toward overeating? Do changes in mood and body image support the negative contrast or rather the inspiration hypothesis? Finally, what is the moderating role of thinness attainability beliefs in this?

We will test our hypotheses in a series of experiments among adolescent females conducted in a naturalistic setting, namely a television room with comfortable couches and a relaxing atmosphere.

### Methods

A series of experiments is conducted to study the participants' behaviour in a naturalistic setting (specially equipped relaxing room at our lab), due to the lack of ecological validity of studies in the laboratory and their high association with demand characteristics. Each experiment will include about 120 participants.

### Results

The results of the first study show that high restrained females who were exposed to commercials with slim models and diet-related products ate less food, whereas low restrained eaters ate slightly more after seeing commercials with slim models and diet-related products. These findings suggest that restrained eaters who are confronted with diet products and slim media images when watching television will be reminded of their restricted eating behaviour and eat less.

The second study examines the effects of exposure to televised thin and average size models on body dissatisfaction and actual food intake. Two interaction effects were found between screen size and restrained eating on body dissatisfaction and actual food intake. Restrained eaters tended to feel worse



and eat less in the average size condition compared to the thin model condition, whereas unrestrained eaters felt worse and ate less in the thin model condition compared to the average size condition. Thus, body size of televised images affected body dissatisfaction and food intake, differentially for restrained and unrestrained eaters.

#### Researchers

drs DJ Anschutz (PhD student), dr T van Strien (copromotor, Radboud University Nijmegen), prof dr RCME Engels (promotor)

In collaboration with Radboud University Nijmegen

Term 2005 - 2010

Financing Behavioral Science Institute (Radboud University Nijmegen)

## 41 Alexithymia as emotional regulation mechanism of the depression-obesity link in adolescence

#### Aim and research questions

Adolescents are faced with a variety of novel experiences that may tax their regulation resources and jeopardize their well-being. Depression is a prevalent problem among adolescent populations. Although research on obesity and depression has mainly evolved as two independent disciplines, co-morbidity does occur, particularly among younger adolescents. Lack of appetite and weight loss are considered to be 'normal' responses to depression. However, weight gain is a far more common 'atypical' response than previously believed, especially at an early age of onset of depression. Recent prospective studies among adolescents provide evidence of a causal pathway in which depression promotes adolescent and young adulthood obesity. To date, the underlying mechanisms of the depression-obesity link have been virtually unexplored: it is not known why depression leads to weight gain.

The overall aim of this proposal is to bridge this gap by studying two mediating routes of the link between depression and obesity in adolescence: overeating and inadequate physical activity behaviours and whether and how alexithymic emotional regulation styles moderate these routes of overeating and reduced activity.

#### Methods

The relation between alexithymia and the development of depression and obesity in adolescence will be examined in a two-year prospective cohort study of adolescents aged 12-13 and 14-15 years at baseline (adolescents from first and second grades). In order to compensate for dropouts, missing values, and excluded participants (with baseline obesity or medical condition affecting their weight) a nation-wide group of 2200 heterogeneous adolescents (equal number of boys and girls) will be enrolled in this prospective study at baseline to eventually gain complete prospective information of 1600 adolescents fulfilling the standards of this study. Participants will be recruited from different high schools in the Netherlands. A consent procedure will be used wherein a letter describing the study and an informed consent form will

be mailed to parents. Parental overeating and obesity will be examined at baseline by a short self-report survey that will be sent to parents. The adolescents will complete surveys in groups of approximately 30 students at baseline (T0) and at 12 months (T1) and 24 months follow-up (T2). Body weight and height of adolescents at all time points will be objectively measured without shoes and with light clothing. All measures will be repeated at these 3 time points.

#### Results

Cross-sectional results so far have shown a positive association between depression and BMI for adolescent girls, but not for boys. Alexithymia shows positive associations with both depression and BMI. Future prospective data will be gathered to gain further insight into the relations between depression, alexithymia and BMI.

#### Researchers

dr JK Larsen (researcher), dr T van Strien (advisor, Radboud University Nijmegen), prof dr R Eisinga (advisor, Radboud University Nijmegen), prof dr RCME Engels (project leader)

In collaboration with Radboud University Nijmegen

Term 2006 - 2010

Financing Netherlands Organisation for Scientific Research (NWO), Radboud University Nijmegen

Collaborators in the field of emotion regulation are dr R. Geenen, Health Psychology, Utrecht University and prof dr M. Lumley, Department of Psychology, Wayne State University, USA. Collaborator in the field of obesity is prof dr Ir J.C. Seidell, Faculty of Earth and Life Sciences, Nutrition and Health, Free University of Amsterdam

## 42 Relationship between parental behaviour and overweight in primary school children in the Netherlands: How can parents prevent overweight in their children? The IVO Nutrition and Physical Activity Child cohort (INPACT)

#### Aim and research questions

The aim of the study is to gain insight in the influence of parents on weight development of children aged 8-12 years. We will focus on the home environment concerning eating and physical activity. The home environment will be divided into a social environment and a physical environment. The social environment consists of parenting styles in general, parental policies around eating/physical activity, and parental role-modelling of healthy eating/physical activity. The physical environment consists of the availability and accessibility of food/physical activity.

The main study question is: Which - modifiable - parenting styles, parental role behaviours and other factors in the home situation of children aged 8-12 years are most predictive of their body mass index; and how do they relate to genetic, demographic and environmental factors? In the search for preventive

interventions that are able to diminish a child's risk to become overweight, there is a need for insight into parental behaviours that are modifiable.

#### Methods

The project contains a four-year longitudinal cohort study in which body weight and height are measured. Questionnaires are filled in with schoolchildren and their parents, at four moments in time (with one-year intervals), starting when the children are 8 years old (group 5 in primary schools). The first period of data collection will take place from September to December 2008.

#### Results

The first results are expected early 2009.

#### Researchers

drs G Rodenburg (PhD student), dr A Oenema (copromotor, Erasmus MC), dr B J F Boon (copromotor), prof dr H van de Mheen (promotor)

**In collaboration with** Erasmus MC

**Term** March 2007 - March 2012

**Financing** Erasmus MC

## 43 Social Influence on Food Intake

#### Aim and research questions

Experimental studies employing experimental confederates who were instructed to eat a lot or a little showed that people tend to eat as much or as little as those with whom they eat. These so-called modeling or imitation effects are extremely powerful and may even overrule feelings of hunger and satiety, even after a food-deprived period of 24 hours. However, the extent to which people model each other's eating behavior is not the only situational cue that eaters use in deciding how much to eat. Some researchers suggested that the physical appearance of the people with whom one eats is important in explaining the magnitude of modeling effects. Further, studies showed that larger portion sizes led to greater energy intake. To date, the portion-size literature, social-modeling and impression-management literature have been relatively independent research areas. In this research project, we intend to combine these three fields by examining the potential influences of these types of situational norms (eating confederate and portion size). In sum, the overall aim of this project is to gain insight into the underlying mechanisms of social-modeling effects on food intake by examining whether and how situational cues moderate social modeling of eating.

#### Methods

We will conduct a series of experiments to study participants' modeling of eating behavior in a relatively naturalistic setting. The advantage of these kinds of observational experiments in a naturalistic setting

is that people generally display more typical, real-life behaviors than in a clinical or experimental setting. To stimulate a naturalistic setting, we made use of small room furnished as a living room (also used in the project of Anschutz et al.). People feel at ease quickly and several participants commented on the pleasant atmosphere of the room. Each experiment will include about 100-120 participants.

#### Results

Females who were exposed to confederates who ate a large amount of high-density food (chocolate-coated peanuts; M&Ms) consumed more than those who were confronted with confederates who ate a little or nothing at all. However, these modeling effects were only found in the manipulated conditions (a confederate who with a somewhat thicker abdomen). Findings suggest that women only model the eating behavior of another woman if their appearance is somewhat similar.

In a replication of the first study, we again found that women consumed more when exposed to large-eating confederates. However, in this experiment we offered the participants and the confederates healthy snack food (carrots and cucumber), instead of M&Ms. No differences were found between participants' intakes in the slim and normal-weight confederate conditions, suggesting that the physical appearance of the model was of no influence on the intake of healthy food.

To test whether the nature of the social interaction between the participant and the confederate was of influence in the amount of food consumed, we made use of a sociable and an unsociable model. It was found that participants consumed significantly less if exposed to an unsociable woman who consumed only a small amount of M&Ms, this suggests that impression-management strategies or uncertainty suppressed participants' intentions to eat palatable food.

#### Researchers

RCJ Hermans MSc (PhD student), dr J Larsen (copromotor) prof dr CP Herman (copromotor, University of Toronto), prof dr RCME Engels (promotor)

**In collaboration with** University of Toronto

**Term** 2007 - 2012

**Financing** Behavioral Science Institute (Radboud University Nijmegen)

## Social Relief and Care

### 44 Development and testing of client profiles to stimulate flow within social care for the homeless

#### Aim and research questions

In recent years an increasing number of persons utilize the social care system. Additionally, this group is dealing with increasingly serious problems. Unfortunately supply and demand of care often do not match in practice. Especially for specific groups, such as the homeless youth, ex-prisoners, and adults with a dual diagnosis, the gap between offered and wanted care is large.

In order to deal with some of these disturbing developments, client profiles can be helpful. A client profile is a profile drafted in order to develop customized, fitting care for a specific target group. It contains a specific combination of characteristics for a category of (potential) clients. The characteristics can relate to the specific set of problems and needed care, and are grouped into elements that are usable for the development of a program of care for the specific target group.

The main research goal was: development of client profiles for use in the social care for homeless persons, on the basis of demographics, several areas of living (housing, psychological and physical health, finances, and social relationships), and needs in terms of care and support. The profiles will be able to distinguish between various groups, in order to create a better match between supply and demand of care.

#### Methods

The project had the following components: 1) review of the literature, 2) interviews and visits, 3) drafting concept client profiles and testing them, and 4) reporting.

#### Results

Profiles were drafted for adult homeless people, homeless youth, ex-prisoners, and other groups vulnerable to homelessness. The profiles contain the following five dimensions:

- Nature and severity of the homelessness
- Type of problems
- Attitude towards care
- Demands of care
- Supply of care

#### Researchers

drs A Snoek (researcher), drs A van der Poel (projectleader), prof dr J Wolf (advisor, Radboud University Nijmegen Medical Center), prof dr H van de Mheen (advisor)

Term June - December 2007

Financing Netherlands Organisation for Health Research and Development (ZonMw)

### 45 Effectiveness of intensive community-based care for persons with complex addiction problems: contribution of specific program components

#### Aim and research questions

The study aims to provide longitudinal information on the effectiveness of intensive community-based care, and to formulate hypotheses on the contribution of specific (groups of) program components to effectiveness. The research questions are: "What is the effectiveness of intensive community-based care programs on the client level, including both short-term and long-term outcome measures?" and "What specific (groups of) program components are related to effectiveness?"

#### Methods

The study has a natural quasi-experimental research set-up in which three intensive community-based care programs are compared. The three programs are largely comparable regarding how they are organized and how they provide care. However, because they differ on a small number of components this allows to explore the consequences of these differences on the effectiveness of the programs.

At the start, detailed descriptions will be made of the programs regarding their organisation, professionals, process, and objectives using a previously developed instrument: the ICPC. Then, all clients that enter the program will be followed during a 2.5 year period. Assessments will take place at entrance, at discharge and, when appropriate, with intervals of 6 months. A final assessment takes place 6 months after discharge. Considering the type of clients involved (i.e. care-avoiding persons) and the intensive character of the care, use will be made of brief diagnostic instruments, such as the Honos or the Kennedy (measuring psychiatric and social functioning, and substance use) and/or the short version of the Mansa (measuring perceived quality of life). These instruments will be selected during the first phase of the study. The study will be performed in close cooperation with regular practice.

#### Results

The study has recently started and results are not yet available.

#### Researchers

dr DPK Roeg (researcher), dr LAM van de Goor (project leader), prof dr HFL Garretsen (advisor)

In collaboration with GGZ Oost Brabant (community based care teams) ('bemoiezorgteams'), Community Based Care Team Eindhoven, Community Based Care Team Tilburg, Novadic-Kentron, GGD Hart voor Brabant

Term April 2008 - April 2012

Financing Netherlands Organisation for Health Research and Development (ZonMw)

## 46 Living condition of (residential) homeless people and dependent drug users in Rotterdam. Results of Trendspotting 2007

### Aim and research questions

The aim is to describe the living conditions of homeless people and dependent drug users in Rotterdam in relation to their substance use. In addition, to describe the retail market of heroin and cocaine and its relationship with public nuisance.

### Methods

A total of 118 drug users and homeless people were interviewed using a structured questionnaire; they were mainly recruited in facilities for drug users and homeless people. Semi-structured interviews were held with key informants (police, nuisance professionals, drug users). Registration data from the public prosecution office were examined (2005, 2006, 2007 partly).

### Results

About 75% of the target group is male, the mean age of the interviewed persons is 45 years, 59% has an ethnic Dutch background, 30% of the target group is homeless, 42% lives in some sort of supported housing, and 28% runs a household independently. Heroin and cocaine use has decreased compared to the 2003 survey and methadone use has increased. Cocaine is used by more people than heroin. Homeless drug users use heroin in a larger quantity (0.87 gram) than independently housed people (0.31 gram), and they use heroin on more days than all other drug users. The major source of income is social security benefits. Income from supported work projects has increased compared to 2003. Men have more financial debts than women; 65% of the target group has fines for violating public by-laws and public transport. The majority of drug users obtained drugs from so-called cell phone dealers. The most important location to use drugs is at home. Drug use in public places is reported by 46%, and 56% reported that the public space is the most important location to use alcohol. Data from the public prosecutor show that, compared to 2005, the number of fines given for drug use in public has decreased in all districts.

### Researchers

drs C Barendregt (researcher), drs A van der Poel (project leader)

**Term** January - November 2007

**Financing** Municipal Health Authority Rotterdam-Rijnmond

## 47 Referral to care of homeless persons in Rotterdam

Developments in social care utilization and psychosocial problems among homeless persons in the Rotterdam social care system in 2006

### Aim and research questions

The project "Referral to care of homeless persons in Rotterdam" is part of a project that spans multiple years, which has the aim to: 1) develop and implement the brief screener "Psychiatry and Addiction" in the social care system, and 2) evaluate the referral to care of homeless persons in Rotterdam. In the first phase of the project, the development of a screening questionnaire to establish psychiatric disorders and substance abuse among homeless persons had a central role. Using the data collected from that phase as a stepping stone, the emphasis is placed on the secondary objective, an evaluation of local care referral.

Evaluation of the local referral to care in Rotterdam has two objectives. Firstly, the evaluation gives insight into the development of psychosocial problems and usage of care over time, which is valuable given the general lack of longitudinal studies involving homeless persons. Secondly, the evaluation provides direct, practical information to policymakers about the functioning of the chain of care: how well does the chain of organizations function at this time and are there any opportunities for improvement?

### Methods

In the first phase of the project extensive information was obtained from 300 homeless persons in Rotterdam. Information is available about their psychiatric diagnoses and psychosocial problems. This information will be used as a stepping stone to evaluate referral to care in Rotterdam. It is aimed to retrace and interview as many of the 300 original homeless persons as possible. The interview will focus on their (possible) referral to care in the last year and on their current condition in terms of psychiatry and addiction.

Additionally, qualitative information about the referral to care is obtained by tracing the referral to care of 20 clients of the newly started "Centraal Onthaal" desk (Central Intake) that distributes the permission to use night shelters in Rotterdam. The 20 clients are interviewed at intake, using a semi-structured interview to assess their current status, and are revisited 3 to 4 months later to assess progress in their care referral.

### Results

In 2006 several steps were taken to improve the referral to care of homeless people in Rotterdam. The current study evaluated these steps. Results show a group of homeless people that is changing, but is not doing much better. Their living situation did improve in 2006, a substantially smaller part of the respondents uses night shelters. Generally they have moved on to living on their own, or a residential group-based form of living. Utilization of care has been stable in 2006. About half of the respondents who have a confirmed psychiatric diagnosis for substance use or a depression/psychotic condition are receiving some kind of care. Furthermore, the type of care received is almost always distributed methadone.

In the sub-study looking at care referral of clients after intake at the Central Intake desk (CO) it was found that about 50% of the 21 interviewed clients can be retraced in Rotterdam after four months. Of the 11 re-interviewed clients, 6 have received a personalized care plan. The assignment of client managers and drafting of personalized care plans by organizations in the Rotterdam Social Care is not yet working optimally. Some of the problems were the communication between separate organizations, motivating their respective employees to deal with the new processes, and the education level and freed-up time for those employees not matching the new situation.

One of the main results was the surprisingly small number of social care clients that are receiving treatment in the public health system (including addiction care). Furthermore, the study shows that those clients with a more serious set of problems are more likely not to be in treatment.

On the basis of the sub-study into care referral we can conclude that too much is expected of the client's own initiative, even with the current intensified coaching. A more personalized approach, with larger and more lasting involvement of assertive treatment is appropriate. Finally it is found that several clients register at the Central Intake desk with ulterior motives. They do not want a place to sleep, but rather a welfare check or support in finding a new home. After registering they avoid the night shelter, which makes it hard to set up a personalized program for them. Adjusting policy might be required in order to provide care for a larger group of care-deprived clients.

#### Researchers

drs AJ van Rooij (researcher), ir E Wits (project leader), prof dr H van de Mheen (advisor), prof dr N Mulder (advisor, O3 Research Centre Mental Health Care Rijnmond)

**In collaboration with** O3 Research Centre Mental Health Care Rijnmond

**Term** January 2006 - December 2007

**Financing** Municipal Health Authority Rotterdam-Rijnmond

## 48 Evaluation of the brief screener "Psychiatry and Addiction"

#### Aim and research questions

The project "Referral to care of Homeless Persons in Rotterdam" is part of a project that spans multiple years, which has the aim to (1) develop and implement the brief screener "Psychiatry and Addiction" in the social care system and (2) evaluate the referral to care of Homeless Persons in Rotterdam.

In the first phase of the project, the development of a screening questionnaire to establish psychiatric disorders and substance abuse among homeless persons had a central role. In the second stage of the study, an evaluation of local care referral was executed in Rotterdam.

In February 2007 the Screener its corresponding manual were introduced in a training session held by O3 and IVO. The Screener is now in use in the intake process that guides homeless persons to social care

in Rotterdam. In the third stage of the project "Referral to care of Homeless Persons in Rotterdam", the performance of the developed brief screener "Psychiatry and Addiction" is now evaluated in practice.

#### Methods

In addition to the actual development of the Screener, performance in daily practice is a second necessary property for the Screener.

In order to evaluate the in-practice performance of the screener, data will be collected at several organizations for social-care. The overall goal will be to compare screener results with professional psychiatrist's judgment on the patient, in order to evaluate the in-practice performance of the screener.

Already data has been collected on client screener scores for around 750 respondents at the Rotterdam Social affairs and Work Department (SoZaWe). Further information that will be pursued are: diagnoses/main problems, moments of contact with care in the year before screening, type of care received, and the time-to-receiving-care after (central) intake.

#### Results

To be announced as they become available in September 2008.

#### Researchers

drs. A.J van Rooij (researcher), dr P Vuijk (researcher), Ir. E. Wits (project leader), prof dr H van de Mheen (advisor), prof dr N Mulder (advisor, O3 Centre Mental Health Care Rijnmond)

**In collaboration with** O3 Research Centre Mental Health Care Rijnmond

**Term** February 2006 - September 2008

**Financing** Municipal Health Authority Rotterdam-Rijnmond

## 49 Out of the vicious circle: to a chain of care for the public mental health target group in the Westelijke Mijnstreek

#### Aim and research questions

The public mental health coordination group of the region Westelijke Mijnstreek (Sittard-Geleen and surroundings) wanted to gain insight into the bottlenecks of care supply for two target groups: people with a dual diagnosis (addiction and psychiatry) and people with "triple trouble" (dual diagnosis and mental/physical limitations). The chain of care supply is not - yet - comprehensive for both groups.

The following questions were addressed: 1) What is the nature and extent of the target groups in the Westelijke Mijnstreek? 2) What is the nature of the experienced problems regarding drug/alcohol taking, housing, health, police, and work and income? 3) What are help/care needs and questions of the target groups? and 4) What are the bottlenecks in providing care?

**Methods**

Because of the relatively short time available, a quick scan was conducted in which (as much as possible) existing sources of information and knowledge was used. Missing information was completed through interviews and observations among the target groups. The research methods were: review of written sources, analysis of registration data (handed over by the local and regional organizations), and field observations including conversations with professionals and drug users within the target groups. The results were presented to and discussed within a focus group of regional professionals.

**Results**

Many organizations do not register dual or triple diagnosis, which made it difficult to estimate the size of the target groups. In the focus group the professionals made an estimation that was higher than the number that was counted in the available registrations (which is 370 persons). However, there is an overlap in the registrations and also in the estimations of the professionals. Regarding characteristics of the target groups, most are male, aged between 35 and 50 years, of Dutch origin, and divorced or never married. Frequently occurring problems among the target groups are housing, debts, day activities, legal detention, etc. People experience (major) problems in different life areas, and these have worsening effects on their situation. The municipality and help/care organizations intend to further cooperate in dealing with these issues and realizing a comprehensive chain of care.

**Researchers**

drs E van Vliet (researcher) and drs A van der Poel (project leader)

**Term** February - June 2007

**Financing** Municipal Health Authority Zuid Limburg

## 50 A social hotel and night shelter in Delft Inventory of public nuisance in the neighbourhood: baseline measurement

**Aim and research questions**

A drug service organisation needs to move a social hotel and night shelter to a new location. A committee of stakeholders that monitors the process recommended a baseline measurement of public nuisance in a defined area that surrounds the new location. Once the service has moved to the new location and is operational for six months, the measurement will be repeated.

**Methods**

Semi-structured interviews were held with stakeholders (inhabitants, police, civil servants and care providers). Data on facility-related nuisance were obtained from police registration. Observations and informal talks were held in the new area. A household survey in the defined area was conducted. The structured questionnaire contained questions on feelings of safety, observed nuisance, and vulnerable locations in the area. Additionally a 10-minute video was produced to visualise the current state in the area.

**Results**

Data from the various sources show a consistent picture: public nuisance in the area that is related to the homeless people and dependent drug users is low. One third of the respondents say that they "sometimes" feel unsafe in their immediate environment. Most nuisance arises from university students returning drunk from their weekly night out. One third of the respondents found dog faeces and litter to be a nuisance. The most vulnerable spots in the area are the train station together with its small pedestrian/bicycle tunnel.

**Researchers**

drs C Barendregt (researcher), drs A van der Poel (project leader)

**Term** June 2007 - October 2007

**Financing** Perspective Foundation Delft ("Stichting Perspektief Delft")

## 51 Specialized health care for the homeless: evaluation of the Rotterdam 'Street GP'

**Aim and research question**

Since 2003 the Municipal Health Authority Rotterdam-Rijnmond (in association with day and night shelters, the Municipality of Rotterdam, health insurance 'Zilveren Kruis', the care office 'Zorgkantoor' and care provider 'Zorggroep Rijnmond') has been working to structurally set up general practitioner (GP) office hours for the homeless. This study explores how the GP office hours function and how they can be improved. Topics of the study are: characteristics of patients, use of care (number of consultations, type of complaints, prescriptions of medication), satisfaction, and use of care protocols.

**Methods**

The questions were answered by means of: a) analysis of 3 months of the GP information system in 2004, 2005 and 2006, and b) a written questionnaire among the 8 GPs and 11 nurses.

**Results**

In each of the 3-month periods over the three years, about 250 unique patients were seen by the Street GPs. The majority of the patients is male and aged over 40 years. About 75% has health insurance, leaving 25% with no insurance (including illegal immigrants). Two thirds of the patients visited a Street GP once or twice. The mean number of contacts per patient has increased over the years from 2.4 to 2.7. An average consultation takes about 25 minutes. In comparison: a Dutchman who visits a GP does that on average 5.0 times **per year**, and the mean duration of their consultation is about 10 minutes. Complaints about joints, lungs, skin and stomach were each expressed by 10-20% of the patients. The number of patients expressing mental or psychological complaints has halved in 2006 (to 9%). Also, the number of patients with 'tramp's feet' has decreased (to 10%). In 2004, 44% of the patients were prescribed medication; in 2006 this percentage had decreased to 28%. In recent years, prescribing medication for the uninsured (including illegal immigrants) has remained problematic.

Over 50% of the patients visiting the Street GP struggle with substance abuse and/or psychological problems. The majority (66%) has a registered problem exclusively with substance abuse, 10% exclusively with psychological problems, and 23% has a dual diagnosis.

The doctors and nurses are generally satisfied with the functioning of the Street GP practice, and attribute this to three main factors: accessibility (on-site GP hours, effective referral by nurses), continuity (in care and in time, e.g. through electronic patient files), and cooperation (at both management and operational level). Points which could be improved are: more hours of nursing care, more and better screening and registration, additional and more accurate collaboration with other organizations (psychiatry, addiction care, hospitals) and higher accessibility of medication for the uninsured.

#### Researchers

drs A van der Poel (researcher), prof dr H van de Mheen (project leader)

Term December 2006 - October 2007

Financing Municipal Health Authority Rotterdam-Rijnmond

## 52 Supported housing for dependent drug users Evaluation of the "zOnder dak" project ("with or without shelter")

#### Aim and research questions

The aim of this evaluation research is to describe process objectives of the project and to measure whether the demand for supported housing is met by the provision of supported housing.

#### Methods

In total, 15 semi-structured interviews were held with professional supporters, 13 visits were made with supporters to the supported households, and 100 structured interviews were held with clients of supported housing. The structured interviews included the need-for-support list for clients. The supporters completed 300 questionnaires, including the need-for-support list for support providers.

#### Results

Five organizations provide supported housing to 350 persons who have mainly drug problems (49%) and/or alcohol problems (22%) and/or psychiatric problems (14%), or other types of problems. The mean duration of homelessness previous to entry into the project is 40 months; the mean duration in supported housing is 23 months. For each client 144 minutes of weekly support is available. The mean duration of direct contact between client and supporter is 40 minutes. The remainder of the time is spent on travel, administrative support and team meetings. The need for support, according to the clients, is mainly of an administrative nature followed by the need for psychological support. The support providers indicate the same issues as the client, but estimate the need to be significantly higher. Also, clients' opinions on the need for support related to substance use is significantly lower than the estimation of their support.

On other topics we observed a similar discrepancy between the level of needs perceived by supporters and by clients. The difference in opinion between clients and support may be explained by a combination of factors, such as a bias related to the inequity in the client-supporter relation, and social desirability in answering the questions. Contrary to the classical ideas that running a household centers around hygiene and efficient shopping, the study shows that the core issues of support concern a lack of bureaucratic and administrative competences.

#### Researchers

drs C Barendregt (researcher), prof dr H van de Mheen (project leader)

Term May 2006 - January 2007

Financing Municipal Health Authority Rotterdam-Rijnmond

## 53 Pilot information supply Social Relief ("Maatschappelijke Opvang") 25 trajectories in focus

#### Aim and research questions

In the framework of the national-local project to reduce and prevent homelessness ("Plan van Aanpak Maatschappelijke Opvang"), the Municipal Health Authority Rotterdam-Rijnmond and the department of Social Affairs and Employment of the Municipality of Rotterdam have implemented a web-based monitoring system with information on individuals who use shelter facilities, and facilities for supported and accompanied housing. Among other functions, the system is used to monitor to what extent Rotterdam meets its targets agreed with the national government. The research question is: to what extent do the client registration systems of the various care providers match with the municipal monitoring system.

#### Methods

Operational definitions of the municipal monitoring system were compared with those of the care providers. A sample of 25 cases, selected on diversity and complexity, from various care providers served as test cases. In each case operational definitions of the municipal monitoring system were tested on compatibility with the registration system of the care provider.

#### Results

The testing of cases revealed that the municipal monitoring system and the registrations system of care providers are not fully compatible. Care providers do not store all client data according to municipal operational definitions.

This implicates that registration data need to be converted by hand into the format of the municipal monitoring system. Furthermore, the test cases show that some data relevant for municipal monitoring are 'hidden' text-based journals of the client registration systems. This implicates that conversion of data is a human act of interpretation that needs inter-subjective approval of representatives of both registration systems.



**Researchers**

drs C Barendregt (researcher), ir E Wits (project leader)

**Term** August 2007 - December 2007

**Financing** Municipal Health Authority Rotterdam-Rijnmond

## Internet

### 54 Compulsive Internet Use

#### **Aim and research questions**

In 2001 an IVO project started aiming to explore the newly emerged phenomenon of Compulsive Internet Use (CIU), or internet addiction as it is popularly known. In 2005 the results of studies that elaborated on this earlier work were described in a series of articles, which together form a dissertation. Aims of these studies were: 1) development of an instrument to assess CIU, 2) estimation of the prevalence of CIU in the general Dutch population, 3) comparison of the addictive potential of various internet functions, 4) study of the relationship between online communication and psychosocial wellbeing among adolescents, and 5) augmentation of the knowledge on the processes and mechanisms involved in the development and maintenance of CIU in terms of personality features and psychosocial aspects.

#### **Methods**

Three studies were conducted: a longitudinal online survey study with an interval of one year among a representative sample of adult heavy internet users, an online study using a large (over 17,000 respondents) convenience sample, and a longitudinal study with an interval of six months using a paper-and-pencil questionnaire among students in the eighth grade of four schools.

#### **Results**

The studies resulted in a short and easy to administer, stable, valid and reliable instrument to assess CIU (the CIUS). The prevalence of CIU among the general internet-using population appeared to be about 1%. Adults who use the internet for searching online erotica, for online communication, or for gaming have the highest chance to be compulsive internet users. Searching online erotica appeared to have the largest addiction potential. Adolescents who frequently engage in instant messaging and chatting have a higher incidence of CIU six months later, adolescents who spent much time communicating via instant messengers showed a higher incidence of depressive symptoms six months later, and among lonely adolescents the use of instant messengers appeared to diminish over time. The personality dimension 'low emotional stability' and the psychosocial wellbeing indicator 'depressive symptoms' correlated most clearly with CIU. Furthermore, compulsive internet users were more impulsive than non-compulsive internet users indicating that CIU may be characterized as an impulse control disorder.

The studies were combined into a dissertation which was defended by dr GJ Meerkerk on September 20, 2007 at the Erasmus University Rotterdam.

#### **Researchers**

dr GJ Meerkerk (researcher, PhD student), dr RJJM van den Eijnden (project leader, copromotor), prof dr HFL Garretsen (promotor)



Term 2005 - February 2006

Financing Volksbond Foundation Rotterdam (Stichting Volksbond Rotterdam)

## 55 Excessive and compulsive internet use: a qualitative analysis

### Aim and research questions

Although the internet has many positive consequences, even in the early days of the internet reports emerged on the addictive qualities of the internet experienced by some users. Since then, several studies have addressed the adverse consequences of, in particular, excessive online gaming, searching online erotica, and chatting. However, most of these studies are of a quantitative nature which does not allow specific conclusions to be drawn about the nature and etiology of the problem on an individual level. The present qualitative study aims at specifying the specific circumstances, psychosocial characteristics (co-morbidity), internet users, and consequences of compulsive internet use. Goal is to gather information useful for the development of therapeutic procedures.

### Methods

Qualitative data were gathered by analyzing dossiers of clients of two addiction care organizations who entered treatment for problems related to excessive or compulsive internet use. Furthermore, a group of 23 excessive or compulsive internet users were asked to keep a diary during three days recording internet use, cognitions, and emotions.

### Results

Both methods showed that excessive and compulsive internet use was often correlated with other psychosocial problems (co-morbidity). Many excessive and compulsive users had a troublesome youth with emotional, affective and/or physical neglect. As a result effective coping strategies were not developed and the virtual world of the internet was used as a way to escape from problems. Excessive and compulsive internet use appeared for many to be a manifestation of, as well as an escape from, other problems. For some, spending a lot of time online as a coping strategy appeared to be effective; for others, however, using the internet to deal with problems appeared counterproductive. Especially for compulsive internet users, spending a lot of time online appeared to have a negative effect on mood; they reported apathy, laziness, and procrastination resulting in feelings of dissatisfaction. These results illustrate that compulsive internet users have indeed lost control over their internet use as they continue this use even when they experience the negative effects on their mood.

It is expected that addiction care organizations will see a rise in the number of clients with internet-related problems. This study shows that compulsive internet use is a serious mental health problem for which specific treatment procedures may be needed. The present study offers insight in the specific problems and situations of compulsive internet users and thereby facilitates the development of new treatment procedures.

### Researchers

drs AJ van Rooij (researcher), dr GJ Meerkerk (researcher) dr R van den Eijnden (project leader)

In collaboration with Novadic Kentron

Term January - December 2007

Financing Volksbond Foundation Rotterdam (Stichting Volksbond Rotterdam)

## 56 Monitor Internet and youth, second measurement: a family perspective

### Aim and research questions

The second measurement for the Monitor Internet and Youth was conducted between January and April 2007. A monitor is a repeated study with fixed intervals, which uses the same questions to systematically collect information about changes over time in a certain group. The general aim of the second measurement of the Monitor was to obtain insight into the trends and developments in Internet use among adolescents, and the consequences of this Internet use for the psychosocial wellbeing of these adolescents.

### Methods

The second measurement for the Monitor Internet and Youth started in January 2007. All participating primary and secondary schools from the first measurement were re-contacted regarding their participation in this second measurement. With the exception of one primary school and one secondary school, all schools were willing to participate in the second measurement. Because last year's participants in the second year of secondary school are now in their third year, the third year was also included in this year's measurement. This yields a sample of 15 primary schools and 9 secondary schools, with a total sample size of 4900 adolescents aged 10 to 16 years. All students received a paper questionnaire in the classroom. Both parents of the adolescents in secondary schools received a postal questionnaire; 3354 of those parents completed the questionnaire and send it back.

### Results

Between 2006 and 2007 access to the internet has increased once again. Of all children aged between 11 and 15 years, 97% has access to the internet within their home. The overall percentage of compulsive internet users has slightly decreased between 2006 and 2007, from 4.3% to 3.0%.

Among children with a non-Dutch ethnicity both the number of internet connections as well as the time spent on the internet show a considerable increase in the last year. For certain groups, such as Surinamese and Antillean/Aruban children, an increase in compulsive internet use has been found.

Additionally, it was found that 3% of gamers play compulsively. Over 70% of children plays online games of one variety or the other on an occasion. It was found that some of them use online games to 'escape'. Especially those children that are lonelier and more socially anxious to begin with, spend more time playing online games. The risk for compulsive gaming is large for those children with a negative self-esteem.

Compulsive gamers spend around 27 hours a week on online gaming. Unfortunately, compulsive gamers report lower performance in school and seem to do less well psychologically and socially.

#### Researchers

drs AJ van Rooij (researcher), dr RJJM van den Eijnden (project leader), dr A Vermulst (researcher, Utrecht University)

**Term** Second measurement January - July 2007

**Financing** Volksbond Foundation Rotterdam, ICT at School, Tactus Addiction Care, Novadic Kentron Addiction Care

## 57 A Developmental Psychological Perspective on Compulsive Internet use What can parents do about it?

#### Aim and research questions

Recent Dutch studies indicate that a substantial number of Dutch adolescents has developed a pattern of compulsive internet use ('Internet addiction'). Although a previous study shed some light on the role of parents in the developmental process of compulsive internet use, the question remains as to what parents can do to prevent compulsive internet use among their children. Therefore, the following research question will be addressed in the present study: "Which general and internet-specific parenting practices can help to prevent compulsive internet use among children and adolescents?"

#### Methods

As part of the second measurement of the monitoring study 'Internet and Youth' approximately 4900 children aged 10-15 years and their parents received a questionnaire addressing internet use (e.g. compulsive internet use) and parenting practices. For the 4900 children, data were collected in a school setting; for parents, data were collected by sending written questionnaires to the home address of the parents; 3354 of those parents completed the questionnaire and returned it.

Besides compulsive internet use, the questionnaires contained scales measuring general parenting practices such as enforcing strict control, enforcing psychological control, and providing social support. In addition, the questionnaires contained scales on internet-specific parenting practices, such as parental rules regarding frequency and duration of internet use, parental norms regarding content of internet use, tolerance towards excessive internet use, and frequency and quality of communication about internet use. Because part of the sample of young people also participated in the first measurement conducted in 2005-2006, both cross-sectional and longitudinal analyses were conducted. Data were analyzed by means of Structural Equation Modeling.

#### Results

In 2007 parents are stricter about the internet use of their children than in 2006. They establish more rules and keep a better eye on their children. However, the children report that they feel less understood when talking about their own internet use with their parents. The quality of the communication has deteriorated - the children are taken less seriously and feel less understood. This is unfortunate since good communication has been found to prevent compulsive internet use ('internet addiction') in children.

Cyber bullying is a persistent phenomenon and still found in 2007. About 25% all children engage in name-calling over the internet at least once per month.

Insulting or ignoring others happens even more. However, cyber bullying does not seem to be increasing over time. Parents can prevent cyber bullying by establishing a good relationship with their children, and emotionally supporting their children while maintaining structure and rules.

#### Researchers

drs AJ van Rooij (researcher), dr RJJM van den Eijnden (project leader)

**Term** January - July 2007

**Financing** Volksbond Foundation Rotterdam (Stichting Volksbond Rotterdam)

## Other research

### 58 Implementation of a domestic violence approach in the southern region of the Netherlands

#### Aim and research questions

The aim of the study is to examine which is the best organizational structure and implementation strategy for implementing a family-directed approach in order to treat and prevent relapse in cases of domestic violence.

The research questions are following:

- What is the progress in the implementation of the family-directed approach within the network of organizations in Zuid Limburg?
- Which factors promote or inhibit this implementation process?
- Which amendments are needed in the organizational structure in Zuid Limburg in order to successfully implement the family-directed approach?
- Which recommendations result from the situation in Zuid Limburg that can be helpful for the implementation of the family-directed approach in other regions?

#### Methods

The method consists of four phases:

**Inventarisation:** Interviews with the coordinators of domestic violence within all the organizations, in order to clarify the organizational structure in this specific region.

**File research:** All the patient/client files of the year 2005 in which domestic violence is mentioned will be read in order to collect information on the number of cases of domestic violence, the type of violence, the type of treatment, and the communication with and referral to other organizations concerning all the members of the families in the files.

**Interviews:** A second series of interviews with coordinators of domestic violence cases in all participating organizations will shed light on the findings in phase 2.

Based on the former three phases, recommendations will be formulated and discussed with the participating organizations, in order to define the most optimal organizational structure for successful implementation of the family-directed approach concerning domestic violence.

#### Results

In 2005, phase 1 was started (see above). For each participating organization a plan was made on how to conduct the file research in the next phase. Also, a privacy protocol was developed, and all organizations were asked to examine this protocol and sign the official documents for participating in the study. In 2006 the greatest part of all the client files in which domestic violence is mentioned were read by our research assistants and the information needed for this project was collected from those files. Also, 20 of the planned interviews took place in 2006. In 2007 the data collection was completed and all collected data were analyzed and written down in an integrative report that also contains the implications of the findings regarding the implementation of the family-directed approach. In total, information was collected from

4284 files, considering 3909 unique persons. Most of the central clients (64%) in the files were victims of domestic violence. 14% of the unique persons were found in files of two or more of the participating organizations. In 55% of the cases family members of the central clients were involved in the treatment.

#### Researchers

dr AM Coumans (researcher), dr BJB Boon (project leader), prof dr RA Knibbe (project leader)

**In collaboration with** Foundation Domestic Violence Southern Limburg

**Term** October 2005 - November 2007

**Financing** Netherlands Organisation for Health Research and Development (ZonMw)

### 59 Effect of the free hepatitis B campaign among men who have sex with men: findings from the literature in 2001-2007

#### Aim and research questions

The aim of the study was to summarize the findings of about 10 recent studies on the national free hepatitis B campaign in the Netherlands. The findings to be summarized had to concern men who have sex with men (MSM). The main goal of the study was to establish which research is still needed to get a better grip on this specific group. The question underlying the project was: which adaptations to the present national hepatitis B campaign should be made in order to optimally reach the specific target group of MSM.

#### Methods

The method consisted of conducting a structured summary of the main findings of the 10 recent studies, and of formulating recommendations for adaptation of the hepatitis B campaign. The studies were selected by GGD Nederland, and a literature search was conducted to see whether their selection was complete; thereby, two additional studies were added to the initial 10. In a schematic way, results of the various studies were presented on awareness of the campaign, vaccination rate, as well as on determinants of these primary outcomes.

#### Results

Results show that 37-74% of the MSM in the Netherlands is aware of the free hepatitis B vaccination campaign. This awareness is lower among bisexual men compared with homosexual men, low socio-economic status groups, and men with a non-Dutch ethnicity. About 38-52% of the MSM appears to be vaccinated against hepatitis B. It is concluded that an important part of the MSM has not yet been vaccinated. Apart from the selective awareness of the possibility to obtain free vaccination, this may be due to the social barriers MSM feel when considering vaccination.

Moreover, a substantial group of MSM is of the opinion that they are not at risk for the hepatitis B virus, or experiences lack of time as a barrier for obtaining the vaccination. Future research should be aimed at MSM of low socio-economic status groups, MSM in various ethnic groups, bisexual men, and men under the age of 30 years.

**Researchers**

drs R Vet (researcher), dr BJB Boon (project leader)

**Term** March 2007 - June 2007

**Financing** Netherlands Society of Municipal Health Authorities

**60 Public Nuisance in Den Dolder II****Aim and research questions**

The community of Den Dolder hosts a psychiatric hospital. In 2005 an increasing number of community members complained about nuisance caused by patients from the hospital. Qualitative research confirmed and refined these complaints. The so-called safety partners (psychiatric hospital, police and municipality) have taken several actions to reduce the nuisance. The results of these actions were measured in 2006 and the results showed a decrease in perceived nuisance. The research question for 2007 is whether the achieved results are continued.

**Methods**

An internet-based surveys and semi-structured interviews with villagers and professionals were conducted in November 2007. For the survey all households in the centre of Den Dolder were invited to participate. People without internet access were offered a paper version of the questionnaire. In addition to the questionnaire semi-structured interview were held with villagers, shopkeepers and professionals working at the psychiatric hospital and in the village.

**Results**

Survey response was 10%, which is lower than the last survey in 2006 (12%). The sample shows similar demographics as in 2006: mean age 51 years; male 57%; 56% higher education; 67% has lived in Den Dolder for more than 10 years; 15% is employed in Den Dolder.

The results reveal that the level of safety and nuisance has more or less remained stable in comparison with 2006. Nuisance related to youth has virtually disappeared.

The survey results and the qualitative results were congruent. The developments (2005-2007) of top three nuisances show a steady decrease in public drinking and an increase in road safety.

Nuisance related to patients of the psychiatric hospital is mostly limited to the train station of Den Dolder. In the waiting room of the station, patients regularly sit together to smoke tobacco and drink beer. Among the villagers who travel by train, this behaviour induces feelings of being unsafe and of nuisance. To counter the nuisance problems, in 2006 the psychiatric hospital extended its security team to do surveillance tours in the village. The security registration data show that the number of reported incidents related to alcohol use in public space has remained the same in 2007 compared to 2006. In the survey several respondents spontaneously mentioned this service as a valuable contribution to the livability in the village.

**Researchers**

drs C Barendregt (researcher), prof dr H van de Mheen (project leader)

**Term** October 2007 - January 2008

**Financing** Altrecht Mental Health Care, Centrum Maliebaan Addiction Care

**61 Swingers and hepatitis B: sexual risk behaviours and opportunities for prevention****Aim and research questions**

In 2006, IVO conducted a study on the sexual risk behaviours of swingers and opportunities for prevention of hepatitis B. The Netherlands Society of Municipal Health Authorities (GGD-NL) not only wanted the results presented in an IVO-series, but also in a fact sheet. The fact sheet contains the main study results, and is distributed among hepatitis B prevention workers. The fact sheet is entitled: "Swingers and hepatitis B, sexual risk behaviours of swingers and opportunities for prevention".

**Results**

Swingers are heterosexual couples who have erotic contact with other heterosexual couples. Some swinging couples only have sex with their own partner in the presence of other couples, others perform partial or full partner swapping. Swinging often takes place at home or in a couples' sex club. Since hepatitis B is spread through unsafe sex, the aim of the study was to investigate sexual risk behaviours and the risk of becoming infected with hepatitis B. We conducted a literature study and collected new data with an online questionnaire, aimed at members of four (online) swing organizations. Data from 566 individual swingers were analysed with SPSS. The results show that 20% was engaged in swinging for less than year, 40% for 1-3 years, and 40% longer than 3 years. Most of the swinging takes place at home (own home or the other couple's home) and/or in a couples' sex club. Almost all have sex with their own partner during swinging activities. Over 80% engaged in sexual activities with or 2 other persons (besides their own partner). Only 5% of all respondents say that they always have safe sex during swinging, 8 % always uses protection with penetration but not always with oral sex, and the remaining 4% does not always use protection regardless of the activity. Half of the 566 swingers say that they were (ever) tested for hepatitis B, and the respondent was infected. Almost half (46%) is fully or partially vaccinated against hepatitis B and 44% is not vaccinated. Ten percent does not know whether they are vaccinated against hepatitis A or B. In answer to our question: Do you think you will get a vaccine against hepatitis B in the next 6 months? 60% answered maybe, probably or yes. Those with a more positive vaccination intention assess the seriousness of an infection higher than those with a negative intention. Also, those who are afraid that others may find out that they are a swinger and those who do not know where to get the vaccine, find it more difficult to get vaccinated. Since anonymity is important, we asked if the swingers would make a direct and anonymous vaccination appointment through the internet: 74% answered affirmatively. These and other results are presented in an IVO publication (number 46, 2007), and can be downloaded via the IVO website.

**Researchers**

drs A van der Poel (researcher), dr BJB Boon (project leader)

**Term** January 2007 - February 2007

**Financing** Netherlands Society of Municipal Health Authorities (GGD Nederland)

## 62 Nonmedical use of prescription drugs by adolescents and young adults: a pilot study

**Aim and research questions**

In the USA there are alarming reports about the many young people who abuse prescription drugs. Abuse (or nonmedical use) meaning that they use prescription drugs that are not prescribed to them; this abuse is not free of risks. That it concerns prescription medication does not mean that the use is necessarily safe, especially when they are used in combination with alcohol or illegal drugs. Furthermore, the majority of medications (pain killers with opiates, benzodiazepines, ADHD stimulants) are potentially addictive. The aim of the Dutch pilot study is to find out whether nonmedical use of prescription drugs is an issue amongst adolescents and young people. We focused specifically on the use of prescription drugs as if they were illegal drugs, taken for pleasure (not for medical reasons).

**Method**

We conducted an (inter)national scientific literature study, looked into archives of Dutch popular magazines and newspapers, made inquiries among professionals in the healthcare system, and 'talked' to young people on the internet about the topic. Finally, we could put a question in the questionnaire on internet use (Monitor Internet and Youth 2007) that was answered by over 2,000 students (14-17 years old).

**Results**

The North American scientific literature clearly indicates a trend that more and more young people abuse prescription drugs. The percentage that abused prescription drugs in the past year increases from 4% in the early 1990s to 14% around 2004. Ever-abuse is about 21%. It was recently calculated in the USA that the number of young people aged 12+ years that started abusing prescription drugs is higher than the number that started using cannabis (2.7 to 2.1 million people).

The results of the questionnaire show that nonmedical use of prescription drugs also occurs in the Netherlands: 2.4% of the students (up to 17 years old) indicated that they abused prescription drugs in the past year. Most of the abusers take Ritalin (an ADHD stimulant, not prescribed to them) as if it was an illegal drug.

From the literature, the archives and the inquiry among professionals, it becomes clear that in the Netherlands, up till now, little attention has been paid to this type of drug use. On the internet, however, (some) young adults 'speak' freely about dealing and abusing prescription drugs. We conclude that the preliminary data on Dutch prevalence and the fact that young people speak openly about the topic on the internet is alarming, and recommend further research to investigate the situation in the Netherlands (e.g. availability and frequency of use).

**Researchers**

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**Term** January - October 2007

**Financing** Volksbond Foundation Rotterdam (Stichting Volksbond Rotterdam)

## Education: Research and Development

### 63 Advancement of addiction expertise: a training program

#### Aim and research questions

Rapid technological developments in intracranial observation techniques like functional Magnetic Resonance Imaging (fMRI), showing the neurobiological and neurochemical processes in the brain that play a role in the preservation of the behaviour, have increased the scientific knowledge on what addiction is and how it can be treated considerably. Furthermore, knowledge on effective treatment and prevention strategies has increased significantly making it more and more possible for drug treatment organizations and policy makers to work evidence based. As a result scientific insights play a more and more important role in the treatment, prevention and policy of drugs and addiction. The ZON program 'Addiction' aims at increasing scientific knowledge in relevant work areas, thereby improving addiction treatment, prevention and policy. An important instrument for reaching these goals is the academic training of students of relevant disciplines. Until now, education in substance use and addiction has not been embedded structurally in any academic training. The project aims the development and implementation of a modular educational training program for academic student of various (bachelor and master) disciplines.

#### Methods

The module "Addiction and addiction care" is developed to be applicable for both bachelor and master students of various academic disciplines in the Netherlands. Therefore, the module must be adapted each time to the curriculum of training in which it is offered.

The module has eight central themes:

- What is addiction?
- The psychology of addiction
- The neurobiology of addiction
- The sociology of addiction
- Methods of addiction research
- National and international drug policy
- Prevention of addiction
- Addiction care

Part of the training program is the writing and presentation of a research proposal on a drug or addiction related subject. A final part of the module is the visit of drug treatment organization to get a first impression of the work of professionals working in the field of addiction.

#### Results

An educational program was developed in 2004 in various tailored versions. The program was implemented in the curriculum (free choice) for students of the faculty Psychology of the Erasmus University Rotterdam in the year 2004, 2005, 2006 and 2007, and will be implemented again in 2008. Furthermore, a tailored version of the program (Psychology of addictive behaviours) was implemented in the curriculum

for the students of the faculty of Psychology of Maastricht University. Two other shortened tailored versions were developed for the students of the Erasmus MC. The standard program will also be translated into English and implemented in the European Master Health Sciences at Maastricht University. Finally a minor "Addiction" will be developed in collaboration with INHOLLAND University of Applied Sciences. The final result of the project is a standard program offering a theoretical framework, a practical outline, 7 cases, instructions for the writing of the research proposal, instructions for the tutors, and a set of exam questions. The program is available for educational organizations who want to implement a training on drugs and or addiction in the curriculum of their students.

#### Researchers

dr GJ Meerkerk (researcher), dr BJJ Boon (project leader), prof dr H van de Mheen (project leader)

**Term** March 2004 - March 2008

**Financing** Netherlands Organization for Health Research and Development (ZonMw) Advise and Implementation

### 64 Fact sheets: Substance use and gambling in Brabant

#### Aim and method

Novadic-Kentron is the addiction treatment and prevention center of the region of Brabant. Novadic-Kentron wanted to gain insight into the facts and figures of substance use and gambling in their four regions (North East, South East, Mid and West Brabant). IVO put together figures from Novadic-Kentron and the regional Municipal Health Authorities who collect data on, for example, substance use among young people.

#### Results

Four fact sheets were composed, one for each region, with the following titles: 1) Number of clients in treatment for the Netherlands, Brabant, and the specific region, 2) Problem use in the Netherlands, and 3) Problem use in the specific region, when possible divided into urban and rural areas. In each fact sheet a division is made into alcohol, drugs and gambling. Each fact sheet ends with a citation of sources.

#### Researchers

dr L Oliemeulen (researcher), drs A van der Poel (project leader)

**Term** June 2007 - November 2007

**Financing** Novadic-Kentron Addiction Care

## 65 Novadic-Kentron: providing advice for the Region Monitor

### Aim

Novadic-Kentron is the addiction treatment and prevention center in the region of Brabant. Prevention workers of Novadic-Kentron also conduct various types of monitoring research (applied, practice-based). IVO is involved in one of the types of monitoring research that Novadic-Kentron performs: i.e. the Region Monitor.

### Method and results

IVO provides advice on how to conduct the research (methodology, expertise), and is a critical reader of the products that emerge from the monitors. In 2007, IVO provided advice concerning the Region Monitor of Breda, and concerning a study on the needs for housing dual-diagnosis patients in 's Hertogenbosch.

### Researcher

drs A van der Poel

### Term 2007

Financing Novadic-Kentron Addiction Care

## 66 Revision Masterprotocol 'Resultaten Scoren' (Scoring Results)

Manual for the development of protocols and knowledge documents for addiction care

### Aim

The Masterprotocol by Resultaten Scoren is an outline for the development of guidelines and protocols that govern the development of interventions in addiction care. The current version of the Masterprotocol, which has been used extensively in the last decade, is in need of an update/revision. The main goal of the revision is to ensure a better fit with day-to-day operations in the field and with other manuals currently in use.

### Methods

After a brief review of the scientific literature, and after an analysis of a number of core documents, 11 interviews were held with guideline developers who had recent experience in working with the Masterprotocol, end-users of the guideline, and (representatives of) actual clients in addiction care. Furthermore, opinions were gathered from experts in relevant professional organizations, using both individual interviews and a focus group meeting.

### Results

The Masterprotocol has undergone major revision in the following areas:

Increasing usability by including more details and practical information in the manual. Additionally, much simplifying and rephrasing has been done to avoid unclear management wording.

Expanding the manual with the following guidelines:

- Client participation in the development of protocols and guidelines
  - specifically: participation of immigrant clients
  - defining required competences for implementing developed interventions
  - a selection of outcome measures
  - effective implementation of the developed protocols/guidelines
- Fit with the EBRO manual
- Fit with the demands posed by the Ministry of Justice with regards to interventions specifically aimed at prisoners/convicted criminals
- Instructions for updating existing protocols.
- Advice for judging the quality of protocols developed outside of the 'Resultaten Scoren' program.

### Researchers

drs A Snoek (researcher), dr H Jansen (project leader), drs A van der Poel (advisor)

Term March 2007 - June 2007

Financing 'Resultaten Scoren' (Scoring Results)

## 67 Introduction of the national guideline methadone maintenance treatment Establishing national support and benchmark

### Aim

In 2004-2005, the national guideline 'methadone maintenance treatment' was developed to improve treatment of chronic opium dependent patients in outpatient addiction care. Initiator of this guideline was, among others, the Netherlands Health Care Inspectorate, who concluded that methadone programmes in the Netherlands did not reach satisfactory standards and used various methods of working. With the guideline 'methadone maintenance treatment' ready for use, it will be implemented on a national basis. The programme Scoring Results of the Netherlands Society of Mental Health Authorities has asked the scientific institute NISPA and the research institute IVO to support this national implementation. NISPA coordinates processes of Knowledge Development & Implementation, and IVO supervises on Quality Monitoring & Evaluation.

General objective of the project 'Supporting Implementation of the Guideline Methadone Maintenance Treatment' is to bring about national implementation of the guideline methadone maintenance treatment by means of central national support and quality monitoring. Within available timetables, the guideline will be introduced, (partially) implemented, evaluated and, if necessary, adjusted.



### Methods

Support during the implementation process of the guideline methadone maintenance treatment will take place by offering the following services:

- visitation rounds and subsequent advice;
- professional training modules regarding the guideline;
- formats for an agency-bound implementation plan;
- for each participating agency: support by the formation and execution of the implementation plan;
- a short version of the guideline methadone maintenance treatment including a brochure for patients.

### Results

The project has been accomplished according to the study protocol, but due to a lack of finances for implementation of the RIOB, the project was ended in December 2007.

Seven agencies have joined the project, namely Mondriaan Care Group, Parnassia Group, HKPD Vlissingen, TACTUS, IrisZorg, Novadic-Kentron and Mental Health Group North- and Central-Limburg. These agencies have informed their staff about the RIOB. The RIOB is also well known among agencies that are not participating in the project.

By way of development and introduction of supporting materials (i.e. patient information and training modules) the RIOB implementation has been supported. Furthermore, the expertise of the workers has been increased by means of periodical meetings in which experiences and knowledge were exchanged.

The first visitation round took place from April to August 2007. The visitations show that the introduction of the RIOB has resulted in an improvement in quality. Nevertheless, many bottlenecks that were identified in 2005 have not yet been solved.

### Researchers

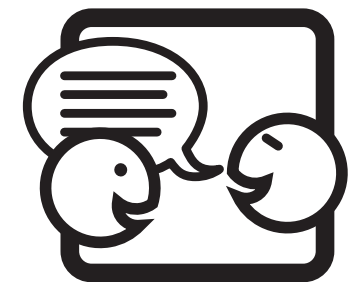
ir EG Wits (researcher), C Loth (researcher, NISPA), prof dr H van de Mheen (project leader), prof dr C de Jong (project leader, NISPA)

**In collaboration with** Nijmegen Institute for Scientist-Practitioners in Addiction (NISPA)

**Term** November 2006 - December 2007

**Financing** Scoring Results, a programme of the Netherlands Society of Mental Health Authorities (GGz NL)

## chapter 4 Education and social services



# Chapter 4

## Education and social services

### Education

Coordination: dr HAM Jansen

- In the third year of the medical curriculum of the Erasmus MC, IVO provided an assignment for self-education on societal consequences of alcohol and drug use.
- In the fourth year of the medical curriculum of the Erasmus MC, IVO provided a course on addiction, which was attended by 60 students (two groups).
- In the Faculty of Social Sciences, IVO provided a five-week full-time program for the third-year curriculum of Psychology: 60 students participated.
- In the Faculty of Policy and Management of Health Care of the EUR, two lectures were given (one for the full-time and one for the evening course) for second-year students as a part of the module 'Socio-Medical Analysis'.
- At Maastricht University contributions were made to the curriculum Health Sciences through lectures, discussion groups and optional courses.
- At the University of Nijmegen contributions were made to the Bachelor's and Master's curricula Pedagogic and Psychology and to the research Master, Behavioural Science.

### IVO Award

Every two years, the IVO provides an international grant on addiction research. The IVO Award aims at stimulating young scientists to conduct high quality research in the field of addiction. The grant is financed by the "Stichting Volksbond Rotterdam" (Volksbond Foundation Rotterdam). The grant is € 10.000 and should be invested in further research and/of further education in this field.

A jury of three international experts in the field of addiction research will judge the nominations/ applications. The composition of the jury changes every two years. In 2006 the winner of the IVO Award was dr Kypros Kypri (School of Medicine and Public Health, University of New Castle, Australia), for his work on alcohol interventions and problem drinking. In 2008 the next IVO Award will be presented.

### Report meetings

For about 20 years IVO has investigated issues of addiction care and its related fields. As a research institute our aim is not only to 'increase' knowledge but also to promote discussion on these topics. One way in which IVO can express its wider social involvement is by organising report meetings. These are held several times a year for all those interested in the various aspects of addiction and addiction care in The Netherlands. In 2007 four report meetings were organized.

#### 1<sup>st</sup> Report meeting. Supported housing for dependent drug users. Evaluation of the project "(z)Onderdak" (March 27 2007)

**Speakers:** Ron van de Bosch (director finance company (Kredietbank Rotterdam), Anneke Zuidervaart (social worker Nico Adriaansstichting), drs Cas Barendregt (IVO).

At this report meeting the results of the research on supported housing were presented, and practical issues and consequences were discussed. Representatives of the funding entities of the project (Municipal Health Authority Rotterdam-Rijnmond and the department of Social Affairs and Employment) were satisfied with the results and emphasized that some meaningful activities during the day is of utmost importance in order to structure the clients' lives. Additional projects for day activities will be developed. To illustrate the finding that many clients in supported housing face administrative difficulties, social worker Anneke Zuidervaart gave a summary of the administrative problems she and her clients have to deal with on a daily basis. A history of addiction may pursue a person long after the time that he or she has stopped the habit. Ron van den Bosch explained what his department does and does not do to sort out the administrative chaos of their clients, to control their individual budgets, and to arrange client's debts. The most serious problems are debts resulting from unpaid fines; the prosecution never agrees to arrange this type of debt.

#### 2<sup>nd</sup> report meeting: Living with an addict. Support of next of kin of addicts (June 14 2007)

**Speakers:** drs Agnes van der Poel (IVO), drs Nicole Verhoeven (Foundation "Coke Van Jou", SCVJ)

This report meeting was organized to present the results of two studies.

The first is the IVO study "Together we stand strong, professional support for next of kin of addicts". In this study, five types of care for these next of kin, organised by five addiction care providers, were evaluated. During this study we started a collaboration with SCVJ, a foundation that supports partners, family and friends of addicts in different ways (e.g. organising open days and self-help groups, family counselling, online support). The results of the second study, the SCVJ project, were also presented: this online study provides insight into the problems and needs of next of kin of addicts.

After the presentations, the attendees (over 40) could follow one of the following workshops: online counselling, former addict tells his story, boxing therapy, or a healing chair massage.

### 3<sup>rd</sup> report meeting: Drug Policy in Mental Health Care Settings (October 9 2007)

**Speakers:** dr Els Noorlander (psychiatrist, Delta Mental Health Care), dr Hans Post (physician, Altrecht Mental Health Care)

Many psychiatric patients are addicted to or want to use substances. Substance use is prohibited in most of Dutch psychiatric and addiction care centers. What are the consequences when this rule is violated? If substance use is seen as a control problem, then repressive measures will be taken. If substance use is seen as a 'treatment issue' (**behandelprobleem**), then the treatment staff will make an individual regulation about the use of alcohol and drugs as part of the individual treatment program. In this seminar several views on this topic were discussed.

The first speaker, Els Noorlander, presented three possible approaches: "wet" divisions (drug use allowed), "damp" divisions (restricted drug use allowed or tolerated) and "dry" divisions (no consent to use drugs). She argues that there are no 'good' or 'bad' drug policies: there is no scientific evidence that supports a restricted or a liberal drug policy in mental health care settings.

The second speaker, Hans Post, finds that the high drop-out rates among his patients speaks for a low-threshold approach, in which complete abstinence is not the main goal. During treatment he decides which (medical) interventions are effective, considering the substance use of the patient.

### 4<sup>th</sup> report meeting: Autonomy and addiction: we make your decision (November 27 2007)

**Speakers:** prof dr Niels Mulder (O3 Research Centre Mental Health Care Rijnmond/ Erasmus MC) and dr Maartje Schermer (Erasmus MC)

On 27 November 2007, IVO organized a seminar on Assertive Treatment ('**bemoeizorg**'). Central theme was the tension between autonomy and assertive treatment, specifically in relation to addiction. Do addicted individuals still have a 'free will' or are they a mindless instrument of their addiction? When is assertive, and unwanted treatment justified? Two speakers presented their vision on this issue: Niels Mulder, psychiatrist and professor Public Mental Health (OGGZ), and Maartje Schermer, physician and philosopher, both from the Erasmus University Medical Center.

Mulder described the history of assertive treatment. In the 1970s a strong emphasis was placed on individual freedom and autonomy, people had a 'right to rot'. Later a counter movement started up which placed responsibility back with society - people who are not able to look after themselves should be looked after by society. Schermer elaborated mainly on the concept and idea of autonomy. She differentiates between first-order desires, the desire to light a cigarette for example, and second-order desires, the control over first-order desires (I will not light a cigarette, because my health matters more to me than the pleasure). Autonomy is achieved when someone really wants what he or she wants, both in first and second order.

Assertive treatment is justified when people are no longer in control of their own actions ('**wilsonbekwaam**'). Addicts are primarily driven by first-order wishes. Nevertheless, Schermer warns us against oversimplification with regards to addiction and autonomy. Somebody who is not in control in some areas of life, does not have to be out of control in all areas. According to Mulder, serious addiction can result in serious disturbances of thinking, feeling, acting, and wanting. When these people also start causing danger in the broad sense of the word, assertive treatment is justified according to Mulder, and in some cases even forced admission. Serious addiction and assertive treatment is a point of considerable debate, because judges and the law in general do not always view it as a serious psychiatric condition. Finally, Mulder points out another recent change in society's attitude towards addicts - extreme self-neglect has become an increasingly acceptable reason for forced admission.

# organisation

chapter 5  
**Organisation**



# Chapter 5

## Organisation

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**Total fte's research in 2007: 29.1**

## Board

The board of the IVO in 2007 consisted of six persons, one member on behalf of the 'Stichting Volksbond Rotterdam' (Volksbond Foundation Rotterdam), one on behalf of the Erasmus MC, one on behalf of the University of Tilburg, two independent member representing the public health sector, and an independent chairman.

The board was composed as follows: dr AG Rijntjes (chairman, independent), prof dr JP Mackenbach (Erasmus MC), mr A Vreeken (Stichting Volksbond Rotterdam), prof dr JAM van Oers (University of Tilburg), mrs drs GJJ Prins (Cogis, knowledge center for victims of war and violence) and drs S Buijs, (health policy expert and advisor), from march 2007.

## Scientific Advisory Board

In addition to the board, the IVO has a scientific advisory board (WAR). It is the role of the WAR to provide substantive advice and reviews. It meets once a year. The WAR consisted in 2007 of the following five members: prof dr MCH Donker (Municipal Health Authority Rotterdam-Rijnmond), dr G Gmel (Swiss Institute for the Prevention of Alcohol and Drug Problems (SIPA), Switzerland), prof dr RTJM Janssen (University of Tilburg), dr S Nordlund (SIRUS, Norway) and prof dr F Sturmans (Erasmus MC, chairman).

## University Research Centres

The IVO participates in several University Research Centres, in which different Universities are involved: the NIHES (Netherlands Institute for Health Science, Rotterdam), Research Institute "Social Safety" (Rotterdam), Tranzo (Research Program Transformation in Care, Tilburg), CaRe (Primary Care Research, Maastricht) and the Behavioural Science Institute (Nijmegen).

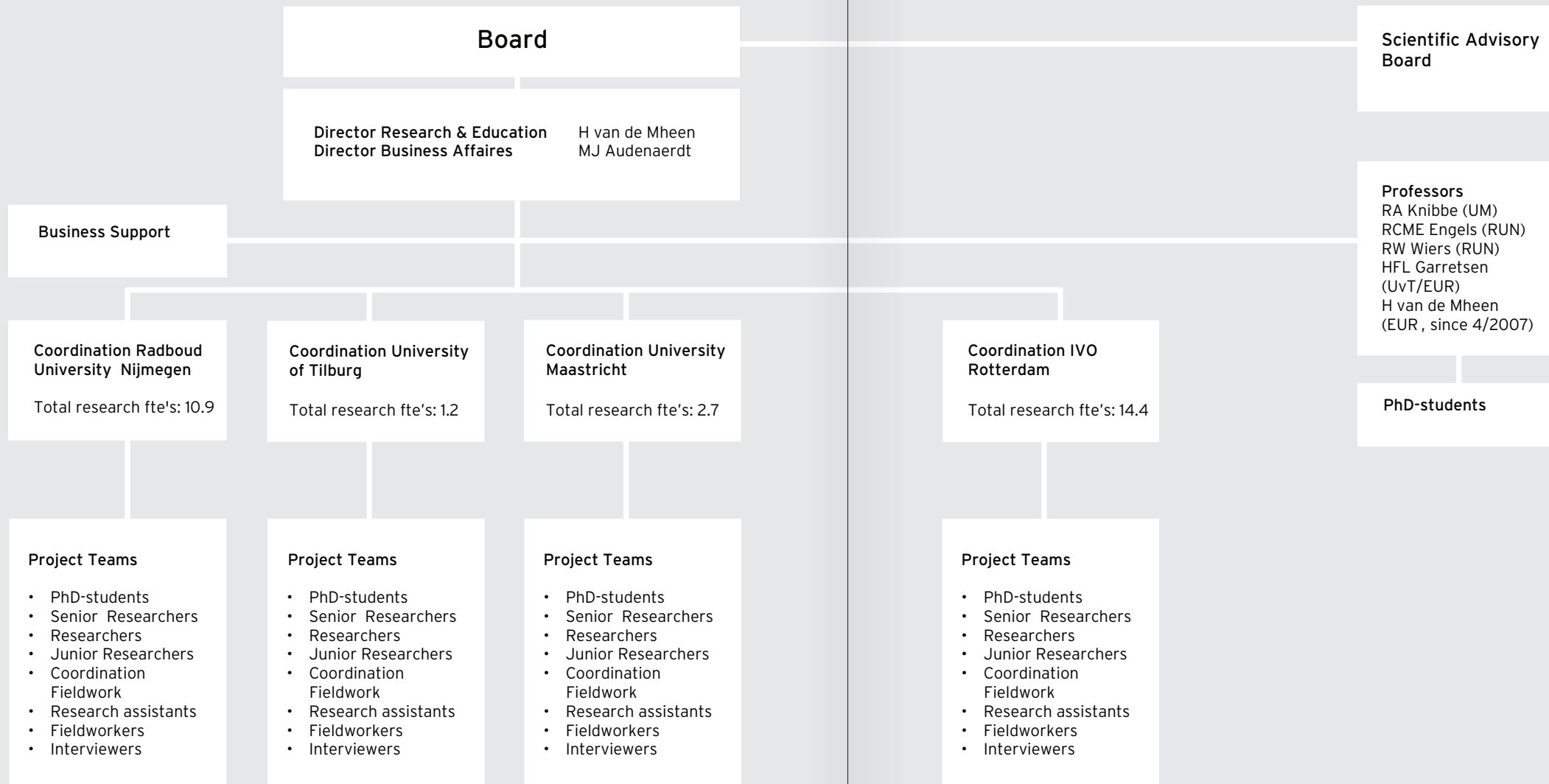
## Cooperative relationships

The IVO organises together with the TADP, AIAR and Trimbos Institute the annual FADO congress (Forum Alcohol and Drug Research).

Internationally the IVO participates actively in a.o. the Kettil Bruun Society for Social and Epidemiological Research on Alcohol, the Addiction Forum, the European Society for Social Drug Research (ESSD), the European Consortium for Alcohol Research Centres, the ECAS Study (European Comparative Alcohol Study) and the EMCDDA (European Monitoring Centre for Drug and Drug Addiction).

Prof dr H van de Mheen is representative of the Ministry of Public Health, Welfare and Sports in the research Platform of the European Pompidou Group. She is also chair of the National Society for Public Health and Science, and member of the board of the Netherlands Public Health Federation. She is member of the board of the Research Institute "Social Safety" and of the board of the Netherlands Congress Public Health.

## Organization chart IVO





# publications

chapter 6  
Publications



## Publications 2007

### International Journals

Ames SL, JL Grenard, C Thush, S Sussman, RWHJ Wiers, AW Stacy (2007). Comparison of Indirect Assessments of Association as Predictors of Marijuana Use Among At-Risk Adolescents. *Experimental and Clinical Psychopharmacology*, 15 (2), 204-218.

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## Dissertations

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