



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

IVO Annual report

2011

IVO

ADDICTION RESEARCH INSTITUTE

ANNUAL REPORT 2011

IVO
June 2012

Heemraadssingel 194
3021 DM Rotterdam
The Netherlands
tel: +31 (0) 10 425 33 66
Email: secretariaat@ivo.nl
Website: www.ivo.nl

Content

1.	Foreword	4
2.	About the IVO	5
	IVO in brief	5
	Organization chart IVO	6
	Vision	7
	Knowledge sharing	9
	IVO Seminars 2011	9
3.	List of projects	12
4.	Project descriptions	15
	Domain Addictive substances	15
	- Alcohol	15
	- Illegal psychoactive substances	41
	- Smoking	50
	Domain Hazardous behaviors	61
	- Internet use	61
	- Gambling	68
	- Risky nutritional behavior	69
	Domain Social relief system and social care	78
	Other	86
5.	Collaboration	91
	Participation in research schools of several universities	91
	External affiliations and representations	91
6.	Organization	92
7.	Publications	95

1. Foreword

We present the Annual Report IVO 2011

The aim of IVO is the acquisition and dissemination of scientific knowledge on lifestyle, addiction, and related social developments. In this way IVO seeks to explore and find solutions for the physical, psychological, and social issues related to various forms of addiction.

Established in 1989 by the Rotterdam Public Health Service (GGD Rotterdam-Rijnmond), the People's Alliance Rotterdam (*Stichting Volksbond Rotterdam*) and Erasmus University Rotterdam, IVO has progressed from a small establishment with three employees to a professional nationwide organization in which about 50 employees collaborate on research into lifestyle, addiction, and related social developments. Since its establishment IVO has aimed to bridge the gap between scientific research and practice. IVO also aims to provide its field with knowledge that can easily be put to practice.

We would like to thank all the organizations and their members, national as well as international, that we have worked together with over the past year. It is inspiring to see how much we can accomplish by collaboration with dedicated colleagues and fellow researchers from various scientific disciplines.

We hope you enjoy reading our annual report and assume that you know how to contact us if you would like more information.

Dike van de Mheen & Miranda Audenaardt
IVO Board of Directors

2. About the IVO

IVO in brief

IVO, scientific bureau for research, expertise, and consultancy

- Active in this research area since 1989
- An independent, small-scale and non-profit-making/autonomous organization
- Has socially sensitive researchers
- Broad and structural collaboration with graduate and research schools resulting in a nationwide alliance of around 50 researchers
- Bringing together various areas of expertise in the field of lifestyle and addiction
- A professional and project-based organization in which the composition of the team of researchers and advisers varies per project

Our mission

The acquisition and dissemination of scientific knowledge on lifestyle, addiction, and related social developments. In this way the IVO seeks to explore and find solutions for the physical, psychological, and social issues related to various forms of addiction.

Our approach

- sound scientific research
- interdisciplinary collaboration
- combination of quantitative and qualitative research
- with an eye for quality and people
- an extensive network covering the areas of substance use treatment and social work
- flexible attitude
- with an eye for applied and policy-based research
- facilitation of the implementation of scientific findings

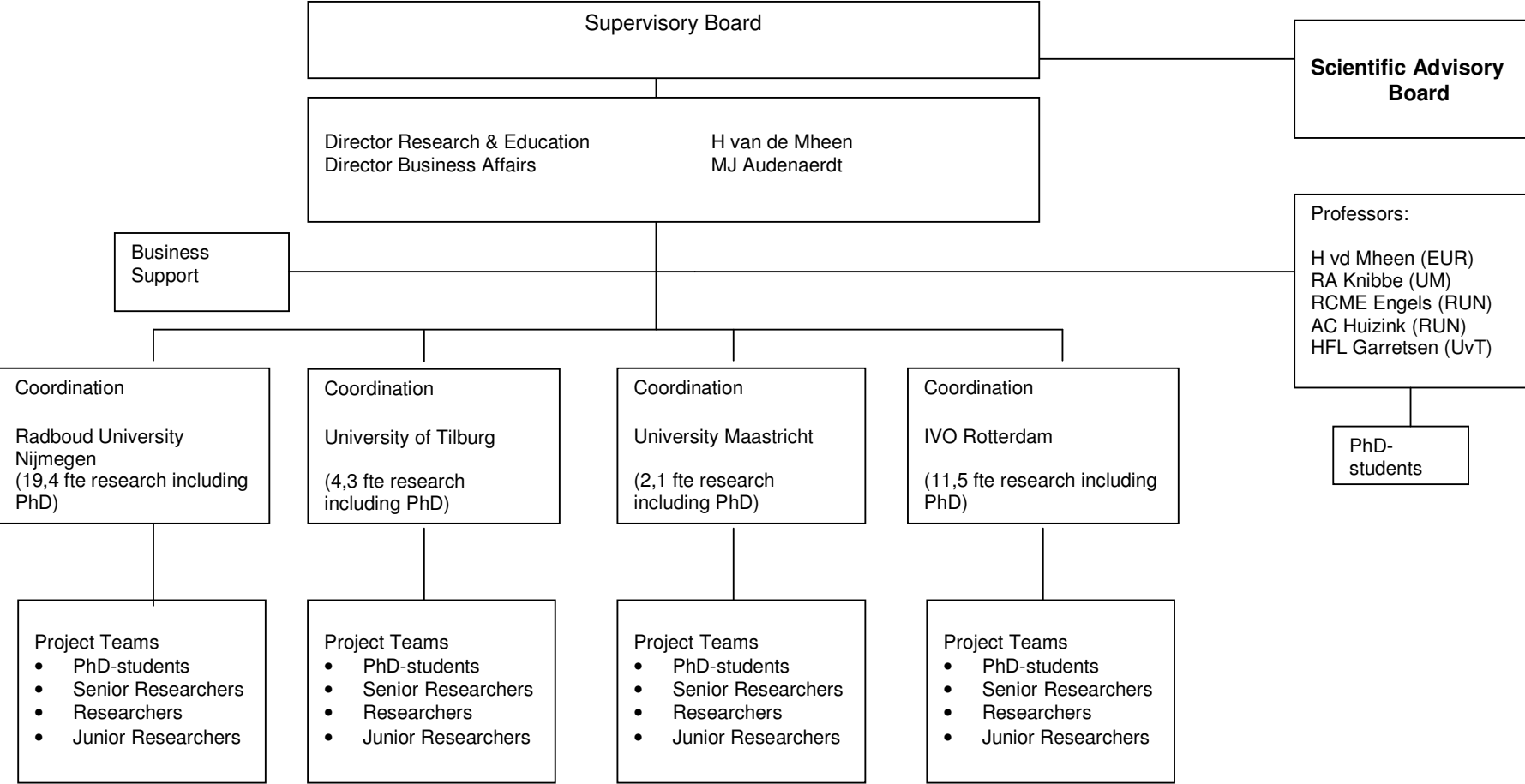
Our services

- Fundamental research
- Applied research
- Policy-based research

Our research themes

- Alcohol
- Illegal psychoactive substances
- Smoking
- Internet use
- Gambling
- Risky nutritional behavior
- Social relief and social care

Organization chart IVO



Supervisory Board

AG Rijntjes PhD (independent chairman)
A Vreeken LLM (representative of the People's Alliance Rotterdam and treasurer)
Prof JP Mackenbach PhD (representative Erasmus Medical Center)
GJJ Prins MSc (independent member)
S Buijs MD (independent member)
P Broedelet LLM (independent member)

Board of Directors

Prof H van de Mheen PhD (Director of Research & Education)
Mrs MJ Audenaardt (Director Business Affairs)

Scientific Advisory Board

Prof F Sturmans PhD (chairman)
Prof RTJM Janssen PhD (Maliebaan Addiction Care/University of Tilburg)
Prof G Gmel PhD (Swiss Institute for the Prevention of Alcohol and Other Drug Problems)
Prof RJ van der Gaag PhD (UMC Radboud University Nijmegen)
Prof T Decorte PhD (Institute for Social Drug Research Ghent University)
O de Zwart PhD (Municipal Health Authority Rotterdam-Rijnmond)

Vision

IVO views addiction as a chronic psychiatric condition and not as a 'moral weakness' of the individual. According to this view, addiction is not only to be dealt with by the individual but by society as well. The aim of IVO is the acquisition and dissemination of scientific knowledge on lifestyle and addiction emphasizing: the specific characteristics of the substance or hazardous behavior, the individual and the environment. The environment refers to the social environment and care, prevention and policy. This means that we gather and disseminate knowledge about:

- the use of specific substances and specific behaviors, with special focus on new substances and behaviors;
- the role of individual factors associated with lifestyles, substance abuse and addiction, such as genetic predisposition and personality traits;
- the role of environmental factors in the development/occurrence, persistence and decrease in hazardous lifestyles, substance abuse and addiction, such as socioeconomic conditions, cultural background, the roles of parents and peers;
- the impact of prevention, care and policy on the prevention of hazardous lifestyles, substance abuse and addiction and (reducing) the adverse effects thereof.

IVO's research focuses on the general population and its subgroups, particularly vulnerable groups, such as people with a high risk of (harmful) substance use and/or related problems. These include youths, young adults and seniors, as well as groups covered by the social relief system and social care, such as homeless individuals. Another vulnerable subgroup that will receive attention in the future are people with a mild intellectual disability (MID).

From a preventive perspective, research on children and adolescents is particularly important. Special attention will be paid to children and adolescents with low socioeconomic status. Research on substance use and hazardous behaviors among children and youths includes genetic research (individual perspective) and environmental research: the roles of parents, school and peers. Furthermore, for new addictions (e.g. internet, gaming and risky eating behaviors) as well as for 'established' addictions (smoking, alcohol, drugs), the development of prevention and treatment methods will be further explored.

The proportion of elderly people (aged over 55 years) in the population is currently almost 30%. The number of elderly people is not only increasing, but their lifestyle is changing. Elderly people today have an unhealthier lifestyle compared with the elderly several decades ago, and are among others consuming more alcohol.

In the last decade, the number of people aged over 55 seeking help for a substance use problem has risen from 4,200 to 10,600. Adjusted for aging of the population, the request for help seems to have doubled. Problems with alcohol and opiates together constitute about 90% of substance use problems in the elderly. However, in all forms of addiction problems, the number of individuals over the age of 55 is increasing.

The study of groups within the social relief system and social care will be conducted from the perspective of social participation and recovery. Following this perspective it is important to obtain the maximum benefit for the individual. To achieve this, effective and high-quality care is needed, which needs to be supported by effective policymaking. Therefore, IVO also studies the functioning of the social relief system and social care. Within this line of research the co-operation between different organizations (integrated care) will receive specific attention. The focus on integrated care is also a recurring issue in the other research domains.

In research, IVO always considers the perspective of the patient or client. We strive, as much as possible, to structurally involve patients and clients in the research cycle.

How do we try to achieve our mission?

IVO attempts to achieve its mission by:

- Carrying out scientific research
- Providing education
- Social service*
- Advice and support with (the implementation of) policy, care and prevention

*With social services, we mean that we offer our expertise (on a not-for-profit basis) to support the social organizations in our field.

Expertise

IVO has many years of expertise in socio-epidemiologic and social science research. Additionally, in recent years experience with neurobiological and genetic research has been gained. IVO has employees from a wide variety of backgrounds, including epidemiology, psychology, sociology, criminology, anthropology and health sciences. This enables us to conduct multidisciplinary research, using both quantitative and qualitative methods.

Our expertise is spread across the IVO offices in Rotterdam, Nijmegen, Tilburg and Maastricht, and includes both fundamental and applied scientific research (including policy-support studies). To achieve our mission IVO adopts an integrated approach, i.e. we study substance use and addiction in conjunction with other problems and other life domains. In this way we can choose multiple viewpoints, such as (public) health and public safety or addiction and psychiatric problems.

Domains

IVO currently focuses on three main domains, which are subdivided according to various addictive substances and hazardous behaviors.

The domains are:

- A) Addictive substances
 - Alcohol
 - Illegal psychoactive substances
 - Smoking
- B) Hazardous behaviors
 - Internet use
 - Gambling
 - Risky nutritional behavior
- C) Social relief system and social care

Research and advice in all domains may pertain to one of the following points of view, or a combination thereof:

- Continuous monitoring of developments and trends
- Determinants: causes and background
- Quality and effectiveness of care and prevention
- Social context and policy

Knowledge sharing

In addition to acquiring scientific knowledge about lifestyle, addiction and related social developments, the objective of IVO is also to transfer and disseminate this knowledge to a wider audience by organizing seminars and developing and implementing educational programs.

Education has always been a core activity of IVO. An outstanding example is the 'IVO Master Class Addiction' which is organized biannually. On a smaller scale, but very popular in the Rotterdam region, are the IVO Seminars which are organized about two times a year (for more information on the IVO seminars see below).

Education about substance use and addiction is structurally embedded in only a few academic programs. However, IVO is committed to stimulate the development and implementation of education about substance use and addiction in various academic settings. In addition to internal training of researchers and supervising interns, IVO realized the following educational activities in 2011:

- Development of the Minor Addiction for third year medical students of Erasmus Medical Centre Rotterdam
- Development and implementation of so-called 'community projects' for the course 'Physician and Public health' for third year medical students of Erasmus Medical Centre Rotterdam
- Organization and implementation of a contribution to the Netherlands Institute for Health Sciences (NIHES) course 'From problem to solution in Public Health' for Master and PhD students from various backgrounds
- Participation in the development and implementation of the module Public Health for the 'Profielopleiding verslavingspsycholoog' (ProVP) (training addiction psychologist) for health psychologists (<http://www.spon-opleidingen.nl/Profiel-opleidingen/Verslavingspsycholoog/>)
- At Maastricht University IVO contributed to the Health Sciences curriculum through lectures, tutorials and elective courses
- At Radboud University Nijmegen IVO contributed to Bachelor and Master curricula of the Pedagogy and Psychology programs, and the Research Master Behavioral Science.

IVO Seminars 2011

Legalizing online gambling in the Netherlands: an opportunity or a threat?

September 20th 2011

Speakers:

C Schrijvers (research coordinator, IVO), BJ ter Heerdt (project coordinator for the Programme for Modernizing Policies on Games of Chance, Ministry of Security and Justice), J Wierda (Manager Security and Legal, Holland Casino)

Introduction

Online gambling is currently illegal in the Netherlands, but the state secretary of Security and Justice has proposed to legalize online gambling by providing permits to providers of online games of chance. These providers would have to meet certain requirements in order to receive this permit. Supporters of these plans emphasize that such a policy gives the government the opportunity to control the online gambling market thereby making her more able to prevent gambling addiction. Opponents, however, argue that legalising online gambling will increase the number of gamblers online and they expect an increase in the number of addicted gamblers. The Addiction Research Institute (IVO) invited three speakers and gave them the opportunity to express their different views on this subject.

Facts and figures

In her presentation, Carola Schrijvers reported some statistics on gambling and gambling addiction in the Netherlands. She showed that about 0.24% (about 32,000 people) of the Dutch population could be considered as a "problem gambler". Problem gamblers are gamblers who are addicted to gambling and are no longer able to control their spending. In general, online gamblers are young single male adults with a relatively high educational level, as compared with gamblers who do not play online.

Moreover, online gamblers tend to use drugs more often than the general population. Schrijvers also showed that about 0.4% of the Dutch population takes part in (illegal) online gambling. Although the absolute number of online gamblers may increase after legalization, Schrijvers does not expect the number of problematic gamblers to rise sharply.

The government's view

Bart-Jan ter Heerdt focused in his presentation on the legal side of the issue. According to Ter Heerdt, the government's main priorities with respect to online gambling are safety and responsibility. The Dutch government has no other choice but to make her own policy concerning online gambling, because it is impossible to regulate online gambling at the European level. At the moment, the Dutch ministry of Security and Justice has made plans to regulate the (currently illegal) online gambling market by providing permits to providers who meet certain standards. These standards will secure the gambler's safety online and provide proper help to those gamblers who are at risk of becoming addicted.

The provider

In her presentation, Janny Wierda focused on the responsibility of providers towards their customers. According to Wierda, Holland Casino aims to gain an optimal profit, for society, instead of a maximum financial profit. In order to achieve that goal, Holland Casino has set up three pillars: registration, monitoring, and intervention. By registering the behaviour of their customers and selecting risk factors (monitoring), Holland Casino identifies gamblers who may be at risk of developing problems with their gambling behaviour. These customers are then educated about the potential addictive dangers of gambling by giving them a hand-out or by inviting them to a conversation with a health professional. Wierda argued that legalizing online gambling will create a lot of potential for Holland Casino and she emphasized that the same three pillars would apply to online gambling.

Discussion

After the three presentations, there was a discussion among the persons present. At first the discussion aimed at the responsibility of the providers towards the users. Later on, it was pointed out that the proposed permit system will create a dilemma. If the demands for gaining the permit are too strict and too invasive for the providers, practically no provider would enter the legal market. On the other hand, if the demands set by the government are too loose, the government would not gain any control over the market. Despite the lively discussions, all people present agreed that legalizing online gambling offers huge potential for the entire market.

Care for homeless youth with severe mental health problems in Rotterdam: well on track and how to proceed?

Seminar November 22nd 2011

Speakers:

C Barendregt (senior researcher, IVO), E Nagtegaal (manager FlexusJeugdplein Rotterdam), H van Wouwe (head of treatment, ASVZ Sliedrecht)

Introduction

Cas Barendregt presented results from the IVO study 'Care for homeless youth with severe problems in Rotterdam: well on track and how to proceed?'. Previous research has shown that a large part of the homeless youth struggle with severe problems such as psychiatric problems, substance use problems and/or mild intellectual disability. IVO has studied the caveats in the care for these vulnerable youngsters. Fifty-five youngsters were followed for a year and professionals who work with these youngsters, were interviewed.

During the year that the youngsters were followed, improvements were seen in some areas of life (such as psychological well-being) but also changes for the worse (such as debts). For some areas (including the area of daytime activities) there were little changes in the situation of these youngsters. Furthermore, it became clear that the professionals have difficulties in dealing with the severe problems of the homeless youth. On the one hand there seems to be a lack of referral possibilities to specialized facilities. On the other hand, the professionals feel the need to improve their knowledge and skills for dealing with this group of youngsters and to motivate them.

The management of the integrated care in Rotterdam is well on track but progress can be made on the effectiveness of the care for these youngsters.

Erik Nagtegaal discussed the improvement of the motivation of homeless youth when they are in a professional care trajectory. His approach is more organizational than methodological. His theorem is that the construction of the *woonzorg* has an influence on the motivation of the youngsters.

Nagtegaal agrees with the conclusion of the IVO that the municipal management for the care is well on its way but that the effectiveness of the care can be improved, with respect to both organization and to the content. FlexusJeugdplein started a project in which all involved parties work together to make the discrepancies between the availability of care and the need for care as small as possible. The first residential care project in which the community and its residents are also involved, is Foyer The Matrix. Youngsters live in independent apartments and their care professionals are just around the corner. By giving a concrete perspective of an independent future after professional care, the care professionals see that the motivation of the youngsters improves and that many treatments are successful. Better aftercare is also possible because youngsters can keep living in the community after their treatment and care is still easily available. Continuity of the relationship between caretaker and caregiver is very important and that is one of the reasons that youngsters do not have to switch caretakers when they move from an adolescent trajectory to an adult trajectory. De Foyer is a good example of project-based collaboration and Nagtegaal strongly recommended to start comparable initiatives.

Hans van Wouwe discussed the Triple-C model. Central to this model is the interaction between the three Cs: client, coach and compassion. The goal is to improve mental health and quality of life of the client. Building an attachment relationship is essential for a successful dialogue between client and coach. By means of this strong relationship clients can work on strengthening their competences regarding self-care, occupation and education, and leisure. The focus is on solving underlying problems and not on the problematic behavior of the client. Problematic behavior is seen as something that needs to be discouraged, not reinforced. The Triple-C model is currently only used with patients with intellectual disabilities with severe psychological and behavioral problems. The underpinnings of the model makes it also applicable for use in the care for homeless youngsters because their problems are highly comparable.

3. List of projects

Alcohol

New in 2011:

- 1 Process evaluation of implementation of the protocol 'Observation, screening and short-term intervention of risky alcohol consumption of youth' (p. 15)
- 2 Process evaluation of a behavioral intervention called 'Alcohol and Violence'(p. 16)
- 3 Testing the effectiveness of "The Healthy School and Substance use in Primary Education" (De Gezonde School en Genotmiddelen Basisonderwijs) (p. 16)
- 4 Implicit cognitions and relapse in alcohol addiction: process and moderators (p. 17)
- 5 Testing "Hou vol: Geen alcohol" (In Control: No Alcohol!), a prevention program for parents and elementary schoolchildren targeted at delaying the age of alcohol onset of Dutch youth (p. 18)

Running in 2011:

- 6 Audience segmentation and social marketing: implications for alcohol interventions for Dutch adolescents aged 12-18 years (p. 19)
- 7 Social marketing techniques in prevention: audience segmentation of older youth (with regard to alcohol)(p. 20)
- 8 AMPHORA: Alcohol measures for Public Health Alliance (p. 21)
- 9 Targeting young drinkers online: The effectiveness of a web-based brief alcohol intervention in preventing excessive drinking patterns among adolescents (p. 22)
- 10 Effectiveness of the treatment of the addiction care clinic SolutionS (p. 23)
- 11 Peer influence revisited: an experimental study on the association between peer influence susceptibility and adolescent alcohol use (p. 24)
- 12 Take it or leave it: prevention of early substance use in adolescence (p. 25)
- 13 The Truman Show: effects of alcohol portrayal in the media on actual alcohol consumption (p. 27)
- 14 Effect evaluation of intensified enforcement of the age ban on adolescent drinking and the additional effect of a community intervention (p. 28)
- 15 Development of automatic and controlled processes with regard to substance use in adolescence (p. 30)

Finished in 2011:

- 16 Predictive value of young people's drinker prototypes: Tests using innovative designs (p. 32)
- 17 Experimental observational studies on peer influence processes and alcohol consumption (p. 33)
- 18 Genes, family environment, and gene-family environment interactions as predictors of adolescent alcohol use (p. 36)
- 19 Social roles and alcohol consumption: a European study (p. 39)

Illegal psychoactive substances

New in 2011:

- 20 Social consequences of alcohol and drug addiction: a state of the art study (p. 41)
- 21 Preventing (problematic) GHB use in the Netherlands (p. 42)
- 22 Stigmatization of substance use disorders (p. 42)
- 23 Integrated Policy Expert Group (p. 43)

Running in 2011:

- 24 Public opinion on substance use and policy measures (p. 44)
- 25 Update of the national guideline methadone maintenance treatment (p. 45)
- 26 Cannabis branch speaking: backgrounds and motivations of (ex-) exploitants in grass cultivation and developments in the Dutch cannabis branch (p. 46)

Finished in 2011:

- 27 National Prevalence Study on Licit and Illicit Substance use 2009 (p. 47)

- 28 Stay a way: an Intervention on drug abuse in juvenile offenders: development and theoretical rationale of ambulant care in a judicial setting (p. 47)
- 29 Anxiety disorders and substance abuse: development of a treatment guideline (p. 48)

Smoking

- Running in 2011:**
- 30 Developing and testing strategies to effectively reach and involve resistant hard-core smokers in tobacco control (p. 50)
- 31 Family characteristics in paediatric asthma outcomes: Test of a biopsychosocial model (p. 51)
- 32 Evaluation of a smoking cessation intervention for parents (p. 51)
- 33 "Smoke-free-kids": test of a smoking prevention program for parents of primary school children (p. 52)
- 34 "Smoke-free-kids": evaluation of a smoking prevention program for parents of asthmatic children (p. 53)
- 35 Media influences on smoking behaviour of youth (p. 54)
- 36 Effects of new laws in the Netherlands aimed at reducing tobacco consumption (p. 55)
- Finished in 2011:**
- 37 Smoking in movies: impact on European youth and policy options (p. 56)
- 38 Shared and non-shared familial influences on smoking behaviour in adolescence (p. 57)

Internet use

- New in 2011:**
- 39 Development of an assessment tool for game addiction in clinical practice (p. 61)
- 40 Quantitative and qualitative study on excessive internet use among adolescents – part of the EU NET ADB study (p. 61)
- 41 Tailored game advice [gameadviesopmaat.nl] (p. 62)
- 42 Internet use within schools: 2006-2011 (p. 63)
- Running in 2011:**
- 43 Development of a course for the prevention of internet- and game addiction, aimed at prevention workers in addiction care (p. 63)
- Finished in 2011:**
- 44 Beyond arousal: a study on the use and abuse of online pornography in the Netherlands (p. 64)
- 45 Neurocognitive aspects of online game addiction: the role of cognitive control (p. 65)
- 46 Monitor Internet and youth: data collection 2009-2011 (p. 65)

Gambling

- 47 ALICE RAP: Addicton and Lifestyles in Contemporary Europe – Reframing Addictions Project (p. 68)

Risky nutritional behavior

- Running in 2011:**
- 48 Environmental determinants of dietary behaviours of children, the IVO Nutrition and Physical Activity Child cohort (INPACT) (p. 69)
- 49 Ethnic differences in overweight and obesity among primary school children in the Netherlands, the IVO Nutrition and Physical Activity Child cohort (INPACT) (p. 70)
- 50 How beauty ideals influence our self-appraisal: effects of media on body image (p. 71)
- 51 Peer influence on food choice and intake in children (p. 72)
- 52 Relationship between parental behaviour and overweight in primary school children in the Netherlands, the IVO Nutrition and Physical Activity Child cohort (INPACT) (p. 73)
- 53 Social Influence on Food Intake (p. 75)

Social Relief system and Social Care

New in 2011:

- 54 Substance misuse and dependency by youth: evaluation of implementation of early detection (p. 78)
- 55 Early detection of substance misuse and dependency by youth: implementation of a guideline (p. 78)
- 56 Client participation in addiction care (p. 79)

Running in 2011:

- 57 Strengths and weaknesses in the care given to clients from homeless shelters in Rotterdam (p. 80)
- 58 Detection of alcohol abuse and psychiatric problems among homeless people (p. 80)
- 59 Cohort study amongst homeless people in Amsterdam, The Hague, Rotterdam and Utrecht (the G4) – Coda-G4 (p. 81)
- 60 Effectiveness of intensive community-based care for persons with complex addiction problems: contribution of specific program components (p. 82)

Finished in 2011:

- 61 Evaluation of pilot project: Family group conference (Eigen Kracht) for former homeless (p. 83)
- 62 Care for young homeless people with severe mental health problems (p. 84)

Other

New in 2011:

- 63 Inventory of cooperation between youth addiction care and youth partnerships (p. 86)
- 64 Effectiveness study Safe, Strong & Onwards (p. 86)
- 65 A pilot study on the effectiveness of the e-learning "Talking with your child" (p. 87)
- 66 Routine outcome measurement (ROM): Community based care (*bemoeizorg*) (p. 88)
- 67 Evaluation of a universal school-based depression prevention program for adolescents (p. 89)

Finished in 2011:

- 68 Victimization among patients with severe mental illness: a nationwide multi-site study (p. 89)

4. Project descriptions

Domain Addictive substances

Alcohol

1 Process evaluation of implementation of the protocol 'Observation, screening and short-term intervention of risky alcohol consumption of youth'

Aim and research questions

In the district South-Holland-South an alcohol-prevention program started in March 2009: '*Verzuip jij je toekomst?!*' The program consists of the pillars Policy & Regulations, Enforcement, and Prevention & Education. Within the pillar Prevention & Education, strengthening of early observations and short-term intervention among high-risk groups is an important element. In April 2010 the protocol 'Observation, screening and short-term intervention of risky alcohol consumption of youth' (Risselada & Schoenmakers, 2010) became available. The Municipal health service Zuid-Holland-Zuid started a pilot in 2011 to test implementation of this protocol in the practice setting of police officers and youth workers.

The present study comprises the process evaluation of this pilot. The aim of the process evaluation is twofold. First, we aim to detect factors that reduce and induce a successful implementation of the protocol in the activities of the community police officers and youth workers. With this information we will make recommendations for the methods of implementation and the protocol itself, during the pilot study. Second, in a systematic way we will collect information on the process of implementation, with the aim to introduce the protocol in other municipalities in the Netherlands.

Methods

The factors that reduce or induce successful implementation of the protocol are categorized into: I) the socio-political context, II) the organizations involved, III) the users of the protocol, IV) the protocol itself, and V) and the methods used to implement the protocol. Data for the process evaluation are collected on several levels and at several points in time. In 2011, information on the situation before implementing the protocol was collected (baseline measurement). In early 2012, a provisional measurement will be performed: The municipal councillor of the three municipalities involved in the pilot will be interviewed. The police officers and youth workers who were trained (end 2011) to use the protocol in their work will also be interviewed. End 2012 the interviews with the policy officers, and the police officers and youth workers will be repeated as a final measurement. Further, the central meeting minutes and the logbook of the project leader of the pilot program will be analyzed.

Results

In spring 2012, a preliminary report will be presented, and end 2012 the final report will be available.

Output

-

Researchers

L Veldhuis MSc (researcher), TM Schoenmakers PhD (project leader)

In collaboration with: Municipal Health Service Zuid-Holland-Zuid

Term: October 2011 - December 2012

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

2 Process evaluation of a behavioral intervention called ‘Alcohol and Violence’

Aim and research questions

‘Alcohol and Violence’ is a new behavioral intervention for persons convicted of an alcohol- induced physical assault, with a high risk of criminal recidivism and who can be categorized as ‘binge drinker’. Aim of the intervention is to prevent recidivism of physical assault by gaining control over aggressive behavior and gaining control over own alcohol use in situations that may lead to aggressive behavior. IVO Addiction Research Institute performs a process evaluation of this intervention. Aim of this evaluation is to investigate whether the intervention is executed properly, if any problems arise during execution of the intervention, and which solutions for these problems can be determined.

Methods

Participants, trainers and other stakeholders are interviewed to investigate: 1) the performance of the intervention, 2) how the intervention is evaluated by the people involved, 3) whether the intervention is performed as described in the manuals, and 4) whether all the preconditions needed to perform the intervention were present. Results of these interviews are analyzed and discussed with the persons involved during a focus group discussion.

Results

Data analysis is in progress. Mid-2012 the final report will be available

Output

-

Researchers

AB Hammink, MSc (researcher), EG Wits, MSc (project leader)

Term: August 2011 - July 2012

Financing: Foundation of Addiction Probation Services (*Stichting Verslavingsreclassering GGZ*)

3 Testing the effectiveness of “The Healthy School and Substance use in Primary Education” (De Gezonde School en Genotmiddelen Basisonderwijs)

Aim and research questions

Although most adolescents start experimenting with alcohol and smoking during the secondary school period, determinants underlying this initiation behaviour are mainly influenced and developed prior to this period. Therefore programs aimed at delaying the usage of alcohol and tobacco are developed for the elementary school. “De Gezonde School en Genotmiddelen Basisonderwijs” is such a program and was developed for groups 7 and 8 of Dutch elementary schools. The aim of this study is to assess the effectiveness of this program.

Methods

The intervention was given in collaboration with three Municipal Health Services (GGDs) in the Netherlands. In September 2011, elementary schools in the working areas of these three GGDs were telephoned and asked if they would participate in the study, involving children in groups 7 and/or 8 of their schools. Seven schools were willing to participate. Randomization took place at school level and was performed by an independent ?researcher ?scholar? before baseline assessment. This resulted in 100 children participating in the experimental condition which included two textbooks (“*Roken*” and “*Alcohol*”), 98 children in the experimental condition which used text with a more narrative design (“*Alcohol & roken, een ander verhaal*”), and 97 children in the control condition. Children were asked to fill out a questionnaire before and after the intervention in November 2011 and May/June 2012, respectively. Passive consent was obtained from the parents.

Results

Data collection is in progress.

Output

-

Researchers

RNH de Leeuw PhD (researcher), M Kleinjan PhD (project leader), prof RCME Engels PhD (project leader)

In collaboration with: Netherlands Institute of Mental Health and Addiction (*Trimbos Institute*)

Term: April 2011 - February 2013

Financing: Netherlands Institute of Mental Health and Addiction (*Trimbos Institute*)

4 Implicit cognitions and relapse in alcohol addiction: process and moderators

Aim and research questions

The goal of this research is to study the role of implicit cognition in relapse in alcohol addiction. Implicit cognitive processes are relatively automatic ways in which people process information. One of these processes is attentional bias. This excessive selective attention for alcohol-related cues reflects high sensitivity for these cues and is related to relapse. The exact process of how implicit cognitions evoke drinking is, however, still unclear. This project will study this process and potential moderators of the process. One probable moderator is working memory capacity (WMC): implicit cognition predicts behaviour better when WMC is low. WMC is low during stress, one of the main predictors of relapse. Therefore, we hypothesize that stress, and possibly negative affect in general, is a moderator as well. Impulsivity, also a predictor of relapse, is linked to WMC and therefore expected to be another moderator. The global hypothesis is that abstinent alcoholic patients have a greater chance to relapse when they are cognitively vulnerable: high on impulsivity and trait anxiety, low in WMC, and highly sensitive to alcohol-related cues.

Methods

The research project consists of four studies. In study 1, potential moderators of the relationship between implicit cognition and relapse are identified as well as proximal causes of relapse that are potentially related to implicit processes, by extensively studying and examining the current literature on this topic. In study 2, alcohol-dependent patients who are currently in treatment are interviewed about their mood and triggers of relapse shortly before a relapse and strong craving episodes. In study 3, vulnerability factors of relapse, among which WMC and implicit cognitions, are measured at the beginning and the end of treatment. After treatment, patients will be followed by Ecological Momentary Assessments (EMA). This relatively new method studies processes in near real-life. Participants are asked to carry around a pocket PC and answer questions and carry out small tasks for a certain number of times per day. The participants will carry the pocket PC for a month and will be contacted 2 months and 3 months after ending of treatment to assess their relapse status. In study 4, all data from the previous studies will be combined to develop a screening instrument that can assess the risk of relapse for an individual patient so that aftercare can be adjusted to the patients' needs.

Results

Study 1 and study 2 are in progress. First results are expected mid-2012.

Output

-

Researchers

M Snelleman MSc (PhD student), Prof H van de Mheen PhD (promotor), TM Schoenmakers PhD (copromotor)

Term: March 2011 – March 2015

Financing: IVO, Erasmus Medical Centre

5 **Testing "Hou vol: Geen alcohol" (In Control: No Alcohol!), a prevention program for parents and elementary schoolchildren targeted at delaying the age of alcohol onset of Dutch youth**

Aim and research questions

The odds of becoming a problem drinker significantly increase for people who have their first drink at a relatively young age. Therefore, it is important to delay this early age of onset with prevention programs for elementary school children. The present research project is a longitudinal randomized controlled trial (RCT) evaluating the effects of a recently developed home-based alcohol prevention program, entitled "Hou vol: Geen Alcohol!".

We expect that children involved in the intervention will be less likely to start drinking than children in the control group. We also expect parents in the experimental group to use more alcohol-specific socialization strategies than parents of the control group.

Methods

After elementary schools in the Netherlands were asked to distribute recruitment letters among sixth grade children (11-12 years old) and their mothers, a total of 1,395 parents and their children gave their informed consent by returning the signed response letter.

A total of 680 mothers with 11-12 year old children will be involved in the experimental group receiving the intervention, and 669 parent-child dyads will participate in the control condition receiving a regular factsheet information brochure on youth alcohol use and the detrimental consequences of alcohol use for children. The home-based intervention program consists of 5 activity modules, which are attractive magazines including information, puzzles, games and quizzes to be completed by the parent and the child together. Mothers and children completed a baseline questionnaire before the start of the intervention. Six months later, directly after the intervention, mother-child dyads completed the first follow-up questionnaire. In addition, mothers and children will complete questionnaires 12 and 18 months after the baseline measurement.

Results

Data collection and analysis are in progress.

Output

Mares SHW, RNH de Leeuw, RHJ Scholte, RCME Engels (2010) Facial attractiveness and self esteem in adolescence. *Journal of Clinical Child and Adolescent Psychology*, 39, 627-637. doi:10.1080/15374416.2010.501292

Mares SHW, H van der Vorst, RCME Engels, A Lichtwarck-Aschoff (2011) Parental problematic alcohol use and alcohol-specific attitudes, alcohol-specific communication and adolescent problematic drinking: An indirect path model. *Addictive Behaviors*, 36, 209-216. doi:[10.1016/j.addbeh.2010.10.013](https://doi.org/10.1016/j.addbeh.2010.10.013)

Mares SHW, H van der Vorst, A Lichtwarck-Aschoff, I Schulten, JEE Verdurmen, R Otten, RCME Engels (2011) Effectiveness of the Home-Based Alcohol Prevention Program "In Control: No Alcohol!": Study Protocol of a Randomized Controlled Trial. *BMC Public Health*, 11, 622. doi:10.1186/1471-2458-11-622

Mares SHW, H van der Vorst, E Vermeulen-Smit, A Lichtwarck-Aschoff, JEE Verdurmen, RCME Engels (2012) Results of the "In Control! No Alcohol" Pilot Study. *Health Education Research*, in press. doi:10.1093/her/cyr081

Mares SHW, A Lichtwarck-Aschoff, WJ Burk, H van der Vorst, RCME Engels (2012) Parental alcohol-specific rules and alcohol use from early adolescence to young adulthood. *Journal of Child Psychology and Psychiatry*, in press. doi:10.1111/j.1469-7610.2012.02533.x

Mares SHW, A Lichtwarck-Aschoff, RCME Engels (2012) Alcohol-specific parenting, adolescent alcohol use, and the mediating effect of adolescent alcohol-related cognitions. Submitted to *British Journal of Health Psychology*.

Researchers

SHW Mares MSc (PhD student), Prof RCME Engels PhD (promoter), H van der Vorst PhD (copromotor), A Lichtwarck-Aschoff PhD (copromotor, Radboud University Nijmegen)

In collaboration with: Netherlands Institute of Mental Health and Addiction (*Trimbos Intitute*),
Radboud University Nijmegen

Term: January 2011-June 2013

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

6 Audience segmentation and social marketing: implications for alcohol interventions for Dutch adolescents aged 12-18 years

Aim and research questions

The aim of this project is to study whether and, if so, how audience segmentation and social marketing (regarding alcohol) can improve the reach of adolescents in prevention and policy. A preparatory study yielded five distinguishing segments.

These segments differ from each other in their values, attitudes and motives regarding alcohol. Moreover, they differ from each other in their alcohol consumption. We aim to study ways in which we can reach adolescents in these different segments, and whether interventions are or can be made more appropriate to adolescents of the two selected segments.

This study focuses on the following research questions;

1. How can we reach adolescents in these segments physically or virtually (via internet, SMS, twitter, etc)? In other words: where (school, free-time locations, sports area, community centre, internet, church, bar/café/disco, etc) can we find these segments. What are the implications of these places for the most efficient way(s) of communication with adolescents in the segments in order to convey the alcohol prevention messages? Which communication channels suit the segments best (e.g. parents, a teacher, peers, a police officer, a sports hero, a movie star, a pop song, bartender)?
2. Can we adjust existing effective interventions or develop new interventions that closely match the characteristics, requirements and needs of adolescents in the two different segments?

Methods

- Phase 1:
- Additional analysis of the quantitative data of the preparatory study.
 - Five focus groups with adolescents from the five segments.
- Phase 2:
- One meeting with experts to select two out of five segments.
- Phase 3:
- Eight focus groups with adolescents from the two selected segments, to establish what motivates adolescents from these segments to consume no alcohol, or to drink alcohol in a responsible way. The focus groups will also identify items for the interventions among adolescents from the two selected segments.
- Phase 4:
- Intervention matrix of existing and recommended alcohol prevention interventions for adolescents aged 12-18 years.
- Phase 5:
- Developing new interventions for adolescents from the two selected segments, or adjusting existing and recommended interventions for adolescents of these segments, using the intervention mapping model.
- Additional:
- A questionnaire (28 questions) is used to determine the alcohol segments of adolescents. These questions are in addition to those in the Youth Monitor (age group 12-18 years) of the three Public Health Services in Brabant. Aim is to establish whether the attitudes, motives and values for alcohol can also be found in other lifestyle behaviors like smoking and substance use, sexual behavior, or healthy weight/overweight.

Results

Based on analysis of the quantitative data from the preparatory study and on focus groups with adolescents from the five segments, we have confirmed the attitudes, values and motives towards alcohol and alcohol use of the five segments.

During an expert meeting two segments were selected for which targeted interventions will be developed. This project is ongoing and results are in progress.

Output

Mathijssen & Van Bon-Martens, et al. (2011). "Jongeren en alcohol: doelgroepsegmentatie op waarden en attitudes (Adolescents and alcohol: audience segmentation on values and attitudes)." TSG (Tijdschrift voor gezondheidswetenschappen) 5: 282-288.

Researchers

MM Janssen (researcher), prof HFLGarretsen PhD (promotor), prof JAM van Oers PhD (promotor), JJP Mathijssen PhD (copromotor, Tilburg University), MJH van Bon-Martens PhD (advisor Regional Health Service)

In collaboration with: Regional Health Service Hart voor Brabant, Tilburg University, department Tranzo, National Institute for Public Health and the Environment, Regional Health Service West-Brabant, Regional Health Service Brabant-Zuid-Oost
Term: November 2010 – November 2014.

Financing: The Netherlands Organisation for Health Research and Development
Regional Health Service Hart voor Brabant

7 Social marketing techniques in prevention: audience segmentation of older youth (with regard to alcohol)

Aim and research questions

The policy of the Dutch Ministry of Health for young adults is aimed at reducing harmful and excessive drinking. This policy is based on the fact that Dutch youngsters drink more, and more frequently, than their European counterparts. Of all Dutch 16-year-olds, 78% drinks alcohol on a regular basis and, as shown in a youth survey of the Regional Health Service (RHS) Brabant-Zuidoost, 70% of all boys and 57% of all girls aged 16-18 years can be defined as 'binge drinker'. Therefore, it is important to prevent excessive alcohol use.

Over the years many preventive interventions have been developed. Most of these interventions are limited in their (long-term) effectiveness. For young adults (16-24 years) a possible explanation is that they are difficult to reach concerning alcohol prevention, since alcohol can be legally obtained, parental influence decreases, and they do not form a homogeneous group. This lack of homogeneity may be caused by differences in attitudes, values and motives regarding alcohol use in this group. Audience segmentation divides audiences into segments that share similar attitudes and behave in similar ways, it allows local authorities and public health organisations to develop communication-strategies, interventions or services that closely match the characteristics, requirements and needs of the different segments. Despite the promising characteristics of audience segmentation it has not been used in the Netherlands for young adults. Therefore, the focus of this project will be on the applicability of audience segmentation for this target group concerning alcohol.

The aims of this project are:

1. To gain insight into the attitudes and values of young adults (16-24 years) towards alcohol.
2. To find ways by which target group segments displaying the most undesirable behaviour can be reached in order to develop target group policy to combat irresponsible consumption of alcohol.
3. To gain insight into the degree to which existing (apparently successful) interventions are in accordance with the insights gained with respect to reaching the target group segments.

The resulting research questions are:

1. Can the audience segmentation tool regarding alcohol be used for young adults?
2. How can we reach the youngsters in these segments physically or virtually (internet, sms, etc)?

3. What are the recommendations for the provision of effective interventions and policies?
4. Which recommendations can be made for further research?

Methods

Expert meetings with fieldworkers, counselors, communication experts, etc. will be held to develop a list with items, concerning subjects as attitudes of young adults towards alcohol. This list (together with information from the literature) serves as input for focus-group interviews with young adults and the development of a questionnaire. Focus-group interviews will be held to get an impression of the youngsters' attitudes towards alcohol and the values behind these attitudes.

With the information from the expert meetings, the focus-group interviews and the literature, a questionnaire will be developed and dispersed among 7500 young adults (16-24 years) in the Brabant-Zuidoost region. The results (i.e. the different segments) and their significance for prevention policy will be presented and discussed in an interactive workshop with experts. In addition, group discussions with the target group will be performed concerning the recognisability of the developed segments and the way youngsters should be reached.

Results

Expected June 2012.

Output

-

Researchers

S Kuiper PhD (researcher), JJP Mathijssen PhD (Tilburg University), P van Nierop MSc (Municipal Health Service Eindhoven), E van de Dobbelsteen (Regional Health Service 'Hart voor Brabant'), Prof HFL Garretsen PhD (promotor)

In collaboration with: Tilburg University, Regional Health Service 'Hart voor Brabant', Municipal Health Service Eindhoven

Term: September 2010 - September 2012

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

8 AMPHORA: Alcohol measures for Public Health Alliance

Aim and research questions

Alcohol measures restricting the availability of alcohol and reducing exposure to alcohol-related cues are seen as the strongest evidence-based interventions to reduce excessive drinking and drinking-related harm. However, analysis of per capita consumption in European countries since 1960 shows a very strong increase in those countries most active in implementing alcohol policy measures (e.g. Scandinavian countries), while countries with no or only minimum alcohol policy measures (e.g. most Mediterranean countries) show a steady decrease in per capita consumption. Our basic assumption is that, besides measures aimed at decreasing consumption (e.g. alcohol control measures), many more developments influencing alcohol consumption in European countries have taken place.

This project aims to identify such developments (e.g. urbanization, emancipation, secularization) and to estimate for groups of countries whether these developments had a stronger impact on changes in per capita consumption than changes in alcohol control measures.

Methods

Ten countries from north, west, south and east Europe participate. All countries gather data on developments in per capita consumption (total and separately for beer, wine and strong drinks) since 1960, as well as developments in the implementation of alcohol control measures and developments in economic (e.g. prices, average income, Gini coefficient), social (e.g. changes in level of education, participation of women in workforce, urbanization) and cultural (e.g. secularization, rates of divorce) parameters. Statistical analysis is done both per country and over groups of countries to identify which factors best model the developments in per capita consumption.

Results

Expected end 2011.

Output:

Contextual Determinants of Alcohol Consumption Changes and Preventive Alcohol Policies: A 12-Country European Study in Progress. *Substance Use and Misuse* 2011, 46, 1288-1303.

Graham K, S Bernards, RA Knibbe, S Kairouz, S Kuntsche, SC Wilsdnack, TK Greenfield, P Diteze, I Obot, G Gmel (2011) Alcohol negative consequences among drinkers around the world. *Addiction*, 106, 1391-1405.

Researchers

prof RA Knibbe PhD (researcher), A Allemanni (supervisor, Florence, Italy), M Derickx (research assistant)

In collaboration with: Agenzia Regionale di Sanità della Toscana (ARS, Italy), University of the West of England (UWE, United Kingdom), Anderson Consultant in Public Health (PANCPH, Spain), Anton Proksch Institut (API, Austria), Azienda Sanitaria Locale della Città di Milano (ASL, Italy), Budapesti Corvinus Egyetem (BCE, Hungary), Central Institute of Mental Health (CIMH, Germany), Centre for Applied Psychology (ZEUS, Germany), Chemisches und Veterinäruntersuchungsamt Karlsruhe (CVUAKA, Germany), Dutch Institute for Alcohol Policy (STAP, Netherlands), Eclectica snc di Amici Silvia Ines (ELECTICA, Italy), European Centre for Social Welfare Policy and Research (ECV, Austria), Generalitat de Catalunya (GENCAT, Spain), Institut za raziskave in razvoj (UTRIP, Slovenia), King's College London (KCL, United Kingdom), Institute of Psychiatry and Neurology (IPiN, Poland), Istituto Superiore di Sanità (ISS, Italy), Asociación Instituto y Red Europea para el Estudio de Factores de Riesgo en la Infancia y Adolescencia (IREFREA, Spain), Liverpool John Moores University (LJMU, United Kingdom), National Institute for Health and Welfare (THL, Finland), Nordiskt välfärdscenter (NVC, Finland), Norwegian Institute for Alcohol and Drug Research (SIRUS, Norway), State Agency for Prevention of Alcohol-Related Problems (PARPA, Poland), Stockholms Universitet (SU, Sweden), Swiss Institute for the Prevention of Alcohol and Drug Problems (SIPA, Switzerland), Technische Universität Dresden (TUD, Germany), Trimbos Institute (TRIMBOS, Netherlands), University of Bergen (UiB, Norway), University of Maastricht (UniMaas, Netherlands), University of York (UoY, United Kingdom), Universiteit Twente (UT, Netherlands)

Term: June 2010 - October 2012

Financing: European Union

9 Targeting young drinkers online: The effectiveness of a web-based brief alcohol intervention in preventing excessive drinking patterns among adolescents

Aim and research questions

The primary aim of the project is to test the effectiveness of a web-based brief alcohol intervention – What Do You Drink (WDYD) – that is specifically aimed at reducing heavy alcohol use among heavy drinkers (aged 18-24 years) in a Dutch sample.

The project addresses three research questions:

1. Does exposure to a web-based brief alcohol intervention reduce heavy drinking, i.e. binge drinking and/or heavy alcohol use among 18-24-year olds, compared to a control group?
2. Are the effects of this web-based brief alcohol intervention moderated by adolescents' sex, age, education level, and drinking status?
3. Do alcohol-related cognitions, such as attitudes, self-efficacy, social norms, and alcohol expectancies mediate the expected intervention effects?

Methods

A two-arm parallel group randomized controlled trial is conducted to test the effectiveness of the web-based brief alcohol intervention among 908 heavy drinking adolescents. Participants are recruited at higher vocational education (HBO) and universities by flyers and social media.

Participants are allocated at random to either the experimental (web-based brief alcohol intervention) or control condition (no intervention).

The primary outcome measure is formulated as the percentage of participants who drink within the normative limits of the Dutch National Health Council for low-risk drinking and thereby not exceeding a mean consumption rate of more than 14 (females) or 21 (men) glasses of standard units alcohol per week and/or drink 5 or more glasses of standard units alcohol on one drinking occasion at least once per week at 1 month and 6 months after the intervention.

Reductions in mean weekly alcohol consumption and frequency of binge drinking are also formulated as primary outcome measures. The secondary outcome measures are based on weekly Ecological Momentary Assessments (EMA), which are regarded as highly valid measures to assess alcohol use and alcohol-related cognitions, and allow a more detailed study of how the intervention effects develop over time.

Results

In progress.

Output

Voogt CV, EAP Poelen, M Kleinjan, LACJ Lemmers, RCME Engels (2011) Targeting young drinkers online: the effectiveness of a web-based brief alcohol intervention in reducing heavy drinking among college students: study protocol of a two-arm parallel group randomized controlled trial. *BMC Public Health* 2011, 11(213).

Voogt CV, H Larsen, EAP Poelen, M Kleinjan, RCME Engels (In press) Longitudinal associations between descriptive and injunctive norms of youngsters and heavy drinking and problem drinking in late adolescence. *Journal of Substance Use*.

Voogt CV, EAP Poelen, M Kleinjan, LACJ Lemmers, RCME Engels (resubmitted) The development of a web-based brief alcohol intervention in preventing heavy drinking among adolescents: An Intervention Mapping approach. *Health Promotion International*.

Researchers

C Voogt MSc (PhD student), Prof RCME Engels PhD (promotor), EAP Poelen PhD (copromotor), BJF Boon PhD (advisor, Trimbos Institute)

In collaboration with: Netherlands Institute of Mental Health and Addiction (*Trimbos Institute*)

Term: January 2010 - January 2014

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

10 Effectiveness of the treatment of the addiction care clinic SolutionS

Aim and research questions

The treatment method of the addiction care clinic SolutionS Centre in Voorthuizen (a combination of the Twelve-Step Minnesota Model and cognitive behavioral therapy) has several specific features, including the possibility of immediate admittance, the assignment of a personal counselor, and an extended after care program. This study aims at evaluating the effectiveness of the treatment for alcohol addiction.

The program's effectiveness is determined by measuring alcohol use versus abstinence in former patients of SolutionS. Apart from measuring alcohol use, we also study factors that might influence treatment success. Such factors include spiritual wellbeing of patients, since this is one of the central factors in the SolutionS treatment program. Additionally, alcohol and drug use within the patient's social network is studied as an important predictor of recovery and abstinence.

Methods

The study focuses on clients with an alcohol problem (possibly in combination with a cocaine problem). The prospective study includes all clients with an alcohol problem entering therapy during a period of two years. Clients are interviewed and fill out questionnaires at entrance and 1 month later at discharge. Follow-up questionnaires are sent out 3 and 12 months after discharge from treatment. Major outcome variable is the success rate, defined as the proportion of clients who reached and maintained abstinence at the final measurement 12 months after discharge from treatment. This rate is compared with success rates from other Dutch clinics.

Results

The first patients were included in January 2010, inclusion stopped in March 2012. Final results will be available in 2013.

Output

Meerkerk GJ, TM Schoenmakers (2011) Clienttevredenheid verslavingskliniek Solutions Voorthuizen, een tussenrapportage

Researchers

GJ Meerkerk PhD (researcher), TM Schoenmakers PhD (project leader)

Term: May 2009 – July 2013
Financing: SolutionS Centre Voorthuizen

11 Peer influence revisited: an experimental study on the association between peer influence susceptibility and adolescent alcohol use**Aim and research questions**

This year, we conducted a study on the effect of drinker prototypes on student's alcohol use. Cross-sectional and longitudinal research has shown that favorable drinker prototypes (i.e., perceptions about the typical drinker) are related to higher levels of alcohol consumption in adolescents and college students. So far, few studies have experimentally tested the causality of this relationship and it is not clear what type of manipulation affects drinker prototypes and drinking levels.

Methods

In an experimental 1-factor design with two levels, we tested the short-term effects of exposing students to either positive or negative stereotypic information about drinkers on their drinker prototypes and actual drinking behaviors. We exposed 192 male and female college students to positive drinker prototype information (drinkers in general were presented as being attractive, sociable and successful), or to negative information (unattractive, unsociable and unsuccessful). Subsequently, participants' levels of alcohol consumption were observed unobtrusively while they were interacting with peers in a naturalistic drinking context, namely a bar lab.

Results

Participants exposed to positive stereotypic information about drinkers reported more favorable drinker prototypes than participants exposed to negative stereotypic information. Multilevel analyses revealed that men's subsequent alcohol consumption in the bar lab was higher in the positive prototype condition than in the negative prototype condition. For women, no prototype effects on alcohol use were found.

These findings underline that drinker prototypes affect actual alcohol use in men and suggest that changing perceptions of drinkers may be a useful tool in alcohol prevention programs.

Output

Teunissen HA, R Spijkerman, H Larsen, K Kremer, E Kuntsche, FX Gibbons, RHJ Scholte, RCME Engels (In press) Stereotypic Information about Drinkers and Students' Observed Alcohol Intake: An Experimental Study on Prototype-Behavior Relations in Males and Females in a Naturalistic Drinking Context. Drug and Alcohol Dependence

Teunissen HA, R Spijkerman, MJ Prinstein, GL Cohen, RCME Engels, RHJ Scholte (In press) Adolescents' Conformity to their Peers' Pro-alcohol and Anti-alcohol Norms: The Power of Popularity. *Alcoholism: Clinical and Experimental Research*

Teunissen HA, R Spijkerman, TM Schoenmakers, KD Vohs, RCME Engels (2011) The Effect of Self Control on Attentional Bias for Alcohol Cues in Male Heavy Drinkers. *Journal of Applied Social Psychology*. DOI 10.1111/j.1559-1816.2011.00800.x

Teunissen HA, CB Adelman, MJ Prinstein, R Spijkerman, EAP Poelen, RCME Engels, RHJ Scholte, (2010) The interaction between pubertal timing and peer popularity for boys and girls: An integration of biological and interpersonal perspectives on adolescent depression. *Journal of Abnormal Child Psychology*, DOI 10.1007/s10802-010-9467-1

Researchers

HA Teunissen MSc (PhD student), Prof MJ Prinstein PhD (copromotor, University of Chapel Hill), Prof RCME Engels PhD (promotor), RHJ Scholte PhD (copromotor), R Spijkerman PhD (copromotor)

In collaboration with: University of Chapel Hill, Dept. of Psychology, North Carolina, USA

Term project: October 2008 – July 2013

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

12 Take it or leave it: prevention of early substance use in adolescence

Aim and research questions

The Healthy School and Drugs (HSD) project is a widely implemented, universal school-based prevention program in the Netherlands. HSD targets youngsters in primary and secondary schools and aims to reduce or limit alcohol, tobacco and marijuana use in adolescence. This four-wave longitudinal project will examine the effectiveness of HSD in a randomized clustered trial. The primary goal is to test whether HSD is effective. That is, does the HSD program lead to postponing or diminishing substance use among Dutch adolescents? A second goal is to examine what the actual active components of HSD are. Are behavioral changes mainly due to the integral working method of HSD or do youngsters also benefit from one specific component, namely the electronic learning modules? The final goal is to investigate how possible behavioral changes come about. Are increased knowledge, better refusal skills, or changed attitudes towards substance (ab)use (partly) accountable for these effects? Answers will be given based on these mediating analyses.

Methods

The objective of the study is to test the e-learning modules and the integral package of the HSD program. The e-learning modules of HSD concern three modules: alcohol (4 lessons), tobacco (3 lessons), and marijuana (3 lessons). Students can work through the lessons independently and at their own pace. The lessons focus on knowledge, attitude and behavior.

The integral package of HSD consists of four major pillars, these are: the e-learning modules, parental participation, a school regulation which addresses substance use, and skill training in signaling and guiding problem users. The parental participation refers to a parental meeting at the school and written information about substance use sent to all parents. The third pillar asks schools to incorporate school regulation on substance use among adolescents and employees. The final pillar concerns a protocol on how to deal with problem users. In addition, employees receive professional development on this subject. The project starts in the first year of secondary education. Schools will be randomly assigned to one of the following conditions: (1) e-learning (2) integral, or (3) regular curriculum.

To test the program all students fill out a questionnaire on four occasions (January/March 2009, September/November 2009, September/November 2010, and September/November 2011). Youngsters will be questioned about actual use of alcohol, tobacco and marijuana, and about their attitudes, self-efficacy, social influences, etc.

Results

All four waves have been conducted and the following papers were published in 2010 and 2011.

One paper is currently being resubmitted (topic: Do Substance Use Risk dimensions predict the onset of substance use in early adolescence? A variable- and person-centered approach). At the moment the effectiveness papers are in progress, as is a third paper on the substance use risk profiles scale and substance use in early adolescence.

In the first paper we examined whether anxiety sensitivity, hopelessness, sensation seeking, and impulsivity (i.e., revised version of the Substance Use Risk Profile Scale) would be related to the lifetime prevalence and age of onset of alcohol, tobacco, and cannabis use, and to polydrug use in early adolescence.

Baseline data of a broader effectiveness study were used from 3,783 early adolescents aged 11-15 years. Structural equation models showed that hopelessness and sensation seeking were indicative of ever-used alcohol, tobacco or cannabis and for the use of more than one substance.

Furthermore, individuals with higher levels of hopelessness had a higher chance of starting to use alcohol or cannabis at an earlier age, but highly anxiety sensitive individuals were less likely to start using alcohol use at a younger age. Early adolescents who report higher levels of hopelessness and sensation seeking seem to be at higher risk for an early onset of substance use and poly substance use.

The second paper describes the design of a randomized clustered trial that evaluates the effectiveness of a school-based prevention program: "The healthy school and Drugs program".

In the third paper we examined precursors of marijuana use in a sample of 1,023 Dutch early adolescents (aged 11-14 years at Time 1) who were never-marijuana user at baseline, by applying a 3-wave longitudinal design.

The Theory of Planned Behavior (TPB) was used as a theoretical framework and posits that marijuana-specific cognitions (i.e., positive and negative expectancies, evaluative attitude, social approval, and self-efficacy) are antecedents of marijuana use and that this relationship is mediated by the intention to start using marijuana. In accordance with these premises, our results indicated that evaluative attitude, social approval, and self-efficacy at Time 1 are related to marijuana use at Time 3 (20-month follow-up) via the intention to start using marijuana at Time 2 (8-month follow-up). More specifically, more positive marijuana attitudes, more approval from the social environment, and lower self-efficacy were related to marijuana use initiation through a stronger intention to start using marijuana.

Output

Malmberg M, GJ Overbeek, K Monshouwer, J Lammers, WAM Vollebergh, RCME Engels (2010) Substance use risk profiles and associations with early substance use in adolescence. *Journal of Behavioral Medicine*, 33, 474-485

Malmberg M, GJ Overbeek, M Kleinjan, AA Vermulst, K Monshouwer, J Lammers, WAM Vollebergh, RCME Engels (2010) Effectiveness of the universal prevention program 'Healthy School and Drugs': Study protocol of a randomized clustered trial. *BMC Public Health*, 10, 541

Malmberg M, GJ Overbeek, AA Vermulst, K Monshouwer, WAM Vollebergh, RCME Engels (2011) The theory of planned behavior: Precursors of marijuana use in early adolescence? *Drug and alcohol dependence*

Researchers

M Malmberg MSc (PhD student), J Lammers MSc (project leader, Trimbos Institute), M Kleinjan PhD (copromotor), AA Vermulst (advisor, Radboud University Nijmegen), GJ Overbeek PhD (advisor, Utrecht University), K Monshouwer PhD (advisor, Trimbos Institute), Prof RCME Engels PhD (promotor), Prof WAM Vollebergh PhD (promotor, Utrecht University)

In collaboration with: Netherlands Institute for Mental Health and Addiction (Trimbos Institute), Utrecht University, Radboud University Nijmegen

Term: June 2008 - Medio 2013

Financing: Ministry of Health, Welfare and Sport (VWS)

13 The Truman Show: effects of alcohol portrayal in the media on actual alcohol consumption

Aim and research questions

To test the effects of alcohol portrayal in films, soaps and advertisements on actual drinking behaviour of young people. Specifically, we investigate whether individuals imitate drinking of characters on screen and whether they are inspired to drink when confronted with alcohol cues.

Further, we examine whether identification with characters and genetic susceptibility for alcohol cues affect the magnitude of imitation.

Methods

Experimental observational methods in naturalistic settings are used to test our hypotheses. Most experiments are conducted in a bar lab or living room lab at the Radboud University Nijmegen. This bar lab is situated in a room furnished as an ordinary small pub, with a bar and stools, tables and chairs, indoor games, and comfortable couches. Respondents know that they are observed.

Results

The first experiment examines the direct effects of television commercials advertising soda on actual sugar-sweetened soda consumption among young women.

Results indicated that participants assigned to the condition with soda commercials consumed 1.3 ounces more soda than participants in the water commercial condition. Exposure to soda commercials while watching a movie can have a strong influence on increasing sugar-sweetened soda consumption in young women.

The second experiment assesses the effects of movie alcohol portrayal on alcohol consumption of young adults while watching. Assignment to movie alcohol increased alcohol consumption during the movie for men but not women.

Identification and weekly alcohol consumption did not moderate the relation between movie condition and alcohol consumption. We concluded that exposure to alcohol portrayals in a movie can directly influence alcohol consumption in young men.

The third experiment examined the effects of alcohol commercials in movie theatres on alcohol consumption of young adults while watching.

Alcohol consumption of high weekly alcohol drinkers was higher in the alcohol commercial condition than in the non-alcohol commercial condition, whereas no differences were found in alcohol consumption between commercial conditions for low weekly alcohol drinkers. No sex differences were found in the association between exposure to alcohol commercials, weekly drinking and alcohol use. We conclude that exposure to alcohol commercials prior to a movie in the movie theatre can directly influence alcohol consumption in high weekly alcohol consumers.

The fourth study examined whether young people imitate actors sipping alcohol on screen. In addition, we investigated cue-specific and individual-specific factors related to responding to alcohol cues. The findings showed that participants were more likely to sip in accordance with the actors' sipping than without such a cue. This indicates the existence of an imitation process. Further, we found that men were more likely to imitate actors' sips than females, and that participants tended to respond to actors' sips in the beginning of the movie rather than at the end of the movie.

The fifth experiment assessed the effects of TV alcohol advertising on alcohol consumption of young adults while watching a movie. Assignment to the alcohol advertisement condition did not increase alcohol consumption. In addition, no moderating effects between advertisement condition and the individual factors on alcohol consumption were found. Viewing alcohol advertising did not lead to higher alcohol consumption in young men while watching a movie. However, more research is necessary before strong conclusions can be drawn.

In a review we provided an overview of the literature on movie alcohol portrayal and alcohol consumption in young people. Further we discussed the current status and future challenges in this field.

Output

Koordeman R, DJ Anschütz, RB van Baaren, RCME Engels (2010) Exposure to soda commercials affects sugar-sweetened soda consumption in young women: An observational experimental study. *Appetite*, 54: 619-22

Koordeman R, DJ Anschütz, RB van Baaren, RCME Engels (2011) Effects of alcohol portrayals in movies on actual alcohol consumption: an observational experimental study. *Addiction*; 106: 547-54

Koordeman R, DJ Anschütz, RCME Engels (2011) Exposure to alcohol commercials in movie theaters affects actual alcohol consumption in young adult high weekly drinkers: an experimental study. *American Journal on Addictions* 20; 285-91

Koordeman R, EN Kuntsche, DJ Anschütz, RB van Baaren, RCME Engels (2011). Do we act upon what we see? Direct effects of alcohol cues in movies on young adults' alcohol drinking. *Alcohol & Alcoholism*; 46; 393-8

Koordeman R., DJ Anschutz, RCME Engels (submitted). Alcohol portrayals in movies, music videos and soap operas and alcohol use of young people: current status and future challenges *Alcohol & Alcoholism*

Engels RCME, R Koordeman (2011) Commentary on Meier: Do alcohol portrayals in movies and commercials directly affect consumption? *Addiction*, 106: 472-473

Researchers

R Koordeman MSc (PhD student), DJ Anschütz MSc (advisor, University of Amsterdam), R van Baaren PhD (copromotor, Radboud University Nijmegen), Prof RCME Engels PhD (promotor), Prof RWHJ Wiers PhD (advisor, University of Amsterdam), Prof J Sargent PhD (advisor, Dartmouth-Hitchcock Medical Centre)

In collaboration with: Radboud University Nijmegen, University of Amsterdam, Dartmouth-Hitchcock Medical Centre.

Term: March 2008 – March 2013

Financing: Netherlands Organization for Scientific Research (NWO)

14 Effect evaluation of intensified enforcement of the age ban on adolescent drinking and the additional effect of a community intervention

Aim and research question

The intervention that is evaluated aims to decrease the alcohol consumption of adolescents by: (a) intensified control of sellers' compliance with the law forbidding to sell alcohol to adolescents younger than 16 years, and (b) by a community intervention aimed at mobilizing support among relevant civil servants, professionals and parents of adolescents for measures restricting opportunities for adolescents to drink and to get drunk.

The intensified control of compliance of sellers with relevant alcohol laws will be carried out by the national organization responsible for inspecting the compliance with these laws: the Food and Consumers Product Safety Authority (FCPSA). This organization issues warnings and a seller is fined if compliance is insufficient. There will be a two-year period in which relevant sellers in a region will be visited about 8 times by inspectors of the FCPSA. In a control region there will be only one exploratory inspection (not followed-up by warnings and fines) in this period to identify the relevant sellers in the control region.

The community intervention is supported by the Dutch Institute for Alcohol Policy (STAP). In this context media advocacy aimed at the local media is used, a training course to increase expertise of relevant civil servants and professionals is given, and a support group of parents who develop initiatives both at home and in the public sphere is instituted.

The increased enforcement and the concrete additional measures in the context of the community intervention are planned for a period of 2 years.

Methods

The interventions are evaluated by following a cohort of adolescents, one of their parents, and sellers of alcohol. The cohorts of adolescents, the parents and sellers of alcohol are recruited from three regions: one with no intervention, one with (only) intensified control of sellers, and one region with both intensified control and a community intervention. At baseline the adolescents are aged 13-15 years. They are interviewed before the start of the intervention, and at 1 and 2 years after the intervention(s) have started.

Parents and sellers of alcohol are interviewed before the intervention and again 2 years later.

Results

In November 2011 the third and last measurement of the adolescents took place. At the same time the second and last measurement among parents of these adolescents took place.

The results of the last measurements will be used to evaluate the effect of intensified enforcement (one of the 3 communities) and intensified enforcement + community intervention (another of the 3 communities). First reports to each of the three communities are planned for April 2012. It is expected that a more elaborate effect evaluation will be available by September 2012 and a process evaluation by October 2012.

On the basis of the measurements among the adolescents two articles have been published. One article concerns the predictive power of motives for drinking.

The article shows for the first time that motives do (longitudinally) predict adolescent drinking, even when controlling for previous consumption, previous motives and other relevant variables.

A remarkable outcome is that social motives for drinking (rather than enhancement or coping motives) most strongly predict increases in alcohol consumption of Dutch adolescents. This indicates that environmental social influences are most important for understanding the increase in adolescent alcohol consumption. The article was published in 2011 in *Addiction*.

Another article concerns the combined effect of pubertal and psychosocial timing and alcohol-specific rules of parents on adolescent alcohol consumption. It appears that alcohol-specific rules of parents are mostly adjusted to pubertal and psychosocial timing rather than that parental rules modify the effect of pubertal and psychosocial timing on drinking. The article was published in 2011 in the *Journal of Youth and Adolescence*.

A third study investigated whether the effect of early pubertal timing on alcohol initiation is mediated by reductions in parental alcohol-specific rule setting and/or increases in proportions of drinkers in the peer group. This hypothesis was indeed confirmed. The manuscript describing the results of this study is currently under review.

Furthermore, the effect evaluations were conducted in 2011, resulting in three submitted manuscripts. In both intervention communities, weekly drinking adolescents showed to be at significantly reduced risk to initiate drunkenness. All effect articles are currently under review.

Output

Schelleman-Offermans K, RA Knibbe, M Derickx (2009) *Drankgebruik en wat ouders ervan vinden: jongeren van 13-15 jaar in Arnhem*. Rapport Universiteit Maastricht

Schelleman-Offermans K, RA Knibbe, M Derickx (2009) *Drankgebruik en wat ouders ervan vinden: jongeren van 13-15 jaar in Amersfoort*. Rapport Universiteit Maastricht

Schelleman-Offermans K, RA Knibbe, M Derickx (2009) *Drankgebruik en wat ouders ervan vinden: jongeren van 13-15 jaar in Emmen*. Rapport Universiteit Maastricht

Schelleman-Offermans K, RA Knibbe (2009) *Aanpak drankgebruik van jongeren: meningen van ouders, verstrekkers en professionals uit gemeenten en gezondheidszorg; een onderzoek in drie Nederlandse gemeenten*. Maastricht: Maastricht University

Schelleman-Offermans K, RA Knibbe, M Derickx (2010) *Ontwikkelingen in drankgebruik, drinksituaties en verkrijgbaarheid van drank bij jongeren in Emmen: Resultaten van de tweede meting*. Maastricht: Maastricht University

Schelleman-Offermans K, RA Knibbe, M Derickx (2010) Ontwikkelingen in drankgebruik, drinksituaties en verkrijgbaarheid van drank bij jongeren in Amersfoort: Resultaten van de tweede meting. Maastricht: Maastricht University

Schelleman-Offermans K, RA Knibbe, M Derickx (2010) Ontwikkelingen in drankgebruik, drinksituaties en verkrijgbaarheid van drank bij jongeren in Arnhem: Resultaten van de tweede meting. Maastricht: Maastricht University

Schelleman-Offermans K, RA Knibbe, M Derickx (2011) Ontwikkelingen in drankgebruik, drinksituaties en verkrijgbaarheid van drank bij jongeren in Amersfoort: Resultaten van de derde meting. Maastricht: Maastricht University.

Schelleman-Offermans K, RA Knibbe, M Derickx (2011) Ontwikkelingen in drankgebruik, drinksituaties en verkrijgbaarheid van drank bij jongeren in Emmen: Resultaten van de derde meting. Maastricht: Maastricht University

Schelleman-Offermans K, RA Knibbe, M Derickx (2011) Ontwikkelingen in drankgebruik, drinksituaties en verkrijgbaarheid van drank bij jongeren in Arnhem: Resultaten van de derde meting. Maastricht: Maastricht University

Schelleman-Offermans K, E Kuntsche, RA Knibbe (2011) Associations between drinking motives and changes in adolescents' alcohol consumption: A full cross-lagged panel study. *Addiction*, 106, 1270-1278

Schelleman-Offermans K, RA Knibbe, RC Engels, WJ Burk (2011) The Effect of Pubertal and Psychosocial Timing on Adolescents' Alcohol Use: What Role Does Alcohol-Specific Parenting Play? *Journal of Youth Adolescence*, 40, 10, 1302-1314

Researchers

K Schelleman-Offermans MSc (PhD student), M Derickx (research assistant), Prof RA Knibbe PhD (promotor), Prof H van de Mheen PhD (promotor), Prof RCME Engels PhD (promotor)

In collaboration with: Dutch Institute for Alcohol Policy (*STAP*), Food and Consumers Product Safety Authority

Term: January 2008 – January 2012

Financing: Netherlands Organization for Health Research and Development (*ZonMW*)

15 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 problematic 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 become 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

A total of 400 adolescents participated in this longitudinal study (three waves, with six-month intervals).

Subjects performed computer tasks which assess both appetitive and control processes at wave one and wave three. Examples are, for instance, the implicit association test and the self-ordered pointing task (working memory).

Furthermore, subjects filled in questionnaires regarding, for example, attitudes towards alcohol and alcohol expectancies. Saliva samples are collected to identify genetic polymorphism associated with alcohol.

Results

Associations between alcohol cognitions and alcohol use were tested in two studies with 10-year-olds (Study 1; N=99) and 11-12 year olds (Study 2; N=35). Furthermore, the role of parental alcohol use was examined. Implicit alcohol cognitions were assessed in an Implicit Association Test (IAT) using pictures of alcohol and soft drinks as target stimuli, and happy versus angry faces as attribute stimuli (children's faces in Study 1, adults' faces in Study 2).

Explicit expectancies and parental alcohol use were assessed with questionnaires. Children demonstrated a relatively stronger association between alcohol and negative facial expressions, and in Study 2, this association was negatively related to alcohol use. In Study 2, paternal drinking was related to implicit negative associations and explicit arousal associations. These studies show that young children have both implicit and explicit alcohol-related cognitions and both appear to play a role in explaining emerging alcohol use of elementary schoolchildren.

Research has shown a bi-directional relation between alcohol use and sleep regulation in adults. Much less is known about this association in early adolescents, while profound puberty-dependent transitions regarding sleep patterns take place in early adolescence. Moreover, puberty has been associated with an increase in alcohol use of adolescents.

In this study, we investigated the associations between pubertal development, sleep preference, sleep problems, and alcohol use in 431 early adolescents (mean age: 13.66 years).

Second, it was studied whether the associations changed when controlling for adolescent internalizing and externalizing problems. Furthermore, we included gender as a moderator on all the associations. Results showed that pubertal development was positively associated with sleep problems and more evening-type tendencies (e.g., favoring later bedtimes), which in turn were positively related to alcohol use. Underlying psychopathology, gender and educational level did not change these relationships. From this study, it can be concluded that both puberty and sleep regulation are important factors in explaining alcohol use in early adolescence.

Output

Pieters S, WJ Burk, H van der Vorst, RW Wiers, RCME Engels (in press) The moderating role of working memory capacity and alcohol-specific rule-setting on the relation between approach tendencies and alcohol use in young adolescents. To appear in *Alcoholism: Clinical and Experimental Research*.

Pieters S, H van der Vorst, WJ Burk, TM Schoenmakers, E van den Wildenberg, HJ Smeets, E Lambrichts, M Field, RCME Engels, RW Wiers (2011) The effect of the OPRM1 and DRD4 polymorphisms on the relation between attentional bias and alcohol use in adolescence and young adulthood. *Developmental Cognitive Neuroscience*, 1, 591-599

Pieters S, H van der Vorst, RW Wiers, RCME Engels (2010) Puberty-dependent sleep regulation and alcohol use in early adolescents. *Alcoholism: Clinical and Experimental Research*, 34, 1512-1518

Pieters S, H van der Vorst, RCME Engels, RW Wiers (2010) Implicit and explicit cognitions related to alcohol use in children. *Addictive Behaviors*, 35, 471-478

Pieters S, H van der Vorst, RCME Engels, RW Wiers (2008) Bewusteloos? Automatische en gecontroleerde processen in relatie tot alcoholgebruik bij jongeren. *Verslaving*, 4, nummer 1

Pieters S, CS van der Zwaluw, H van der Vorst, RW Wiers, HJ Smeets, E Lambrichts, WJ Burk, RCME Engels (resubmission) The moderating effect of alcohol-specific parental rule-setting on the relation between the dopamine D2 receptor gene, the mu-opioid receptor gene and alcohol use in young adolescent

Lochbuehler K, JS Sargent, RHJ Scholte, S Pieters, RCME Engels (resubmission) Influence of smoking cues in movies on explicit smoking cognitions and implicit associations towards smoking among children: Two experimental studies

Vorst H van der, M Krank, RCME Engels, S Pieters, WJ Burk, S Mares (resubmission) The mediating role of alcohol-related memory associations on the relation between parental drinking and the onset of adolescents' alcohol use

Creemers DHM, RHJ Scholte, RCME Engels, S Pieters, RW Wiers (resubmission) Acute Stress is Related to Increases in Implicit Depression and Decreases in Implicit Self-Esteem. Journal of Experimental Psychopathology

Researchers

S Pieters MSc (PhD student), H van der Vorst PhD (advisor), Prof RCME Engels PhD (promotor), Prof RWHJ Wiers PhD (promotor, University of Amsterdam, IVO/Radboud University Nijmegen, until 01-08-2008)

Term: February 2007 - June 2012
Financing: Radboud University Nijmegen

16 Predictive value of young people's 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 salient social images of the type of people of 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 and the direction of the relationship between these two variables. The aim of the present project is to examine the true value of prototypes in predicting actual alcohol use among young adults.

The study addresses the following questions:

- 1) Are young people's drinker prototypes related to their actual drinking behaviour in a social drinking context?
- 2) Are drinker prototypes affected by other people's image and drinking behaviour in a social drinking context?
- 3) Can (un)favourable information about drinkers affect college students' drinker prototypes and subsequently their alcohol intake in a naturalistic drinking setting?
- 4) What is the relative contribution of implicit en explicit measures of drinker prototypes to the explanation of young people's drinking behaviour?

Methods

Observational studies among weekly drinking students are conducted in a bar lab. Drinker prototypes are manipulated by using confederates (assistants collaborating in the study) or providing positive/negative information about drinkers. In addition, we developed implicit measures to assess drinker prototypes in a less obtrusive way.

Results

The first study was carried out 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 behaviour.

Participants' actual drinking behaviour was observed during a break in the bar lab. Findings showed that students' drinker prototypes were related to their observed drinking behaviour, over and above the impact of their group of friends.

The second study aimed to test whether young people's drinker prototypes would be affected by social interaction with another person who showed a specific drinking pattern (not drinking versus heavy drinking) and appearance (desirable versus undesirable).

To manipulate the other person's image and drinking behaviour, we used confederates who were instructed to dress either in a desirable or an undesirable way and to engage in non-drinking or heavy drinking.

Findings showed that participants (n=68) held more favourable abstainer prototypes after social interaction with a heavy drinking model with an undesirable appearance.

In a third study we manipulated drinker prototypes in 192 college students by providing positive or negative information about drinkers, and subsequently assessed whether the changes in drinker prototypes resulted in increased alcohol intake in a social drinking setting.

Results indicated that male college students who received positive information about drinkers, reported more favourable drinker prototypes and subsequently consumed more alcohol, than those who received negative information about drinkers. For women, no prototype effects on alcohol use were found.

A fourth study addressed the predictive value of implicit measures of drinker prototypes. Results are in preparation

Output

Spijkerman R, H Larsen, FX Gibbons, RCME Engels (2010) Students' Drinker Prototypes and Alcohol Use in a Naturalistic Setting. *Alcohol Clin Exp Res*, 34, 64-71

Researchers

R Spijkerman PhD (researcher), Prof RCME Engels PhD (project leader), Prof FX Gibbons PhD (advisor, Iowa State University)

In collaboration with: Iowa State University

Term: June 2007 – June 2011

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

17 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. 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 relatively weak. This does not necessarily imply that young people do not imitate each other in drinking behaviour. In this project, the basic assumption is that observational methods that capture the dynamics of peer interactions may be more suitable to test the effect of peers on individual drinking than other methods.

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* (free) 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 (imitation of sipping).

Also, to investigate whether some people are more susceptible to alcohol cues (i.e., other people's drinking behaviour) than others, we investigated the role of stress, implicit and explicit alcohol cognitions and gene-environment interactions.

Methods

To study respondents' drinking in a naturalistic setting, this project consists of at least five experimental observational studies in a bar lab and in a real bar, both located at Radboud University Nijmegen.

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. With an experimental design, we can more reliably test causal relations between predictor and outcome variables and rule out mechanisms of selection.

To study gene-environment interactions saliva of the participants is collected and analyzed in collaboration with the Department of Human Genetics, Radboud University Nijmegen Medical Centre.

Results

Imitation of Alcohol Consumption in a Semi-naturalistic Drinking Contexts

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, 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. 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.

Imitation of Alcohol Consumption in Same-sex versus Opposite-Sex Dyads

To test whether imitation of alcohol consumption differs when being in the company of a same-sex versus opposite-sex drinking partner, a 2 (drinking condition: alcohol vs. no alcohol) by 2 (sex constellation of dyad: same sex vs. opposite sex) mixed between-within subjects design was used. Results showed that imitation of alcohol consumption did not differ when participants were drinking with same-sex partners compared to opposite-sex partners. Men and women seem to imitate regardless of their drinking partner's sex.

Imitation of Alcohol Consumption in a Real Bar

Two experimental observation studies were conducted in a real bar at a university campus in order to validate the ecological validity of the bar lab. Both studies had results similar to those of the bar lab study. The participants consumed significantly and substantially more alcohol when they were exposed to a heavy drinking confederate compared to when they were with a non-drinking confederate. These results show that a bar lab is an excellent context to conduct research on influence processes in relation to alcohol consumption.

Gene by Environment Interaction

To understand individual variability in sensitivity to alcohol cues and subsequent drinking, we argue that it is crucial to take individual genetic variance into account. Activity at dopamine receptors is an acknowledged biological mechanism for the initiation of craving (incentive salience). We tested whether the *DRD4* VNTR polymorphism affects whether people model other people's alcohol use. With a 2 (drinking condition: alcohol vs. no alcohol) by 2 (genotype: risk allele vs. no risk allele) experimental design, we tested whether higher susceptibility to alcohol-related cues (i.e. seeing someone drink) was related to the *DRD4* VNTR 7-repeat polymorphism. A strong gene-environment interaction showed that participants carrying at least one copy of the 7-repeat allele consumed substantially more alcohol in the presence of heavy-drinking others than those without the risk allele. This study highlights that individual variability in sensitivity to other people's drinking behaviour may be attributed to genetic differences. Carrying the 7-repeat allele may increase the risk for heavy alcohol use and/or abuse when in the company of heavy-drinking peers

Role of Stress in Imitation of Alcohol Consumption

To further investigate individual differences in the tendency to imitation, we investigated the role of stress. We expected that people who receive a social stress stimuli would be more prone to imitate alcohol consumption than participants who do not.

We used a 2 (Drinking condition: 3 alcoholic beverages vs. 3 non-alcoholic beverages) by 2 (stress priming vs. neutral puzzle) design. Half of the participants was randomly assigned to an alcohol-drinking condition or a non-alcohol-drinking condition (drinking behaviour of the confederate) and social stress task or control condition before entering the laboratory bar. Findings showed that although participants in the stress condition were more stressed than participants in the no-stress condition, it did not influence the tendency to imitate. Participants in the alcohol condition consumed more alcohol than in the no-alcohol condition regardless of their stress levels.

Implicit and explicit alcohol cognitions and imitation of alcohol consumption

Dual-process models imply that alcohol use is related to implicit as well as explicit cognitive processes. Few studies have tested whether both types of processes are related to ad libitum drinking.

We tested whether both implicit and explicit alcohol-related cognitions predicted the amount of alcohol consumed in an ad libitum (semi-) naturalistic drinking situation and whether it would moderate the tendency to imitate.

Two experimental studies used trained confederates (same-sex peers) who consumed either alcoholic or non-alcoholic beverages, while observing participants' drinking behaviour in a 30-min session. We used coding of drinking behaviour from observations, questionnaire data on positive alcohol expectancies and alcohol use patterns, and Implicit Association Tests to assess alcohol associations. Results showed that implicit associations were not related to observed alcohol use, whereas explicit positive expectancies were related to observed alcohol use in two studies. In one study, explicit positive expectancies moderated the tendency to imitate. Implicit associations did not influence the tendency to imitate.

Imitation of Alcoholic and Non-alcoholic Beverages

In another study, we investigated whether imitation is more evident when peers drink alcohol compared to other beverages. We observed sipping behaviour during a 30-minute interaction between same-sex confederates and participants in an *ad lib* semi-naturalistic drinking context (bar lab). Results show that participants imitated the sips of the confederates, but that the likelihood of participants imitating a sip was lower when confederates were drinking alcoholic beverages and participants non-alcoholic beverages compared to when both were consuming alcohol.

Drinking in a Micro-Perspective: The Role of Engagement in Imitation of Sips of Alcoholic Beverages

In the current study, we used a real-time approach to test whether engagement during an interaction was related to imitation of another person's drinking behaviour. We observed moment-to-moment engagement levels and sipping behaviour during a 30-minute interaction between same-sex confederates and participants in a semi-naturalistic ad lib drinking context (n=34 dyads; 18 males; 18-25 years). We applied multilevel proportional hazard models to test the relationships between engagement levels and imitation of sipping, when consuming alcohol compared to soda. Results showed that engagement levels were not related to the propensity to imitate sipping. Whether or not the dyad consumed alcoholic or non-alcoholic beverages did not moderate the associations between engagement and imitation of sipping. Main effects of drinking condition indicated that participants who were consuming alcohol were more likely to imitate than participants consuming soda. Hence, imitation of sipping while drinking alcohol appears to be present regardless of the engagement level.

Output

Larsen H, RCME Engels, I Granic, G Overbeek (2009) An Experimental Study on Imitation of Alcohol Consumption in Same-sex Dyads. *Alcohol and Alcoholism*, 44, 250-255

Larsen H, RCME Engels, PM Souren, I Granic, G Overbeek (2010) Peer Influence in a Micro-Perspective: Imitation of Alcoholic and Non-Alcoholic Beverages. *Addictive Behaviors*, 35, 49-52

Larsen H, G Overbeek, AAG Vermulst, I Granic, RCME Engels (2010) Initiation and continuation of best friends and adolescents' alcohol consumption: Do self-esteem and self-control function as moderators? *International Journal of Behavioral Development*, 34, 406-416

Larsen H, G Overbeek, I Granic, RCME Engels (2010) Imitation of Alcohol Consumption in Same-Sex and Other-Sex Dyads. *Alcohol & Alcoholism*, 45, 557-562

Larsen, H, C van der Zwaluw, G Overbeek, I Granic, B Franke, RCME Engels (2010) A Variable-Number-of-Tandem-Repeats Polymorphism in the Dopamine D4 Receptor Gene Affects Social Adaptation of Alcohol Use: Investigation of a Gene-Environment Interaction. *Psychological Science*, 21, 1064-1068

Larsen H, C van der Zwaluw, G Overbeek, I Granic, B Franke, RCME Engels (2011) De invloed van het *DRD4* VNTR polymorfisme op adaptatie aan andermans alcoholconsumptie. Een onderzoek naar een genomgevinginteractie. *Psychologie en Gezondheid* 39/1, 5-11

Larsen H, G Overbeek, I Granic, RCME Engels (2012). The Strong Effect of other People's Drinking: Two Experimental Observational Studies in a Real Bar. *American Journal on Addictions*, 21, 168-175

Larsen H, RCME Engels, RW Wiers, I Granic, R Spijkerman (in press) Implicit and explicit alcohol cognitions and observed alcohol consumption: Three studies in (semi-)naturalistic drinking settings. *Addiction*

Larsen H, A Lichtwarck-Aschoff, E Kuntsche, I Granic, RCME Engels (submitted) Drinking in a micro-perspective: The role of engagement in imitation of sips of alcoholic beverages

Larsen H, RCME Engels, I Granic, AC Huizink (submitted) Stress and imitation of drinking behavior. An experimental study in a (semi-)naturalistic context

Researchers

H Larsen MSc (PhD student), Prof RCME Engels PhD (promotor), Prof I Granic PhD (promotor)

Term: 2006 - 2011

Financing: Netherlands Organization for Scientific Research (*NWO*), Radboud University Nijmegen

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

Aim and research questions

We examined how family-environmental factors interact with candidate genes in predicting alcohol use in early, middle, and late adolescence. The main starting point was 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 were:

- 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?

Methods

Research questions were answered by means of a longitudinal study with six annual waves.

At wave 1 a total of 428 families, consisting of two parents and two adolescent children (aged 13 and 15 years at wave 1) were participating.

Six assessments have 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 behavior.

In addition, a small cross-sectional study among approximately 100 13-year-olds was initiated to examine relationships between genetic polymorphisms, impulsivity and alcohol use in an endophenotypic approach. Data were collected at secondary schools among 7th graders (2e klassers).

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 behavior may be more influenced by other factors, such as genetic susceptibility and peer drinking.

The second study showed that adolescents and their intimate partners were relatively similar in alcohol use. This resemblance was best explained by adolescents' selection of a 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.

The third 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.

From the fourth study, a systematic review of 18 studies, it was concluded that polymorphisms in the dopamine transporter gene (*DAT1/SLC6A3*) were generally not directly related to alcohol dependence. There was, however, some evidence that alcohol-dependent persons with the 9-repeat allele of a VNTR in *DAT1* experienced higher levels of alcohol-withdrawal symptoms such as seizures and delirium tremens.

The fourth study was a review 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.

In the fifth study, we tested whether three SNPs in the dopamine D2 receptor (*DRD2*) gene and the ankyrin repeat and kinase domain containing 1 (*ANKK1*) gene, among which the frequently studied Taq1A SNP, were associated with an elevated trajectory of young adults' externalizing behavior. Impulsivity did not mediate this relationship nor was it directly associated with externalizing behavior.

In study six we examined the development of adolescent alcohol use over 5 waves (from age 13 to 17 years). Both the starting point and the growth of alcohol use differed significantly from zero. In addition, a polymorphism (5-HTTLPR) of the serotonin transporter gene (*SLC6A4*) significantly predicted adolescent alcohol use; those adolescents with the risk (short) allele showed a steeper increase in alcohol use over time than adolescents without the risk allele.

The seventh study tested for interaction effects between the dopamine D2 receptor gene (*DRD2*) 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.

Study eight was a replication study of the fifth study, in which we again found that the association between parental alcohol-specific rule-setting and adolescent alcohol use was stronger for *DRD2* A1 allele carriers.

In study nine it was reported that alcohol use of best friends was longitudinally and reciprocally related to adolescents' drinking over time. These relationships were not moderated by a polymorphism in the dopamine D4 receptor (*DRD4*) gene.

The tenth study was a review 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.

In our eleventh study we showed that adolescents who drink to cope with stress and negative mood (i.e. coping drinkers) reported more alcohol-related problems and binge drinking. This relationship was particularly strong among those with the *DRD2* risk allele.

In the twelfth and final study of this project it was shown that the *OPRM1* genotype was associated with more frequent alcohol use in early adolescents, while two dopaminergic genotypes (*DRD2* and *DAT1*) were not. This association was moderated by reversal learning performance; those with the G allele of a polymorphism (A118G) in the *OPRM1* gene consumed alcohol more frequently if they committed more commission errors and if they perseverated less on a reversal learning task.

Output

Zwaluw CS van der, RHJ Scholte, AA Vermulst, JK Buitelaar, R Verkes, RCME Engels (2008) Parental problem drinking, parenting, and adolescent alcohol use. *Journal of Behavioral Medicine* 31:189–200

Zwaluw CS van der, RHJ Scholte, AA Vermulst, J Buitelaar, R Verkes, RCME Engels (2009) The Crown of Love: Intimate Relations and Alcohol Use in Adolescence. *European Child and Adolescent Psychiatry* 18:407-417

Zwaluw CS van der, W van den Wildenberg, RW Wiers, B Franke, J Buitelaar, RHJ Scholte, RCME Engels (2007) Polymorphisms in the mu-opioid receptor gene (*OPRM1*) and the implications for alcohol dependence in humans. *Pharmacogenomics* 8:1427-1436

Zwaluw CS van der, RCME Engels, J Buitelaar, RJ Verkes, B Franke, RHJ Scholte (2009) Polymorphisms in the dopamine transporter gene (*SLC6A3/DAT1*) and alcohol dependence in humans: a systematic review. *Pharmacogenomics* 10:853-866

Zwaluw CS van der, RCME Engels, AA Vermulst, RJ Rose, J Buitelaar, B Franke, RJ Verkes, RHJ Scholte (2010) Polymorphism in the serotonin transporter gene (5-HTTLPR) predicts the development of adolescent alcohol use. *Drug and Alcohol Dependence* 112:134-139

Zwaluw CS van der, RCME Engels, AA Vermulst, B Franke, J Buitelaar, RJ Verkes, RHJ Scholte (2010) Interaction between dopamine D2 receptor genotype and parental rule-setting in adolescent alcohol use: evidence for a gene-parenting interaction. *Molecular Psychiatry* 15:727-735

Pieters S, CS van der Zwaluw, H van der Vorst, R Wiers, W Burk, RCME Engels (2011) Interaction between the dopamine D2 receptor gene and parental rules on adolescents' alcohol use. Resubmitted to *Drug and Alcohol Dependence*. *Shared first authorship with S Pieters

Zwaluw CS van der, H Larsen, RCME Engels (2011) Best Friends and alcohol use in adolescence: The role of the dopamine D4 receptor gene. *Addiction Biology*, epub ahead of print

Zwaluw CS van der, RCME Engels (2009) Gene-environment interactions and alcohol use and dependence: Current status and future challenges. *Addiction* 104:907-914

Zwaluw CS van der, E Kuntsche, RCME Engels (2011) Risky Alcohol Use in Adolescence: The role of genes and coping motives. *Alcoholism: Clinical and Experimental Research* 35:756-64

Engels RCME, RNH de Leeuw, EAP Poelen, H van der Vorst, CS van der Zwaluw, JFJ van Leeuwe (2007) The impact of parents on adolescent drinking and friendship selection processes. In: Järvinen M, Room R (eds) *Youth drinking cultures*. Ashgate Publishing Limited, Hampshire England (pp 101-119)

Engels RCME, CS van der Zwaluw (2008) Gene-environment interactions and health behaviours: opportunities for European health psychology. *Eur Health Psychol* 10:59-61

Otten R, CS van der Zwaluw, H van der Vorst, RCME Engels (2008) Partner effects and bidirectional parent-child effects in family alcohol use. *Eur Addict Res* 14:106-112

Zwaluw CS van der, B Franke, RCME Engels (2009) Research highlights. *Pharmacogenomics* 10:1385-1388

Strien T van, HM Snoek, CS van der Zwaluw, RCME Engels (2010) Parental control and the dopamine D2 receptor gene (DRD2) interaction on emotional eating in adolescence. *Appetite* 54:255-261

Larsen H, CS van der Zwaluw CS, G Overbeek, I Granic, B Franke, RCME Engels (2010) A variable number of tandem repeats polymorphism in the dopamine D4 receptor gene affects social adaptation of alcohol use: investigation of a gene-environment interaction. *Psychol Sci* 21:1064-1068

Zwaluw CS van der, SA Valentijn, R Nieuwenhuis-Mark, SM Rasquin, CM van Heugten (2010) Cognitive functioning in the acute phase poststroke: a predictor for discharge destination? *J Stroke Cerebrovasc Dis*, epub ahead of print

Strien T van, CS van der Zwaluw, RCME Engels (2010) Emotional eating in adolescents: a gene (SLC6A4/5-HTT) - depressive feelings interaction analysis. *J Psychiat Res* 44:1035-1042

Zwaluw CS van der, RCME Engels (2010) Gen-omgevingsinteracties in alcoholgebruik. *Kind en Adolescent* 31: 188-203

Larsen H, CS van der Zwaluw, G Overbeek, I Granic, B Franke, RCME Engels (2011) De invloed van het DRD4 VNTR polymorfisme op adaptatie aan andermans alcoholconsumptie: een onderzoek naar een gen-omgevinginteractie. *Psychologie en Gezondheid* 1:5-11

Anschutz D, RCME Engels, CS van der Zwaluw, T van Strien (2011) Sex differences in young adults' snack food intake after food commercial exposure. *Appetite* 56:255-260

Zwaluw CS van der, B Franke, RCME Engels (2009) Research highlights. *Pharmacogenomics* 10:1385-1388

Researchers

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

19 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 datasets are used. One is a set of surveys from European countries in which alcohol consumption (level of consumption and drinking six 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 protective effect of multiple roles appears to be hardly mediated or moderated by psychological variables like mastery or depressed mood.

A first multi-level analysis including country indicators for gender equity, indicates that the protective effect of multiple roles may depend on the extent mothers are enabled to have (also) a paid job.

Output

Kuntsche S, RA Knibbe, EN Kuntsche, G Gmel (2010) Are housewives really desperate? The relevance of societal factors in the association between social roles and alcohol use among mothers. *Alcoholism-Clinical and Experimental Research*, 34(8 Suppl), 45A

Kuntsche S, RA Knibbe, G Gmel (2009) Social roles and alcohol consumption: a study of 10 industrialized countries. *Social Science and Medicine*, 68, 1263-1270

Kuntsche S, G Gmel, RA Knibbe, H Kuendig, K Bloomfield, S Kramer, U Grittner (2006) Gender and cultural differences in the association between family roles, social stratification, and alcohol use: A European cross-cultural analysis *Alcohol and alcoholism*, 41,i37-i46

Kuntsche S, RA Knibbe, G Gmel (2010) Aep beyond; the relevance of depressed mood and mastery in the interplay between the number of social roles and alcohol use. *Addictive behaviors*, 35, 1013-1020

Kuntsch S, RA Knibbe, E Kuntsche, G Gmel(2011) Housewife or working mum: each to her own? The relevance of societal factors in the association between social roles and alcohol use among mothers in 16 industrialized countries. *Addiction*, 106,1925-1932

Kuntsche S (2011) Snow White's heritage; gender, social roles and alcohol use. PhD thesis, Maastricht University, December 2011

Researchers

S Kuntsche MSc (PhD student, SIPA), Prof RA Knibbe PhD (promotor)

In collaboration with: Swiss Foundation of Alcohol Research (SIPA)

Term: January 2005 - October 2011

Financing: Swiss Foundation of Alcohol Research (SIPA)

Domain Addictive substances

Illegal psychoactive substances

20 Social consequences of alcohol and drug addiction: a state of the art study

Aim and research questions

Adverse physical and psychological consequences of alcohol and drug addiction are well documented. Besides these health consequences, substance misuse might also lead to considerable social and societal damage. The aim of this study was to give an overview of the current knowledge regarding several important social consequences of alcohol and drug addiction.

First, we described the relation between alcohol and drug addiction and the following social consequences: disturbed social relationships, homelessness, domestic violence (including child abuse), truancy, school dropout, and financial debts. Second, groups at risk for each social consequence were identified, the current preventive approach and treatment for each social consequence was described, and costs of these adverse consequences of alcohol and drug addiction were determined. Finally, gaps in the scientific knowledge were identified and recommendations for future research were made.

Methods

An extensive literature search was performed. Preliminary results were discussed during an expert meeting with researchers, policymakers, and practitioners in addiction treatment. Final results were presented in a report including recommendations for future research.

Results

The (causal) relationship between alcohol and drug addiction and the adverse social consequences (disturbed social relationships, homelessness, domestic violence (including child abuse), truancy, school dropout, and financial debts) remains unclear for most of the social consequences. However, a causal relationship was found between substance use and school drop-out. Furthermore, illicit drug addiction seems to predict homelessness. Overall, we conclude that the risk factors for the adverse social consequences might be the same as the risk factors for alcohol and drug addiction.

We recommend that future research regarding social consequences of alcohol and drug addiction aims at investigating effectiveness of preventive approaches and treatment, and identifying specific target groups for prevention and treatment. Investigating the (causal) relationship between alcohol and drug addiction and the negative social consequences described in this study deserves no priority in future research.

Output

Hamminck A, M Altenburg, C Schrijvers (2011) Sociale gevolgen van verslaving. Een state of the art studie naar verstoring van sociale relaties, schooluitval, dakloosheid, schulden en huiselijk geweld als gevolg van alcohol- of drugsverslaving. Rotterdam: IVO

Researchers

AB Hamminck, MSc (researcher), M Altenburg, MSc (researcher), CTM Schrijvers, PhD (project leader)

Term: August 2011 – December 2011

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

21 Preventing (problematic) GHB use in the Netherlands

Aim and research questions

During the last few years, there has been increasing attention for GHB (gamma hydroxy butyrate) use in the Netherlands. Prevalence of GHB use seems to be increasing, especially among young people. Addiction treatment centers also acknowledge the increase in registrations of people that experience problems due to GHB use.

Aim of this study is to identify characteristics of GHB users in the Netherlands, such as demographics, patterns of use, motives for use, experiences with GHB and help-seeking behavior for problems associated with GHB use. If possible, specific subgroups of users are specified, for example users in the party scene, students of special needs education, adolescents in child welfare systems, groups of adolescents in rural areas, or homeless people.

Based on the results of this study, recommendations are made regarding the prevention of (problematic) GHB use in these specific subgroups.

Methods

During the first phase of the study (the explorative phase) key figures are interviewed and data of the National Alcohol and Drugs Information System are analyzed to identify characteristics of GHB users in the Netherlands. In the second phase (the in-depth phase) GHB users are interviewed in focus-group interviews and face-to-face interviews. Results of this study are discussed with professionals specialized in prevention of addictive behaviors and recommendations are made for prevention of problematic GHB use.

Results

Data analysis is in progress. Mid-2012 the final report will be available.

Output

-

Researchers

AB Hammink, MSc (researcher), CTM Schrijvers, PhD (project leader)

Term: June 2011 - April 2012

Financing: Volksbond Foundation Rotterdam

22 Stigmatization of substance use disorders

Aim and research questions

People with a substance use disorder are often confronted with negative views and stereotyping. Compared to other conditions, such as mental illness, the stigma attached to substance use disorder is more negative.

The purpose of this study is to investigate the level of stigmatization and discrimination of people with a substance use disorder, more specifically alcohol and/or drug addiction, in the Netherlands. Also investigated are the consequences of stigmatization for the health care delivery and rehabilitation of people with a substance use disorder.

The research questions are:

1. What is the level of stigmatizing attitudes towards people with substance use disorders among the general public and health care professionals?
2. What are the determinants of negative attitudes towards people with substance use disorders?
3. What are the consequences of stigmatization and negative attitudes towards people with a substance use disorder for health care delivery and for their rehabilitation process?

Methods

The attitudes and stereotypical beliefs towards people with a substance use disorder are compared among four subgroups using questionnaires.

The subgroups are: 1) sample of the Dutch general public, 2) general practitioners, 3) health care professionals of mental health care institutions and addiction care, 4) people with a substance use disorder themselves.

The questionnaires for each subgroup are (partially) similar and the measures are stereotypical beliefs, social distance and emotional reactions towards people with a substance use disorder.

The LISS Panel (Longitudinal Internet Studies for Social Sciences, LISS) will serve as a sample of the Dutch general public. A random sample of general practitioners will be approached to complete the questionnaire. Health care professionals and people with a substance use disorder will be approached through contact with mental health and addiction care institutions. Data collection takes place in the spring of 2012.

Results

The first results of this study will become available in 2012.

Output

-

Researchers

LC van Boekel MSc (PhD student), Prof HFL Garretsen PhD (promotor), Prof J van Weeghel PhD (promotor, Tilburg University), EPM Brouwers PhD (copromotor)

In collaboration with: Novadic-Kentron Addiction Care, Organisation for Mental Health Care Eindhoven (*GGzE*), Brijder Addiction Care

Term: March 2011 – March 2015

Financing: Tilburg University

23 Integrated Policy Expert Group

Aim and research questions

As a follow-up study to the two publications “From a policy on illegal drugs to a policy on psychoactive substances” in 2008 and “Towards an integrated policy on psychoactive substances: a theoretical and empirical analyses” in 2010, the objective of this project is gain better understanding of what structures better suit integrated drug policies, and what models/indicators may be developed to better inform one of the outcomes of such policies.

Countries participating in the project are Austria, Belgium, Ireland, Israel, Malta, Norway, the Netherlands, Portugal and Switzerland.

Methods

The basic analysis that the participants made of their own country's policy of psychoactive substances is grounded in the distinction between context, systems and measurements. All participating countries drafted a report along these lines. Preliminary results were discussed in a meeting. Initiated by the Irish representative, the Expert Group developed six indicators that could be used to determine a country's coherence in psychoactive substance policy. Coherence appeared to be a more suitable concept than integration. The six indicators are: conceptualisation of the problem; policy context; legislative framework; structures and resources; strategic framework; responses.

The draft country reports were tested using the approach with the six indicators mentioned and, if appropriate, adjusted accordingly.

Results

For the Netherlands, the coherence of policies on tobacco, alcohol and other drugs was analysed, partly using the six indicators mentioned above. It appears that the Dutch policy on tobacco is driven by health concerns but is weakened in its coherence because an exception is made in the smoking ban for small cafés. Regarding alcohol, health and security concerns are the major justifiers for policy measures, but economic considerations also play a role. The alcohol industry embraced an age limit of 16 years, whereas public health advocates opted for an age limit of 18 years. A clearly incoherent part of Dutch substance policy is observed in its cannabis policy.

A limited number of so-called coffee shop owners is allowed to sell cannabis, whereas they are not allowed to purchase on the illegal wholesale market. With respect to hard drugs, the Dutch policy seems coherent: the demand is reduced as much as possible and treatment facilities are in place to tackle misuse and dependence. Supply is reduced by border control and active prosecution of drug dealers.

Output

Keulen van M, H van de Mheen (2008) From policies on alcohol, tobacco and other drugs to a policy on psychoactive substances: The Netherlands. In R. Muscat (Ed.), From a policy on illegal drugs to a policy on psychoactive substances (pp. 119-124). Strasbourg: Council of Europe Publishing

Mheen van de H (2010) *Example of the interaction between researchers and policy makers: The Netherlands, In: Council of Europe: Pompidou Group. Example of the interaction between researchers and policy makers from 16 countries.* Strasbourg: Council of Europe

Muscat R, H van de Mheen, C Barendregt, and members of the Pompidou Group research platform (2010) *Towards an integrated policy on psychoactive substances: a theoretical and empirical analysis.* Strasbourg: Council of Europe

Muscat R, B Pike (in press) Reflections on the concept of coherency for a policy on psychoactive substances and beyond. Strasbourg: Council of Europe Publishing

Researchers

C Barendregt MSc (researcher), Prof H van de Mheen PhD (project leader)

Term: January 2011 – October 2011

Financing: Council of Europe, IVO

24 Public opinion on substance use and policy measures

Aim and research questions

International differences exist on alcohol and drug-related policy measures. However, knowledge on public opinion with respect to alcohol and drug policy is limited.

The aim of this work is to explore the opinion of citizens on substance use and alcohol and drug policy measures, and which factors influence this opinion. More specifically, this study focuses on the opinion of citizens concerning substance use and alcohol/drug policy measures in two European countries that differ in the strictness of their national alcohol and drug policies: the Netherlands and Norway.

The research objectives are:

1. To examine the opinion of Norwegian and Dutch adults on alcohol policy measures that may prevent young people from problematic drinking.
2. To investigate whether Norwegian and Dutch parents differ in their perceptions on parental measures, and how parents view governmental responsibility to prevent adolescents from substance use.
3. To explore differences between Norwegian and Dutch adults in their level of acceptance of illicit drug use and to explore influences on the level of acceptance.
4. To assess the opinion of 16-22 year olds on alcohol policy measures compared to the opinion of adults older than 22 years.
5. To examine the opinion of Dutch adults on Dutch cannabis policy measures and to explore whether the popularity of these policy measures depends on the extent to which lay people are affected by these measures.

Methods

In 2008 data were collected via an internet survey using a Dutch panel (Longitudinal Internet Studies for Social Sciences, LISS). The LISS panel is based on a true probability sample of 5000 households and includes 8280 panel members aged 16 years and older. In total, 5616 (67.8%) respondents filled out the questionnaire. In Norway 2150 respondents filled out the questionnaire.

Results

In 2011, two studies were published based on these data. First, we examined the opinion of the Dutch population on cannabis policy measures. Two types of measures were distinguished: measures to reduce the availability of cannabis, and educational measures to prevent the use of cannabis.

Opinions on the availability measures are mixed, depending on whether the respondents were recent cannabis users, lifetime cannabis users, or non-users.

Own cannabis use was the strongest predictor of the opinion on these availability measures. For the educational measures, almost all respondents agreed with these; being a cannabis user or not had little effect on the opinions regarding educational measures.

Second, we examined the opinion of Dutch youth (aged 16-22 years) on alcohol policy measures and compared their opinion with that of a Dutch group older than 22 years. Again, a distinction was made between availability measures and educational measures. Regarding availability of alcohol, the younger groups (aged 16-18 and 19-22 years) were significantly more negative about these policy measures than the older respondents (22 years and older).

Educational measures were more popular than availability measures among all three groups; the opinions of the groups showed significant differences between the groups. Own alcohol use was the main predictor for the opinion on the availability measures, and age was the main predictor for the opinion on educational measures.

At present we have focused mainly on the comparison between the Netherlands and Norway with regard to the opinion on the level of acceptance of illicit drug use, the opinion on alcohol policy measures, and the opinion regarding the responsibility of government versus the responsibility of parents to take measures against alcohol and drug use among young people.

Output

Sar R van der, EPM Brouwers, LAM van de Goor, HFL Garretsen (2011) The opinion of adolescents and adults on Dutch restrictive and educational alcohol policy measures. *Health Policy* 99(1),10-16.

Sar R van der, EPM Brouwers, LAM van de Goor, HFL Garretsen (2011) The opinion on Dutch cannabis policy measures: A cross-sectional survey. *Drugs: Education, Prevention, and Policy*, 18(3), 161-171.

Sar R van der, EE Storrø, EPM Brouwers, LAM van de Goor, J Rise, HFL Garretsen (Submitted for publication) Dutch and Norwegian support of alcohol policy measures to prevent young people from problematic drinking: a cross-national comparison.

Sar R van der, E Ødegård, J Rise, EPM Brouwers, LAM van de Goor, HFL Garretsen (Submitted for publication) Acceptance of illicit drug use in the Netherlands and Norway: a cross-sectional survey.

Researchers

R van der Sar MSc (PhD student), K van Beijsterveldt (PhD student until 15-03-2009), Prof HFL Garretsen PhD (promotor), Prof LAM van de Goor PhD (promotor), EPM Brouwers PhD (copromotor)

In collaboration with: SIRUS (Statens institutt for rusmiddelforskning) Norway

Term: February 2008 - February 2012

Financing: Tilburg University

25 Update of the national guideline methadone maintenance treatment

Aim and research questions

In 2004-2005, the national guideline 'Methadone maintenance treatment' (RIOB) was developed to improve treatment of chronic opium-dependent patients in outpatient addiction care. Initiator of this guideline was (amongst others) the Netherlands Health Care Inspectorate, who concluded that methadone programs in the Netherlands did not reach satisfactory standards and used various methods of operation. In recent years the guideline 'Methadone maintenance treatment' has been implemented on a national basis.

In this project, IVO and Nijmegen Institute for Scientist-Practitioners in Addiction (NISPA) will update the guideline. In April 2012 the guideline will be published.

Methods

The guideline is updated using scientific knowledge, practice-based knowledge of addiction care professionals, and experiential knowledge of patients.

Results

In autumn 2012 the updated guideline will be available.

Output

Loth C, A Risselada, EG Wits, C de Jong C, H van de Mheen (2010). RIOB. *Landelijke implementatie Richtlijn Opiatonderhoudsbehandeling. Eindrapport van de tweede fase van de ondersteuning bij het implementatieproces*. Amersfoort: Resultaten Scoren

Researchers

EG Wits MSc (researcher), C Loth PhD (researcher, NISPA), Prof H van de Mheen PhD (project leader), Prof C de Jong Psychiatrist (project leader, NISPA)

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

Term: November 2006 – September 2012

Financing: Ministry of Health, Welfare and Sports (VWS)

26 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 investigates 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, producers and retailers. Moreover, developments in the Dutch cannabis branch since the 1990s will be mapped.

Methods

After a review of literature and establishment of a theoretical framework, three types of qualitative data are 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 expert meetings with policymakers who are acquainted with the branch and its insiders.

Results

Will be reported in a PhD thesis that is expected in 2012.

Output

-

Researchers

NJM Maalsté MSc (PhD student, till 04/2007), Prof H van Mheen PhD (promotor), Prof S Zouridis PhD (promotor, University of Tilburg)

In collaboration with: University of Tilburg

Term: January 2003 – August 2012

Financing: IVO, University of Tilburg

27 National Prevalence Study on Licit and Illicit Substance use 2009

Aim and research questions

The National Prevalence Study on Licit and Illicit Substance Use 2009 is the fourth National Prevalence study carried out in the Netherlands. Earlier National Prevalence studies were carried out in 1997, 2001 and 2005. The 2005 study was also carried out by the IVO.

The main research questions for the 2009 project are:

1. What is the prevalence, incidence and continuation rate of the substances cannabis, ecstasy, cocaine, amphetamines, LSD, heroin, alcohol, tobacco, hypnotics and/or sedatives, and performance-enhancing drugs among the general Dutch population, aged 15 to 64 years?
2. What is the prevalence, incidence and continuation rate of these substances among the general Dutch population, divided by gender, age and population density?
3. What trends in substance use can be detected since the first measurement in 1997?

Methods

The study used the 2009 National Health Sample, as collected by Statistics Netherlands (CBS), to supplement the earlier data on licit and illicit substance use in the Netherlands. Trend analyses combined data from the four datasets which were obtained in the years 1997, 2001, 2005, and 2009 to answer the three research questions for a variety of substances.

Results

Results show a steady decrease in the number of smokers from 1997 to 2009. The number of people using alcohol has also decreased since 1997, as well as the number of binge drinkers. In contrast, the number of people reporting the use of illicit drugs has increased in the last decade. This may (partly) be explained by a different way of measuring illicit drug use: before 2009, people were interviewed face-to-face about illicit drug use, whereas since April 2009 people answer questions on illicit drugs themselves without the interviewer watching. This may have led to an increase in the number of people willing to report their illicit drug use.

Output

Rooij van AJ, TM Schoenmakers, D van de Mheen (2011) *Nationaal Prevalentie Onderzoek Middelengebruik 2009: De kerncijfers* [National Prevalence Study on Substance Use 2009: Core Statistics]. NPO. Rotterdam: IVO

Researchers

AJ van Rooij PhD (researcher), TM Schoenmakers PhD (project leader), Prof H van de Mheen PhD (project leader)

In collaboration with: CBS, Statistics Netherlands

Term: August 2010 – February 2011

Financing: Ministry of Health, Welfare and Sport (VWS)

28 Stay a way: an Intervention on drug abuse in juvenile offenders: development and theoretical rationale of ambulant care in a judicial setting

Aim and research questions

In the framework of the project 'Development of Accepted Behavioral Interventions', the Child Protection Board (*Raad voor de Kinderbescherming*) appointed IVO and Tactus Addiction Care Centre to develop an effective behavioral intervention to reduce drug and alcohol abuse in juvenile offenders.

The aim of this intervention is to prevent criminal recidivism among juvenile offenders. IVO is focused on the theoretical rationale for the intervention, and the development of a study design to evaluate the effects of the intervention.

Methods

The theoretical rationale is based on a literature search, focused on risk factors and protective factors for risky substance use and criminal behaviour, and effective behavioural therapies to reduce risky substance use.

Results

The intervention, called Stay-a-way, is based on Motivational Interviewing and Cognitive Behavioral Therapy. In principle, treatment of the youth will take place on an individual basis. Parents or caregivers will be involved in the therapy.

This intervention was evaluated in June 2011 by the Accreditation Panel for Behavioral Programs of the Ministry of Justice. A full acknowledgment is obtained, and the intervention will be nationally implemented in 2012.

Output

Wits EG, S Ganpat, TM Schoenmakers, A Snoek, J Boonstra, R den Ouden (2011) *Theoretische handleiding Stay-a-Way. Een gedragsinterventie voor middelenproblematiek bij delinquente jongeren*. Deventer/Rotterdam: Tactus/IVO

Wits EG, TM Schoenmakers, S Ganpat, J Boonstra & R den Ouden (2011) *Beoordeling- en Evaluatiehandleiding - Onderzoeksopzet voor een effectonderzoek naar Stay-a-way. Een gedragsinterventie voor jeugdige delinquenten met risicovol middelengebruik*. Deventer/Rotterdam: Tactus/IVO

Researchers

S Ganpat MSc (researcher, till 30/9/2009), EG Wits MSc (project leader), R den Ouden MSc (prevention worker, Tactus Addiction Care Centre), J Boonstra MSc (project leader, Tactus Addiction Care Centre)

In collaboration with: Tactus Addiction Care Centre

Term: April 2009 – June 2011

Financing: Child Protection Board

29 Anxiety disorders and substance abuse: development of a treatment guideline

Aim and research questions

Many people with substance abuse or dependency suffer from anxiety disorders, and vice versa. Appropriate guidelines for the treatment of co-morbid anxiety disorders and substance abuse disorders are lacking. In 2003 (revised 2009) a guideline for the treatment of anxiety disorders was developed. We have developed an addendum to this guideline for people with a co-morbid substance abuse disorder.

Methods

The method used was according to the master protocol of the Scoring Results program. Scoring Results is a nationwide program in which addiction care organisations and researchers work together to increase evidence-based practice in addiction care. This protocol consists of combining evidence-based, practice-based and preference-based (what clients want) evidence. The master protocol contains the following steps: preparation phase, literature review, field analysis, design phase, comment by experts, internal pilot, external pilot, and an implementation and maintenance phase.

Results

A guideline has been produced for the treatment of patients with anxiety disorder and co-morbid substance abuse or misuse.

Output

Snoek A, EG Wits, W Meulders (in press) *Richtlijn Middelenmisbruik of -afhankelijkheid en angststoornissen*. Addendum bij de MDR Angststoornissen. Versie 1.0. Amersfoort: Resultaten Scoren

Snoek A, EG Wits, W Meulders (in press) *Patiëntenfolder Angststoornissen en problemen met verslavende middelen*. Amersfoort: Resultaten Scoren

Researchers

A Snoek MSc (researcher), EG Wits MSc (project leader), W Meulders MSc (project leader, Mondriaan Addiction Care), L de Vooght MSc (advisor, Mondriaan Addiction Care), K Schruers MSc (advisor, Mondriaan Addiction Care), M Wellmer PhD (advisor, Mondriaan Addiction Care), N Gielen MSc (advisor, Mondriaan Addiction Care)

In collaboration with: Mondriaan Addiction Care

Term: October 2008 – April 2011

Financing: Scoring Results: a program of the Netherlands Society of Mental Health Authorities (*GGZ NL*)

Domain Addictive substances

Smoking

30 Developing and testing strategies to effectively reach and involve resistant hard-core smokers in tobacco control

Aim and research questions

This project focuses on methods to constructively reach and involve hard-core smokers of low and high socioeconomic status (SES) to (re)evaluate their smoking cognitions and behaviours. The aim is to design a website on which hard-core smokers will evaluate their smoking behaviour in a non-coercive way. Several studies will be performed in order to develop this online intervention.

Methods

First, much effort is needed to establish how hard-core smokers can be reached and involved in a website on smoking behaviour. Therefore, focus group interviews with hard-core smokers and former hard-core smokers will be held (Study 1). The second goal of these interviews is to gather information about the ambivalence hard-core smokers have towards their own smoking behaviour. This information will be of use in the final part of the project in which Motivational Interviewing techniques are applied. The information on ambivalence will be validated in a subsequent online survey (Study 2). The data of the survey will allow us to identify subgroups of hard-core smokers based on the type of outcome expectancies that are relevant to them. Identification of these subgroups is needed to design a web system that is tailored to people's unique outcome expectancies.

A laboratory study (Study 3) will be conducted to test several conditions for effectively influencing dysfunctional cognitions among our target group. We expect that exposure to fear appeals combined with self-efficacy enhancing information will increase the motivation of hard-core smokers to quit smoking. Based on the outcomes of the focus groups, the online survey and experiment, a pro-active internet system will be developed and tested in an online randomized controlled experiment (Study 4). This system will contain the most optimal fear appeal manipulation. In addition, it will provide participants with individualized feedback on their perceived costs and benefits of smoking and smoking cessation. Several combinations of these interventions will be tested on their effectiveness in changing smoking behaviour, the motivation to continue smoking, adherence to disengagement beliefs, perceived advantages of smoking, and self-efficacy not to smoke in difficult situations. The internet system can easily be converted to be used in practice. Given the damaging health effects of smoking together with the vastness of the target population and the massive recruitment capacity through the internet, this intervention has the potential to have a significant effect on public health.

Results

Study 1 is in progress; no results are yet available.

Output

-

Researchers

J Bommelé MSc (PhD student), Prof H van de Mheen PhD (promotor), TM Schoenmakers PhD (copromotor), M Kleinjan PhD (copromotor)

In collaboration with: Radboud University Nijmegen, Free University Amsterdam, University of Groningen, Utrecht University, Dutch Foundation on Smoking and Health (*STIVORO*)

Term: November 2010 – May 2015

Financing: Netherlands Organization for Health Research and Development (*ZonMW*)

31 Family characteristics in paediatric asthma outcomes: Test of a biopsychosocial model

Aim and research questions

The first aim is to test the role of family characteristics (parental smoking, general parenting practices, asthma-specific parenting practices, physical activity specific parenting, and parent-child conflict) in predicting asthma outcomes (severity, health related quality of life, psychosocial well-being) of young adolescents with asthma.

Second aim is to test the mechanisms underlying the relations between family characteristics and asthma outcomes. More specifically, we will test whether health behaviours (physical activity, adolescent smoking), asthma management (coping and adherence), and physiological functioning (stress) mediate the relations between family characteristics and asthma outcomes.

Our project will provide information about how to develop intervention programs for families with a child with asthma.

Methods

This will be tested in a study using a three-wave longitudinal design. Participants will be recruited through schools, and there will be follow-ups after 12 and 24 months. Questionnaire data and spirometry data will be collected during home visits among 250 early adolescents with asthma (age 10-13 at assessment 1) and both parents.

Results

Currently we have recruited most of the families and we have started with the home visits.

Output

-

Researchers:

D Tiggelman MSc (PhD student), M van de Ven PhD (copromotor, Radboud University Nijmegen), Prof RCME Engels PhD (promotor), Prof CP van Schayck PhD (promotor, Maastricht University)

In collaboration with: Maastricht University, Radboud University Nijmegen, Netherlands Asthma Foundation

Term: September 2010 – September 2014

Financing: Netherlands Asthma Foundation

32 Evaluation of a smoking cessation intervention for parents

Aim and research questions

The present study aims to evaluate the impact of a smoking cessation intervention delivered through counselor-initiated telephone calls to smoking parents, who will be proactively identified and recruited through their children's schools. Telephone counseling will integrate a Motivational Interviewing's counseling style and cognitive-behavioral skill-building components. In addition to evaluation of the effectiveness of the intervention on parental smoking, we test the effects of the intervention on smoking-related cognitions (e.g., intention to smoke, self-efficacy, pros and cons of smoking, smoking norms) and smoking initiation in children of participating parents. Telephone counseling to aid smoking cessation is proven effective and is currently being implemented in many countries. We expect that telephone counseling can help not only to support parents in quitting, but also to establish stronger anti-smoking cognitions in their children and to eventually prevent them from starting to smoke.

Methods

The aim is to conduct a two-arm randomized controlled trial (telephone counseling versus control condition). Parental smoking will be assessed at baseline, and after 3 months and 12 months. Children will be assessed at baseline and after 12 months.

Results

Data collection and analysis are in progress.

Output

Schuck K, R Otten, M Kleinjan, RCME Engels (2012) The role of environmental smoking in children's smoking-related cognitions and susceptibility to initiate smoking. Manuscript under review

Schuck K, M Kleinjan, R Otten, RCME Engels, JR DiFranza (2012) Responses to environmental smoking in never-smoking children: Can symptoms of nicotine addiction develop in response to secondhand smoke exposure? (*Manuscript under review*)

Schuck K, R Otten, M Kleinjan, ED Barker, RCME Engels (2012) Bidirectional influences between parents and children in smoking behaviour: A longitudinal full family model. *Nicotine and Tobacco Research*. (*in press*)

Schuck K, R Otten, M Kleinjan, JB Bricker, RCME Engels (2011) Effectiveness of proactive telephone counseling for smoking cessation in parents. Study protocol of a randomized controlled trial. *BMC Public Health*, 11, 732-737

Schuck K, R Otten, RCME Engels, M Kleinjan (2011) The relative role of nicotine dependence and smoking-related cognitions in adolescents' process of smoking cessation. *Psychology and Health*, 26, 1310-1326

Researchers

K Schuck MSc (PhD student), R Otten PhD (copromotor), M Kleinjan PhD (copromotor), Prof RCME Engels PhD (promotor)

In collaboration with: Dutch Foundation on Smoking and Health (*STIVORO*), Fred Hutchinson Cancer Research Centre, USA; Netherlands Institute of Mental Health and Addiction (*Trimbos Institute*)

Term: September 2009 – September 2013

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

33 “Smoke-free-kids”: test of a smoking prevention program for parents of primary school children

Aim and research questions

The aim of ‘*Smoke-free Kids*’ is to test a highly innovative and successful program in the USA for parents of primary school children in a sample of Dutch parents.

Methods

A randomized controlled trial is conducted among 1478 parents of children aged 9-11 years. The intervention program consists of a series of six activity guides including communication tip sheets for parents and children to complete together.

The control group receives an alternative program based on facts. This longitudinal design with yearly waves will measure smoking behavior of adolescents, and anti-smoking socialization, like communication about smoking, over a 3-year period.

Results

We evaluated the short-term effects of the ‘*Smoke-free Kids*’ program (baseline to 6 months) on smoking-specific parenting and smoking cognitions. Significant program effects were found for frequency of communication (82% reported that completed at least 3 of 5 activity modules), non-smoking agreement, and perceived maternal influences. For smoking cognitions, program effects were found for self-efficacy, social norm of (best) friends, and a marginal effect for social norms of mother. Parental smoking had no moderating effect.

At this moment we are gathering the long-term data of 36 months.

Output

Hiemstra M, L Ringlever, R Otten, C Jackson, OCP van Schayck, RCME Engels (2009) Efficacy of Smoking Prevention Program 'Smoke-free Kids': Study Protocol of a Randomized Controlled Trial. *BMC Public Health*. 9:477 doi:10.1186/1471-2458-9-477

Hiemstra M, R Otten, OCP van Schayck, RCME Engels (resubmitted) *Smoking-specific Communication and Children's Smoking Onset: an Extension of the Theory of Planned Behavior*. *Psychology & Health*

Hiemstra M, L Ringlever, R Otten, OCP van Schayck, RCME Engels (submitted) Short-Term Effects of Smoke-free Kids on Anti-smoking Socialization and Smoking Cognitions: A Randomized Home-based Smoking Prevention Program for Elementary School Aged Children. *European Addiction Research*

Researchers

M Hiemstra MSc (PhD student), Prof RCME Engels PhD (promotor), R Otten PhD (copromotor), Prof CP van Schayck PhD (promotor, Maastricht University)

In collaboration with: University Maastricht, Netherlands Institute for Mental Health and Addiction (*Trimbos Institute*), Dutch Foundation on Smoking and Health (*STIVORO*)

Term: September 2008 - December 2012

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

34 “Smoke-free-kids”: evaluation of a smoking prevention program for parents of asthmatic children

Aim and research questions

A successfully tested program in the USA, *Smoke-free Kids*, will be applied to a Dutch sample of smoking parents of children with asthmatic symptoms. Research has shown that smoking behaviour of adolescents with asthma is similar to that of their non-asthmatic peers. There is evidence that adolescents' responsiveness to smoking prevention programs diminishes once they have initiated smoking; therefore we focus on parents of children aged 9-12 years.

We expect that parents involved in this program (compared to controls) will be more involved in constructive communication on smoking topics. Moreover, we expect that children involved in this program will be less likely to experiment with smoking three years post-baseline.

Methods

A large number of primary schools were contacted in order to reach the families. Other ways of recruiting participants were also used, e.g. via the media, hospitals, and general practitioners. In total, 1,479 mother-child dyads participated in the baseline measurement of this randomized controlled trial. Half of the families received activity guides, one each month for five consecutive months, with assignments for both mother and child. The other half of the families received information booklets, also for five consecutive months, with information only for mother. Mothers and children were contacted before the intervention started. Children were then interviewed again by telephone or by questionnaires (by post) immediately after the intervention period (6-month follow-up) and at 12-month follow-up. Currently we are working on the 24-month follow-up. In 2012, the final wave (36-month follow-up) will take place.

In addition, between March and May 2010, all children currently experiencing asthmatic symptoms were visited at home to conduct lung function measures, as well as collect more detailed information about the asthma.

Results

Data collection and analysis for the effects of the intervention program is in progress.

Based on data of the baseline measurement, we found that children with a diagnosis of asthma were more likely to have smoked a puff of a cigarette at age 9-12 years, as compared to children without a diagnosis of asthma: this after important confounders such as parental smoking, socio-economic status, and child problem behaviors were controlled for.

Output

Hiemstra M, Ringlever L, Otten R, Jackson C, Van Schayck OCP, Engels RCME. Efficacy of smoking prevention program 'Smoke-free Kids': study protocol of a randomized controlled trial. *BMC Publ Health* 2009;9:477

Ringlever L, R Otten, RNH de Leeuw, RCME Engels (2011). Effects of parents' education and occupation on adolescent smoking and the mediating role of smoking-specific parenting and parent smoking. *Eur Addict Res*, 17(2), 5-63

Ringlever L, R Otten, O van Schayck, RCME Engels (2011) Early smoking in school-aged children with and without a diagnosis of asthma. *European Journal of Public Health*, 1-5

Researchers

L Ringlever MSc (PhD student), R Otten PhD (copromotor), Prof RCME Engels PhD (promotor), Prof CP van Schayck PhD (promotor, Maastricht University), C Jackson PhD (advisor, RTI International)

In collaboration with: Maastricht University, RTI International N. Carolina USA

Term: March 2008 - March 2013

Financing: Netherlands Asthma Foundation

35 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. Cross-sectional and longitudinal studies have documented that smoking portrayal in movies is associated with smoking initiation among adolescents.

The aim of this project is to examine the effect of smoking cues in movies on smokers and non-smokers. Using experimental designs, we 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 young 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 and in schools.

Results

Smoking initiation:

Experimental research has shown that short exposure to movie smoking affects smoking-related cognitions in adolescents. This study tested that association in children. In two experiments, 8-11 year-olds were exposed to either a cartoon or family-oriented movie and randomly assigned to 20-minute segments with or without smoking characters. The majority of both samples of children had very unfavorable cognitions regarding smoking. Exposure to movie smoking had no effect on any explicit smoking cognition or implicit associations towards smoking in either experiment. Possible explanations include a floor effect, in which children are cognitively resistant to short-term smoking prompts, or lack of salience of movie smoking prompts from cartoons and family-oriented movies.

Smoking continuation:

Research has shown that smokers have an attentional bias for pictorial smoking cues. The objective of the present study was to examine whether smokers also have an attentional bias for dynamic smoking cues in contemporary movies. We examined smokers' and non-smokers' eye movements while watching a movie clip by using eye-tracking technology. Our results confirm the results of traditional pictorial attentional bias research. Smokers initially directed their gaze more quickly towards smoking-related cues, focusing on them more often and for a longer duration compared with non-smokers. Thus, smoking cues in movies directly affect the attention of smokers.

These findings indicate that the effects of dynamic smoking cues, in addition to other environmental smoking cues, need to be taken into account in smoking cessation therapies in order to increase successful smoking cessation and to prevent relapses.

The aim of the present study was to test whether smoking cues in movies function as triggers to evoke craving. To accomplish this, we examined smokers' reactivity to smoking characters in a movie and tested whether smokers who are confronted with smoking characters in a movie segment have a greater desire to smoke than smokers confronted with non-smoking characters.

Participants were assigned randomly to one of two movie conditions (smoking versus non-smoking characters). No differences in craving were found between those who watched smoking characters and those who watched non-smoking characters. No effect of smoking cues in movies on craving was found, in contrast with research supporting the cue-craving link. Thus, if replicated, this might indicate that smoking cues in such contexts do not affect smokers' desire to smoke as expected.

The objective of this study was to investigate the effect of smoking cues in movies on immediate smoking behavior. We tested whether smokers who are confronted with smoking characters in a movie smoke more cigarettes while watching than those confronted with non-smoking characters and whether this effect is less profound when smokers are more involved in the narrative (i.e., transportation). The results showed a significant interaction effect between movie condition and transportation on immediate smoking behaviour, indicating that smokers who were less transported smoked significantly more cigarettes when they were exposed to smoking characters compared with non-smoking characters. However, in a same study with adolescent smokers no effects of smoking cues in movies on immediate smoking behaviour was found.

Output

Lochbuehler K, RCME Engels, RHJ Scholte (2009) Influence of smoking cues in movies on craving among smokers. *Addiction*, 104(12), 2102-2109

Lochbuehler K, M Peters, RHJ Scholte, RCME Engels (2010) Effects of smoking cues in movies on immediate smoking behavior. *Nicotine & Tobacco Research*, 12(9), 913-918

Lochbuehler K, H Voogd, RHJ Scholte, RCME Engels (2011) Attentional bias in smokers: Exposure to dynamic smoking cues in contemporary movies. *Journal of Psychopharmacology*, 25(4), 514-519

Lochbuehler K, R Otten, H Voogd, RCME Engels. Parental smoking and children's attention to smoking cues. *Journal of Psychopharmacology* (in press)

Researchers

K Lochbühler MSc (PhD student), Prof RCME Engels PhD (promotor)

Term: December 2007 - December 2012

Financing: Radboud University Nijmegen

36 Effects of new laws in the Netherlands aimed at reducing tobacco consumption

Aim and research questions

In 2002 the Dutch government started to formulate and plan implementation of new laws with respect to smoking. One major law stipulates that sellers of tobacco must ensure that they do not sell tobacco to adolescents younger than 16 years. Another concerns the obligation of employers to provide a smoke-free work environment. Finally, in June 2008 a law was implemented forbidding tobacco use in restaurants, pubs, discos, sport canteens, etc.

The main questions of this study are:

- What is the effect of the 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 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 the smoking behavior of smokers?
- What is the effect of the introduction of the smoke-free work environment in combination with two tax increases on tobacco products on the prevalence of smoking among those having paid work and those not having paid work?
- To which extent do employers comply with the 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 law forbidding smoking in restaurants, pubs, sport canteens, etc.

Methods

Survey questions on the effect of the minimum age for buying tobacco and the effect of the smoke-free working place, in combination with the increase in taxes on tobacco, are examined with time-trend studies investigating the differences before and after introduction of these laws.

To evaluate the law for smoke-free catering business, a cohort of catering businesses are 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 law requiring a minimum age before being allowed to sell tobacco has had the intended effect. The proportion of purchasers of tobacco decreased strongly after the introduction of the law. The decrease was strongest among those young adolescents who consider themselves to be a 'non-smoker'. Among those who smoke, the likelihood of buying tobacco even increased.

The effect of the introduction of the smoke-free work environment is 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 this law.

There appeared to be a strong effect of the combination of a workplace smoking ban with tax increases on smoking behaviour of those with paid work. The results indicate that a combination of measures to reduce smoking may have more effect than each of these measures separately.

For those with no paid work no effects of the tax increases could be found. For the other research questions data collection and analysis is still in progress.

Output

Verdonk-Kleinjan WMI, RA Knibbe, B Bieleman, HN Groot, H de Vries (2008) The tobacco sales ban and tobacco purchases by adolescents: a general population study. *European Journal of Public Health*, 1-6

Verdonk-Kleinjan WMI, RA Knibbe, FES Tan, MC Willemsen, HN de Groot, H de Vries (2009) Does the workplace smoking ban eliminate differences in risk for environmental tobacco smoke exposure at work?. *Health Policy*, 92, 197-202.

Verdonk-Kleinjan WMI, Candel MJJM, Knibbe RA, Willemsen MC, Vries H de (2011) Effects of a workplace smoking ban in combination with tax increases on smoking in the Dutch population. *Nicotine & Tobacco Research*, 13, 412-418

Researchers

W Verdonk-Kleinjan (PhD student, VWA), Prof RA Knibbe PhD (promotor), Prof H de Vries PhD (promotor, Maastricht University)

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

Term: January 2007 – December 2012

Financing: Food and Consumer Product Safety Authority (VWA)

37 Smoking in movies: impact on European youth and policy options

Aim and research questions

Longitudinal research suggests that exposure to smoking in movies accounts for as much as half of adolescent smoking initiation in the USA (e.g., Sargent, 2005; Sargent et al., 2005). In European youth the population exposure to smoking in movies and its effects have not been assessed.

This project investigates the impact of exposure to smoking in movies on smoking initiation and current smoking in six European countries.

In addition, we are interested in exposure to alcohol use in movies and adolescents' drinking. Besides the relation between movie exposure and risk behaviour, this project also examines policy options. Currently, smoking in movies is neglected in European tobacco control initiatives. The focus of this project is to develop policy options to incorporate smoking in movies into the European anti-tobacco strategy.

Methods

Six European countries (the Netherlands, Germany, Italy, Iceland, the UK and Poland) participate in this EU-funded project. Longitudinal questionnaire data are collected among 12 to 16-year old students to examine the research questions. Data were collected end 2010/begin 2011.

Results

Results from this project show a cross-sectional association between smoking and alcohol consumption in movies and adolescent smoking and drinking in five out of six countries (no significant association in Iceland). The longitudinal results of this project are in progress and not yet published. Preliminary results show consistent longitudinal relations between movie smoking and drinking and adolescent behaviour.

Output

Hanewinkel R, JD Sargent, EAP Poelen, RHJ Scholte, E Florek, H Sweeting, K Hunt, S Karlsdottir, SH Jonsson, F Mathis, F Faggiano, M Morgenstern (2012) Alcohol consumption in movies and adolescent binge drinking in six European countries. *Pediatrics*, 129

Hanewinkel R, JD Sargent, S Karlsdottir, SH Jonsson, F Mathis, F Faggiano, EAP Poelen, RHJ Scholte, E Florek, H Sweeting, K Hunt, M Morgenstern (In press) High youth access to movies that contain smoking in Europe compared with the USA. *Tobacco Control*

Morgenstern M, EAP Poelen, RHJ Scholte, S Karlsdottir, SH Jonsson, F Mathis, F Faggiano, E Florek, H Sweeting, K Hunt, JD Sargent, R Hanewinkel (2011) Smoking in movies and adolescent smoking: Cross-cultural study in six European countries. *Thorax*, 66, 875-883

Hanewinkel R, JD Sargent, S Karlsdottir, SH Jonsson, F Mathis, F Faggiano, E Poelen, RHJ Scholte, E Florek, H Sweeting, K Hunt, M Morgenstern (2011) Youth access to films that contain smoking in six European countries. *Thorax*, 66, 875-883. [6.53]

Researchers

EAP Poelen PhD (researcher), RHJ Scholte PhD (project leader)

In collaboration with: IFT-Nord, Kiel, Germany; Avogadro University, Novara, Italy; Public Health Institute of Iceland, Reykjavik, Iceland; Medical Research Council, Glasgow, UK; University of Medical Sciences, Poznan, Poland.

Term: November 2009 - December 2011

Financing: European Union

38 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. antismoking socialization). This project focuses on effects of parental anti-smoking socialization practices on adolescent smoking behaviour. Furthermore, this project investigates 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 explores the ways parents might indirectly affect adolescent smoking, since parents may affect their children in their affiliation with particular (smoking) friends, or in their susceptibility to peer pressure.

Methods

Data are gathered from 428 families, consisting of two parents and two adolescent children that were followed for 5 years. This “Family and Health” project, with a total of 6 annual assessments, allows 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 were filled out by all family members.

Results

Results from the first study on the “Family and Health” data 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. The findings suggest that parental smoking-specific communication is associated with adolescent smoking both directly and indirectly by influencing the friends the adolescents will associate with.

In the second study we examined to what extent bi-directional relations exist 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.

In the third study we tested to what extent smoking-specific parenting and changes in this parenting are related to adolescents’ smoking trajectories. Four trajectories were found, consisting of Non-smokers, Increasers, Stable smokers, and Decreasers. 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. These findings imply that prevention programs should focus on reinforcing parents’ smoking-specific socialization, with which the smoking prevalence among adolescents could be reduced.

In the fourth study we examined the role of smoking in the interpersonal environment on the development of nicotine dependence in adolescence. Findings revealed that smoking of sibling and best friend were related to baseline levels of nicotine dependence, but not to the rates of change over time. Of all models, having only smoking friends in the friendship group was related to a faster development of nicotine dependence. These findings highlight the key role of smoking friends in the development of nicotine dependence and suggest that interventions targeted at peers are probably effective in reducing the prevalence of nicotine dependence symptoms among adolescents.

In the fifth study we examined if the effects of peer smoking, family smoking, and parenting on smoking development during adolescence are moderated by personality characteristics of adolescents. Findings revealed that having peers who smoked was associated with an increased likelihood of being a smoker at baseline. Further, significant interactions revealed that adolescents lower in agreeableness were more likely to be a smoker at baseline if they had an older sibling who smoked or if their parents engaged in frequent smoking-related discussions with them and that effective smoking-specific conversation was more strongly related to smoking at baseline among adolescents who were highly emotionally stable. No interactions predicted growth in smoking over time; however, significant main effects showed that growth in smoking was associated with higher levels of extraversion, lower levels of emotional stability, and less effective parental smoking-specific communication. This study highlights the relevance of personality-target interventions and policy programs directed at parents and peers.

In the sixth study, we aimed to examine whether anticipated parental reactions to smoking were related to smoking onset and progression during adolescence. Parental reactions, as anticipated by adolescents, included withdrawal, conflict engagement, disclosing disappointment, and positive problem-solving.

Findings of discrete-time survival analyses indicated no direct association between anticipated reactions at baseline and smoking onset within five years. However, a significant interaction effect was found between parental smoking and anticipated parental disappointment.

This finding indicates that adolescents of non-smoking parents, who expected reactions of annoyance and disappointment, were less at risk for initiating smoking than adolescents from smoking parents who expected such reactions. None of the anticipated parental reactions were significantly related to smoking progression, neither directly nor indirectly. Findings from this study suggest that focusing on anticipated reactions to smoking is probably not the most promising endeavour for effective smoking prevention and intervention.

Apart from the above-described studies on the “Family and Health” data, we conducted three additional studies. In two of these studies we aimed to investigate whether parental smoking was associated with smoking-related play behaviour in young children. For the first study, we asked young children to pretend that they were grown-ups having dinner. They were invited to act out this situation in a play corner with a toy kitchen and a child-sized dining area, including a package of fake cigarettes upon the table. The sample of this study consisted of 100 children between 4 and 8 years of age. The main outcome measure was whether or not a child pretended to be smoking a cigarette. Child and parent reports were used to assess parental smoking. Findings revealed that 37% of the children had at least one “puff” during their play. Children were more likely to pretend to smoke if they reported having smoking parents. Analyses for the model with parent reports on parental smoking did not yield any direct association. Children’s explicit attitudes were unrelated to their smoking-related play behaviour. These findings indicate that young children, who reported having smoking parents, already associate having dinner with an (after-dinner) cigarette. After this study, we conducted a study in which children who reported to have at least one smoking parent were coupled with children who had non-smoking parents. Both children were then asked to pretend that they were adults having a barbeque party. During their role-playing, the children were observed in order to assess their pretend smoking behaviours and to examine whether children of smoking parents were more likely to initiate pretend smoking. Children were tested at their schools. The sample consisted of 206 children aged 4-7 years ($M = 5.14$, $SD = 0.87$), of which 54.4% were girls. The main outcome was whether a child pretended to be smoking and whether the child initiated or followed the other child in this behaviour. Findings revealed that, during their play, 63.6% ($n = 131$) of the children pretended to smoke. Children of smoking parents were more likely to initiate pretend smoking than to follow. In conclusion, through their own smoking, parents appear to be able to influence the way in which their children interact with peers regarding pretend smoking. More specifically, children of smoking parents might instigate smoking among their peers.

The subject of the other additional study was media parenting and smoking. In this study we established the prevalence of having a full parental restriction on watching Restricted movies (R-movies) among a nationally representative U.S. sample of adolescents. Moreover, we examined the bi-directional relationship between parental R-movie restrictions and child’s sensation seeking, and how this interplay is related to smoking initiation. Data were used from a four-wave longitudinal study including 6,522 adolescents (aged 10-14 years). Findings demonstrated that 32% of the U.S. adolescents report to be completely restricted from watching R-movies by their parents. Model findings revealed that child’s sensation seeking was not only directly related to a higher risk for smoking initiation, but also indirectly through their parents becoming more indulgent. Parental restrictions were found to lower the risk of smoking initiation directly and indirectly by changing their child’s sensation seeking. These findings imply that the relation between child’s sensation seeking and parental R-movie restrictions in explaining smoking initiation is bi-directional in nature.

Output

Leeuw de RNH (2011) Speaking words of wisdom and other strategies that parents can apply to keep their children from smoking. Ipskamp drukkers, Enschede [doctoral dissertation]. Available via Radboud Repository: <http://repository.ubn.ru.nl/handle/2066/87170>

Leeuw de RNH, RCME Engels, RHJ Scholte (2010) Parental smoking and pretend smoking in young children. *Tobacco Control*, 19, 201-205

Leeuw de RNH, RCME Engels, AA Vermulst, RHJ Scholte (2008) Do smoking attitudes predict behaviour? A longitudinal study on the bi-directional relations between adolescents' smoking attitudes and behaviours. *Addiction*, 103, 1713-1721

Leeuw de RNH, RCME Engels, AA Vermulst, RHJ Scholte (2009) Relative risks of exposure to different smoking models on the development of nicotine dependence during adolescence: A five-wave longitudinal study. *Journal of Adolescent Health*, 45, 171-178

Leeuw de RNH, JD Sargent, M Stoolmiller, RHJ Scholte, RCME Engels, SE Tanski (2011) Association of smoking onset with R-rated movie restrictions and adolescent sensation seeking. *Pediatrics*, 127, e96-e105

Leeuw de RNH, JD Sargent, M Stoolmiller, RHJ Scholte, RCME Engels, SE Tanski (2011) Interplay between R-rated movie restrictions and sensation seeking explaining smoking initiation. *Pediatrics*, 127, 1-10

Leeuw de RNH, RHJ Scholte, Z Harakeh, JF van Leeuwe, RCME Engels (2008) Parental smoking-specific communication, adolescents' smoking behavior and friendship selection. *Journal of Youth and Adolescence*, 37, 1229-1241

Leeuw de RNH, RHJ Scholte, JD Sargent, RCME Engels (2010) Do interactions between personality and social-environmental factors explain smoking development in adolescence? *Journal of Family Psychology*, 24, 68-77

Leeuw de RNH, RHJ Scholte, AA Vermulst, RCME Engels (2010) The relationship between parental smoking-specific socialization practices and developmental smoking trajectories of adolescents: How are changes in parenting related to changes in smoking? *Psychology and Health*, 25, 999-1021

Leeuw de RNH, M Verhagen, C de Wit, RHJ Scholte, RCME Engels (2011) "One cigarette for you and one for me" Children of smoking and non-smoking parents during pretend play. *Tobacco Control*, 19, 201-205

Leeuw de RNH, RCME Engels, AA Vermulst, RHJ Scholte (2008) De longitudinale relatie tussen de houding ten opzichte van roken en het rookgedrag zelf: wat leidt tot wat? [The longitudinal relationship between smoking attitudes and behaviour: Which is guiding what?] *Psychologie & Gezondheid*, 36, 200-208

Leeuw de RNH, RCME Engels, RHJ Scholte (2009) Jong geleerd, oud gedaan? Roken van ouders en gespeeld rookgedrag van jonge kinderen. [Learning young, learning fair? Parental smoking and pretend smoking in young children.] *Tijdschrift voor Orthopedagogiek*, 48, 471-482

Researchers

RNH de Leeuw PhD (researcher), prof RCME Engels PhD (promotor), RHJ Scholte PhD (copromotor)

In collaboration with: Dartmouth Medical School, University of Oregon, USA

Term: April 2006 - March 2011

Financing: Dutch Cancer Society

Domain Hazardous behaviors

Internet use

39 Development of an assessment tool for game addiction in clinical practice

Aim and research questions

Video game addiction is a relatively small, but probably growing phenomenon. Practitioners in Dutch addiction care centers are increasingly confronted with young (often male) adolescents. Consequently, there is a need for validated, well-studied, clinical assessment tools to assess the clinical extent of the problems for those claiming to suffer from game addiction. The development and standardization of such a tool will provide insight into the nature, severity and extent of the problems associated with video game addiction.

Methods

The goal for the current project is to develop an assessment tool to measure video game addiction in young adults or adolescents in addiction care. The instrument includes the DSM-IV and upcoming DSM-V axes, with a special emphasis on the axis I problems, which include addiction and related behaviors such as video game addiction. The current project aims to design and pilot test an assessment tool by combining existing theories and thinking on video game addiction with the professional opinion of various therapists who have experience in dealing with video game addiction.

Results

Results are expected in 2012.

Output

-

Researchers

AJ van Rooij PhD(researcher), GJM Meekerk (researcher), TM Schoenmakers PhD (project leader)

Term: September 2011 - April 2012

Financing: Volksbond Foundation Rotterdam

40 Quantitative and qualitative study on excessive internet use among adolescents – part of the EU NET ADB study

Aim and research questions

The internet has become one of the most widely accessible media and is a significant part of everyday life, especially among adolescents. However, excessive use of the internet may instigate potential adverse psychosocial effects and there is a risk for developing internet addictive behavior. Problematic internet behavior is now considered a serious public health issue globally, although there is no consistent, internationally accepted definition for this excessive behavior and there are large differences in prevalence rates between countries.

The objectives of this study are 1) to evaluate the prevalence and determinants of problematic internet behavior, and 2) to assess the factors which may lead to the development of internet addictive behavior. Similar data are collected in seven different European countries; IVO is responsible for data collection in the Netherlands, for dissemination of knowledge from the project within the Netherlands, and member of the research team of the EU NET ADB project.

Methods

For the first research question, a cross-sectional study design is applied. Anonymous self-report questionnaires were completed by adolescents at schools, during one school hour (duration 40-50 min).

To assess the factors which may lead to the development of internet addictive behavior, the second research question, a qualitative research approach is applied. In-person individual semi-structured interviews (duration 40-50 min) were conducted with adolescents with an excessive internet use, by experienced interviewers.

In addition, the adolescents filled out questionnaires (duration 35 min) prior to and 4 months after the interview, to assess the development and stability of patterns of their internet use and problems.

Results

For the quantitative cross-sectional study, 1338 Dutch adolescents of in total 60 schools were included between January 1 and March 7 2012. For the qualitative part of the study, 16 Dutch adolescents were included between July 14 2011 and February 22 2012. Data of all countries will be analyzed by the Greek and German research teams. The final results will be available at the end of summer 2012.

Output

-

Researchers

L Veldhuis MSc (researcher), M Altenburg MSc (research assistant February 2011-October 2011), L van Duin MSc (research assistant since October 2011), TM Schoenmakers PhD (project leader)

In collaboration with: The Central Authority for Media and Communication in Rhineland Palatinate (LMK), The Outpatient Clinic of Computer Game and Internet Addictive Behaviour Mainz (CCIA), Clinic of Psychosomatic Medicine and Psychotherapy at the University of Mainz, National and Kapodistrian University of Athens (N.K.U.A.) / Adolescent Health Unit (A.H.U.) Second Department of Paediatrics, The University of Akureyri Research Centre, Nobody's Children Foundation (NCF), University of Medicine and Pharmacy Iasi, Department of Psychiatry, Protegeles

Term: February 2011 - January 2013

Financing: Safer Internet Program of the European Union

41 Tailored game advice [gameadviesopmaat.nl]

Aim and research questions

It is established that a small group of adolescents has trouble controlling their game use. Moreover, a small proportion of adolescents even develops problems with game use that warrant clinical treatment. As part of the 2011 PhD thesis 'Online video game addiction. Exploring a new phenomenon', a measure was developed which aims to assess the level of game addiction – the Video game Addiction Test (VAT). The current project translates this test to a website aimed at adolescents. The main aim is to provide professionals, teachers, and students themselves with a starting point in dealing with this issue. They can fill out the questionnaire and will receive feedback based on their score on the VAT. Generally, the feedback tells them that (a) there is nothing to worry about, (b) they should be careful with their gaming behavior, but it is not problematic at this point, or (c) they should seek help because their behavior shows serious signs of compulsivity. In the latter case, contact information on addiction care institutes in their area is offered.

Methods

A new website, www.gameadviesopmaat.nl will be constructed around the VAT. The majority of Dutch addiction care clinics have agreed to participate in the project by providing referral information for parents and placing outgoing links to the website: Brijder (Parnassia Bavo Groep); Centrum Maliebaan; Context (Parnassia Bavo Groep); De Hoop ggz; Iriszorg preventie; Jellinek; Mondriaan; Novadic Kentron; Tactus; Vincent van Gogh voor GGZ; and VNN.

Results

The website has been designed, is operational, and is currently being pilot tested. It will be available to the general public from March 2012.

Output

-

Researchers

AJ van Rooij PhD (researcher), TM Schoenmakers PhD (project leader)

Term: February 2011 - July 2013

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

42 Internet use within schools: 2006-2011

Aim and research questions

The longitudinal Monitor Study Internet and Youth is designed to study internet use and internet addiction in Dutch adolescents.

While the main project focuses increasingly on scientific knowledge, initiatives were taken to facilitate further dissemination of results within the Netherlands towards professionals, policymakers and parents. One of these initiatives is the ongoing collaboration with the Kennisnet Foundation, and the inclusion of questions which aim at utilization of the internet within the classroom and for educational purposes.

Methods

Yearly, the monitor study includes a representative sample of Dutch adolescents aged 10-15 years. Data collection for the fifth measurement took place in April 2011. From the third measurement and onwards, only secondary schools participated in the study. The sixth measurement in 2011 consisted of thirteen schools, including six new schools (when compared to 2010). Participation in the study means that the adolescents fill out a paper questionnaire in the classroom, under the supervision of their teacher. Instructions are provided for the teacher, and questionnaires are returned in closed white envelopes to increase the anonymity of responses entered.

Results

The full report contains a wide variety of comparisons and multi-year trends and reveals the increasing use of the internet for day-to-day schoolwork between 2006 and 2011. It was published in the public domain by Kennisnet as follows:

Output

Van Rooij AJ (2011) Internet op School 2006-2011: Zes jaar internetgebruik in de klas [Developments in internet use in schools over six years]. Rotterdam: IVO i/o Kennisnet (Zoetermeer)

Researchers

AJ van Rooij PhD (researcher), TM Schoenmakers PhD (project leader)

Term: February 2011 – October 2011

Financing: Kennisnet Foundation; also made possible by financing of the fourth and fifth measurements of the Monitor Internet and youth by the Netherlands Organization for Health Research and Development (*ZonMw*), and the financing of the sixth measurement of the study by Volksbond Foundation Rotterdam

43 Development of a course for the prevention of internet- and game addiction, aimed at prevention workers in addiction care

Aim and research questions

Game and internet use has become a regular part of adolescent life. Recent research findings by IVO and other parties in the field of behavioural addictions can be applied to the prevention of excessive use of the internet and/or video games by translating them to a more accessible format. The current project aims to design a course module for prevention workers in addiction care, with the aim to provide them with the tools to address the issue of 'internet addiction' in a classroom setting, or when interacting with parents.

Methods

Following a brief review of the literature, the course module was constructed in collaboration with two addiction care facilities (Mondriaan, Tactus), Utrecht University, and the Trimbos Institute.

Results

The module is constructed, and a pilot training session was held at the two participating institutions (Mondriaan, Tactus). Initial results indicate both a need for this course, and the helpfulness of the material. However, field testing is still in progress and a final version of the module will be available September 2012.

Output

Course module 'internet and game addiction' for prevention workers

Researchers

AJ van Rooij PhD (researcher), EG Wits MSc (project leader), Prof H van de Mheen PhD

Term: November 2010 – October 2012

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

44 Beyond arousal: a study on the use and abuse of online pornography in the Netherlands

Aim and research questions

The availability of pornographic stimuli has increased considerably in the last decade through the internet, which appears to be an ideal medium for the distribution of pornography. There are various signals that the ubiquitous, cheap and easy availability of online pornography triggers uncontrolled, obsessive, compulsive or addictive use of online pornography in some internet users. However, national and international studies focusing on this problem are sparse. The present study aims to gain insight into the use and abuse of online pornography in the Dutch adult population. Main research questions are: What pornography is consumed how often and by whom? Secondly: Are there any signs of compulsive use of pornography, and what are the characteristics of these compulsive users?

Methods

Qualitative data were gathered by means of semi-structured interviews with experienced therapists who have dealt with patients struggling with an (online) sex addiction.

Furthermore, an online survey in a large representative sample (n=1951) of the Dutch population (aged 18 years and older) provided information on the use and abuse of online pornography in the Dutch adult population. The survey contained questions on the actual use of online pornography and instruments to assess compulsive online behaviour and personality features (e.g. impulsivity, sensitivity to reward and punishment, and depression).

Results

Almost 1 in 5 males and 1 in 50 females watch online pornography at least once a week. Most regular users are single males aged 18-50 years: 40% of them spend at least once a week on online pornography, including approximately 20% at least 3-5 times a week.

Although therapists do see compulsive or addictive use of online pornography this is a small minority of patients; however, the number may be increasing. Within the study sample, about 1% of the males reported that they felt fairly addicted and 8% a little bit addicted to online pornography. Among women, addiction to online pornography did not appear to be an issue. Compulsive users were more often male and single, and less satisfied with their relationship and sex life, even though they had a more active sex life and had more sex partners. Compulsive pornography users also appeared to show more depressive symptoms and signs of neuroticism.

Output

Meerkerk GJ, DVM van den Ende, M Altenburg, TM Schoenmakers (2011) *De opwindning voorbij. Aard, ernst en omvang van gebruik en problematisch gebruik van online pornografie in Nederland [After the arousal. Nature, severity and extent of use and problematic use of online pornography in the Netherlands]*. Rotterdam: IVO.

Researchers

GJ Meerkerk PhD (researcher), TM Schoenmakers PhD (project leader), M Altenburg MSc (researcher), DVM van den Ende MSc (researcher)

Term: November 2010 – May 2011
Financing: Volksbond Foundation Rotterdam

45 Neurocognitive aspects of online game addiction: the role of cognitive control**Aim and research questions**

Computer game addiction is characterized by compulsive online gaming behavior and diminished control over the gaming behavior. Prolonged compulsive gaming may result in psychological, social, and occupational or learning problems. In contrast to the emerging knowledge on the neurocognitive mechanisms of alcohol and drug addiction, the neurocognitive mechanisms behind game addiction are poorly understood. The main goal of the present proposal is to examine neurocognitive mechanisms that may help to explain why some gamers become addicted to computer games.

The study is based on the theory that both reward sensitivity and lack of behavioral inhibition play a major role in the development and maintenance of addictive behaviors. Further, it elaborates on studies suggesting an important role for these brain structures which are thought to regulate, mediate and inhibit reward-related stimulus driven responses.

The research focuses on the question: Is game addiction related to deficiencies in the areas known to be involved in reward processing and behavioral inhibition: the mesolimbic reward circuit, dorsal prefrontal cortex, and anterior cingulate gyrus?

Methods

The mesolimbic and prefrontal functioning of two groups of participants are compared: gamers scoring high on compulsivity vs. gamers scoring low on compulsivity, whereby compulsivity is measured by means of the Video game Addiction Test. The two groups are compared using fMRI scanning techniques while performing tasks (Stroop task and Go/NoGo).

Results

Data collection and analysis are in progress.

Output

-

Researchers

GJ Meerkerk PhD (researcher), M Luijten (researcher, Erasmus University Rotterdam), TM Schoenmakers PhD (project leader), Prof I Franken PhD (project leader, Erasmus University Rotterdam), A van der Lugt PhD (advisor Erasmus Medical Centre Rotterdam), J van der Geest PhD (advisor Erasmus Medical Centre Rotterdam)

In collaboration with: Erasmus University, Erasmus Medical Centre Rotterdam
Term: September 2009 – September 2011
Financing: Volksbond Foundation Rotterdam

46 Monitor Internet and youth: data collection 2009-2011**Aim and research questions**

During the last 10 years, Internet use has become the most important leisure time activity among Dutch adolescents. On average, Dutch adolescents aged 13-14 years spent about 16 hours a week on Internet use for private purposes. However, until now, few Dutch studies have been conducted on this subject, and none of these studies have used representative samples. Moreover, few studies have used a longitudinal research design.

These methodological shortcomings limit conclusions about the Internet use of Dutch adolescents.

They also indicate a need for more systematic research, in which a representative sample of Dutch adolescents in secondary school is followed for a longer period of time. Therefore, the Monitor Study Internet and Youth has a longitudinal research design and includes a representative sample of Dutch adolescents in the age range 10-15 years. The monitor started in 2006 and until 2010 five measurements were carried out. The specific aim of the fourth and fifth measurement of the monitor was to obtain specialized knowledge about the phenomenon of Video Game Addiction. The fourth measurement for the Monitor Internet and Youth was conducted in April 2009, while the fifth measurement was conducted in April 2010.

In 2011, the sixth measurement of the study focused primarily on data collection and included multi-application and mobile internet use, while the aim for 2012 (seventh measurement) will be to extensively update the study (given recent developments with tablet computers and wireless internet), collect data and publish on both in 2011 and 2012.

Areas of focus in this fundamental research project include:

- Prevalence and incidence of excessive online video game usage
- Developments over time in excessive gaming
- Multi-use or co-morbidity when compared to substance use and other internet applications
- Risk factors (personal and environmental) which might contribute to developing excessive gaming
- Consequences of excessive gaming
- The question of diagnosis and terminology – can excessive gaming be viewed as a behavioral addiction?

Methods

Data collection for the fourth measurement took place in April 2009 in a sample of ten schools. The fifth measurement in 2010 again included ten schools and included four new schools (when compared to 2009). The sixth measurement in 2011 consisted of thirteen schools, including six new schools. Participation in the study means that the adolescents fill out a paper questionnaire in the classroom, under the supervision of their teacher. Instructions are provided for the teacher, and questionnaires are returned in closed white envelopes to increase the anonymity of responses entered.

Results

The following points present a summary of the main findings derived from the research project

- Out of the various internet activities that adolescents use, the playing of online games has the strongest association with a measure of internet addiction (*Compulsive Internet Use*)
- Approximately 3% of online gamers can be viewed as 'game addicted'. They report having trouble quitting the game, play more than intended, do not sleep enough, think they should game less, and have a decrease in school performance. Translated to all Dutch adolescents aged 13-16 years, this number translates to 1.5% or 12,000 adolescents.
- Guided by these findings, a new questionnaire was developed for the measurement of game addiction, the Video game Addiction Test (VAT). The VAT comprises various elements, namely a loss of control, conflicts, salience, mood modification, and withdrawal symptoms.
- 'Videogame addiction' is associated with various negative psychosocial problems such as increased depressive mood, social anxiety, loneliness, and a more negative self-esteem. But it seems that having good friendships – even online friendships – can have some beneficial effects on this relationship.

For more details, we refer to the following publication, which discusses the results in-depth:

Rooij van AJ (2011) Online video game addiction. Exploring a new phenomenon [PhD Thesis]. Rotterdam, The Netherlands: Erasmus University Rotterdam & IVO Reeks 69. Retrieved from <http://repub.eur.nl/res/pub/23381/>

Output

The project has resulted in a wide variety of output, including a PhD thesis, scientific publications, widespread press coverage, and various presentations and brief courses on the subject. Some recent publications associated with the study are summarized below.

Rooij van AJ, TM Schoenmakers, RJJM van den Eijnden, D van de Mheen (nd) Online video gameverslaving: verkenning van een nieuw fenomeen. *[Submitted]*

Rooij van AJ, TM Schoenmakers, RJJM van den Eijnden, AA Vermulst, D van de Mheen (nd) Videogame Addiction Test (VAT): Validity and psychometric characteristics. *[Submitted]*

Rooij van AJ, TM Schoenmakers, RJJM van den Eijnden, AA Vermulst, D van de Mheen (nd) Video game addiction and adolescent psychosocial wellbeing: the role of online and real-life friendship quality. *[Submitted]*

Rooij van AJ (2011) *Online video game addiction. Exploring a new phenomenon [PhD Thesis]*. Rotterdam, The Netherlands: Erasmus University Rotterdam & IVO Reeks 69. Retrieved from <http://repub.eur.nl/res/pub/23381/>

Rooij van AJ, TM Schoenmakers, RJJM van den Eijnden, D van de Mheen (2010) Compulsive internet use: The role of online gaming and other internet applications. *The Journal of Adolescent Health*, 47(1), 51-57. doi:10.1016/j.jadohealth.2009.12.021

Rooij van AJ, TM Schoenmakers, AA Vermulst, RJJM van den Eijnden, D van de Mheen (2011) Online video game addiction: Identification of addicted adolescent gamers. *Addiction*, 106(1), 205-212. doi:10.1111/j.1360-0443.2010.03104.x

Van Rooij AJ, TM Schoenmakers, D van de Mheen (2011) Factsheet Monitor Internet en Jongeren 2006-2010. Nederlandse jongeren op internet: applicaties, (overmatig) gebruik, en de relatie met middelengebruik. Rotterdam: IVO. Retrieved from <http://bit.ly/nvZozc>

Van Rooij AJ, J Jansz, TM Schoenmakers (2010) Wat weten we over ... effecten van games. Een beknopt overzicht van wetenschappelijk onderzoek naar de effecten van games [What is known about effects of games A brief overview of research into the effects of games]. Zoetermeer: Stichting Kennisnet. Retrieved from <http://bit.ly/hmR4DF>

Researchers

AJ van Rooij PhD (researcher), TM Schoenmakers PhD (copromotor), Prof H van de Mheen PhD (promotor), RJJM van den Eijnden PhD (copromotor, Utrecht University, IVO until 31-05-2008)

Term: Monitor Internet and Youth November 2005 - July 2011
Fourth and fifth measurement January 2009 - July 2011
Sixth measurement January 2011 - July 2011

Financing: Fourth and fifth measurement (2009 & 2010: Netherlands Organization for Health Research and Development (*ZonMw*))
Sixth measurement (2011): Volksbond Foundation Rotterdam

Domain Hazardous behaviors

Gambling

47 ALICE RAP: Addicton and Lifestyles in Contemporary Europe – Reframing Addictions Project

Aim and research questions

ALICE RAP (Addiction and Lifestyles in Contemporary Europe - Reframing Addictions Project) is a five-year European research project, co-financed by the European Commission that brings together over 100 scientists from more than 25 countries and 29 different disciplines. It aims to strengthen scientific evidence to inform the public and political dialogue and to stimulate a broad and productive debate on current and alternative approaches to addictions.

The project is divided into 7 areas and 21 work packages, making up an integrated multidisciplinary research strategy.

IVO participates in Work Area 3 on determinants of addiction, which consists of three work packages, which focus on the:

1. Initiation of regular substance use and gambling
2. Transitions to negative consequences of substance use and gambling
3. Transitions to reductions in substance use and gambling or chronic relapse.

Methods

Each of the three work packages will commence with experts producing a series of short discipline-specific papers, reviewing the current knowledge on determinants of the different addictions. IVO specifically works on the subject of gambling.

The discipline reviews will be integrated into a synthesis report, which will be discussed among the participants.

Results

First results will be available spring 2012.

Output

-

Researchers

CS van der Zwaluw PhD (researcher), GJ Meerkerk PhD (researcher), CTM Schrijvers PhD (project leader), prof H van de Mheen PhD (supervisor)

In collaboration with: A Allamani (Agenzia Regionale Di Sanita), B Baumberg (University of Kent), M Casus Brugué (Institut Catala de la Salut Huvh), G Buehringer (IFT Insitut fur Therapieforschunggem GMBH), S Forberger (Technische Universitaet Dresden), L Kraus (IFT Insitut fur Therapieforschunggem GMBH), AR Lingford-Hughes (Imperial College of Science, Technology and Medicine), P Meier (The Univeristy of Sheffield), D Nutt (Imperial College of Science, Technology and Medicine), J Rehm (Technische Universitaet Dresden), R Room (Stockholms Universiteit), V Asumussen (Aarhus University), R Wiers (Universiteit van Amsterdam), B Bjerger (Aarhus University), J Holmes (The University of Sheffield), T Besednjak Valič (School of Advanced Social Studies), T Ponk (Universiteit van Amsterdam), FJ Eiroá-Orosa (Institut Catala de la Salut Huv)

Term:

May 2011 - April 2014

Financing:

European Commission

Domain Hazardous behaviors

Risky nutritional behavior

48 Environmental determinants of dietary behaviours of children, the IVO Nutrition and Physical Activity Child cohort (INPACT)

Aim and research questions

The main objective is to investigate the environmental determinants of dietary behaviour of children aged 10-12 years.

Research questions are:

1. Which environmental determinants influence the dietary behaviours of children aged 10-12 years?

Environmental determinants include determinants at the micro level and apply to the:

- Physical neighbourhood environment (availability of food shops and take-away restaurants)
- Political environment (school food policy)
- Economic environment (price of fruit and vegetables in the neighbourhood)

2. Does the influence of determinants of dietary behaviours vary among children in different socioeconomic groups?

Methods

This study is an extension of the ongoing INPACT study (IVO Nutrition and Physical Activity Child cohort, started in 2008). The INPACT study is a longitudinal study with a 4-year follow-up. The extension consists of 2 measurements of the INPACT study (measurement 3 in 2010 and measurement 4 in 2011) focusing on the physical, economic and political environmental determinants that might influence dietary behaviour of children.

The INPACT cohort consists of 1844 primary school children and their parents (first measurement) living in Eindhoven and surrounding areas. Data collection takes place through 91 schools in the areas. Outcome measures are: consumption of fruit, vegetables, sugar sweetened soft drinks, snacks, fast food and breakfast.

Data among children and parents are collected through questionnaires (objective data on height and weight are collected by means of body measurements of the children). Objectively measured data on the environmental characteristics of the neighbourhood are gathered through neighbourhood observations. Data on school policy determinants are collected by means of semi-structured interviews with school directors and teachers.

Results

In 2011 the final round of data collection took place. A total of 1431 parents and 1575 children participated in this measurement. Furthermore, we collected data of neighbourhood characteristics. The neighbourhood observations took place in the city of Eindhoven. We observed the availability and types of food outlets that sell fruit and vegetables, the availability and price of five types of fruit and vegetables, and the availability of food outlets that sell fast food or takeaway meals.

In 2011, we also worked on a paper focussing on the association between the home food availability of fruit and vegetables, parental perceptions of the local food environment and children's fruit and vegetable intake. In this cross-sectional study, 1501 primary caregivers completed a questionnaire to measure child's fruit and vegetable consumption, the availability of fruit and vegetable at home and parental perceptions of the local food environment (price, quality and availability of fruit and vegetables in shops). Data in this study were measured using the parental questionnaire of 2010 (third wave of the data collection of the INPACT study).

Most of the children did not consume the recommended amounts of 2 pieces of fruit a day or 150 grams of vegetables a day. In most households fruit or vegetables were always available. The home availability of fruit and vegetables was positively associated with children's fruit and vegetable intake. Negative parental perceptions of the local food shopping environment were associated with less fruit available at home. No significant associations were found between parental perceptions of the local food shopping environment and children's fruit and vegetable consumption.

Interventions focusing on improving the home availability of fruit and vegetables may contribute to an increase of children's fruit and vegetable consumption. However, more knowledge on the factors influencing the home availability of fruit and vegetables is required.

In 2012 we expect the results of the neighbourhood observation study and the results of the interviews with principals and teachers of food policy in primary schools.

Output

Ansem van WJC, CTM Schrijvers, G Rodenburg, D van de Mheen (submitted) Is there an association between the home food environment, local food environment and children's fruit and vegetable intake? Results from the Dutch INPACT study

Researchers

WJC van Ansem MSc (researcher), Prof H van de Mheen PhD (promotor), CTM Schrijvers PhD (copromotor), A Oenema PhD (advisor, Department of Health Promotion Maastricht University), Prof AJ Schuit PhD (advisor, National Institute for Public Health and Environment RIVM)

In collaboration with: Maastricht University, National Institute for Public Health and Environment (RIVM)

Term: April 2010 - October 2012

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

49 Ethnic differences in overweight and obesity among primary school children in the Netherlands, the IVO Nutrition and Physical Activity Child cohort (INPACT)

Aim and research questions

In the Netherlands, the prevalence of overweight and obesity is higher in migrants. These prevalence rates also apply to children. Although Dutch figures on migrant children are scarce, available evidence shows a higher prevalence in migrant than in native Dutch children. In order to design effective prevention programmes, knowledge is needed on the factors affecting overweight and obesity in children, especially in modifiable factors. The present study addresses these factors in children aged 7/8 – 11/12 years old, focusing on ethnic differences in these factors. The hypothesis is that parental behaviour is the link between environment on the one side, food intake and physical exercise of children on the other side. Although information is available on the role of some aspects of parental behaviour, the role of other aspects remains unclear (e.g. the role of rewarding children with specific foods). Also, the influence of own parental role behaviour with respect to eating and physical activity is unclear.

The present PhD project addresses what the ethnic differences are in modifiable factors affecting overweight and obesity in Dutch primary school children (aged 8-12), focusing on the role of parental influence in the relation between environment and food intake and physical exercise.

Main research question are:

1. What is the prevalence of overweight and obesity and of (un)healthy eating and exercise patterns among migrants children as compared to Dutch children? To what degree these differences reflect socioeconomic difference?
2. Are there differences in eating and exercise behaviour between native and migrant children? To what degree do these differences reflect socioeconomic differences and to what degree they reflect differences in parental educational styles?
3. Are there differences in the relative importance of environmental and parental factors in the development of overweight and between native and migrants children? How do parental and environmental factors interact in the development of overweight and obesity in migrant children?

Methods

This is a four-year longitudinal cohort study in which body weight and height of children are measured (N=1,844). 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 took place from September to December 2008; the second from September to December 2009, the third from September to December 2010.

Results

Findings show that overweight and obesity are significantly more prevalent among migrant children. Parental BMI was an important predictor of child BMI. However, socio-economic position was not. Because children from migrant origin are at higher risk for overweight and obesity, insight in differences in both physical activity, and energy intake, and how they relate to cultural contrasts in parental beliefs and practices, is needed.

Output

Labree LJW, H van de Mheen, FFH Rutten, M Foets (In press) Differences in overweight and obesity among children from migrant and native origin: a systematic review of the European literature. *Obesity Reviews*.

Researchers

LJW Labree (PhD student, Erasmus University Rotterdam), Prof H van de Mheen PhD (promotor), Prof F Rutten PhD (promotor, Erasmus University Rotterdam), MME Foets PhD (copromotor, Erasmus University Rotterdam)

In collaboration with: Erasmus University Rotterdam

Term: 2008 - 2012

Financing: Erasmus University Rotterdam

50 How beauty ideals influence our self-appraisal: effects of media on body image

Aim and research questions

Many women in the Western world are dissatisfied with their bodies. This is of great concern, given the relationship between body dissatisfaction and the development of eating disorders, social phobias and depression. One of the major contributors to body image dissatisfaction is the extremely thin beauty ideal that is promoted by the media.

Although this ideal is unrealistic, unhealthy and unattainable for most women, women feel pressurized to live up to this ideal, feel themselves lacking and experience negative effects. Indeed, numerous studies have demonstrated the detrimental effects thin-ideal media have on women's body image. However, not all women are negatively affected by the thin ideal. For some women the thin ideal works in an inspiring way, leading to more positive self-evaluations. But which individual characteristics determine whether one is positively or negatively affected by thin-ideal media?

Study 1

The first study investigated the effect of sexually objectifying music video exposure on bodily self-perception in females, and the moderating role of self-esteem.

Methods

Fifty-six normal weighted female participants were either exposed to three sexually objectifying music videos, or three neutral music videos.

Perceived and ideal body size were measured both before and after video exposure, using horizontally stretched and compressed photographs of the participant's own body in swimming garment.

Results

As expected, self-esteem moderated the relationship between music video exposure and bodily self-perception. Only women low in self-esteem were negatively affected by the sexually objectifying content of the music videos: they perceived themselves as bigger and showed an increased discrepancy between their perceived and ideal body size after video exposure. For the neutral music video condition, there was no effect of self-esteem. This study showed that exposure to sexually objectifying music videos has detrimental effects on the way women perceive their own body, but only in women with low self-esteem. These findings suggest that high self-esteem can protect women against the adverse effects of sexually objectifying media.

Study 2

Paying attention towards thin and beautiful media models can have detrimental effects on women's self-evaluation. This study aimed to *reduce* the amount of attention that women give to potentially threatening appearance-related information by challenging and opposing the sociocultural norms for appearance. Furthermore, the moderating role of self-esteem in this process was investigated.

Methods

Seventy-three female participants either received norm-confirming, norm-challenging, or no information regarding the sociocultural norms for appearance. Subsequently, nine advertisements, three of which were appearance-related (depicting a thin and attractive model, plus an appearance-related product), and six advertisements with neutral content were used to measure females' visual attention towards appearance-related stimuli using an eye-tracker.

Results

Results showed that when no information or norm-confirming information was received, women with lower self-esteem paid more attention towards the appearance-related advertisements than women with higher self-esteem. Importantly, however, when norm-challenging information was received, this bias in attention was largely reduced, even to the extent that women with lower self-esteem paid *less* attention towards the appearance-related advertisements than women with higher self-esteem. These results indicate that challenging the sociocultural norms for appearance can change the amount of attention that low self-esteem women give to appearance-related media.

Studies 3 and 4

In two experiments, we investigated the role of individual characteristics (like self-esteem, body dissatisfaction, and internalization of the thin ideal) on females' visual attention towards women of different body sizes.

Methods

Female participants (young adults in study 3, primary school children in study 4) were exposed to several female bodies, varying in body size from being underweight to obese. The amount of attention participants directed at each body was measured using an eye-tracker.

Results

Data analyses are in progress.

Output

-

Researchers

IHS Mischner MSc (PhD student), Prof RCME Engels PhD (promotor), H van Schie PhD (copromotor, Radboud University Nijmegen), Prof D Wigboldus PhD (copromotor, Radboud University Nijmegen)

In collaboration with: Radboud University Nijmegen

Term: November 2008 – November 2013

Financing: Radboud University Nijmegen

51 Peer influence on food choice and intake in children

Aim and research questions

People consume their meals and snacks in the presence of their caregivers, siblings, or peers at home or at school. As children become adolescents, peers become more important role models relative to parents. The aim of this 4.5-year PhD project is to investigate peer influence (by means of social modeling studies) in food choice and actual food intake in children and early adolescents. Food choice and intake in relation to social modeling behavior is examined in conjunction with individual characteristics. The results contribute to the improvement of the prevention of unhealthy eating patterns, i.e. through school policy or parental education of youngsters.

Methods

Data are gathered in several experimental and (longitudinal) correlational studies conducted at schools and in food shops. Peer influence and social modeling will be tested by use of 'confederates', i.e. real instructed or remote non-existent peers. Other data are collected via questionnaires.

Results

- Although children are inclined to choose familiar food products, a remote peer can alter the food choice in favor of unfamiliar food products. Especially healthy unfamiliar products are turned down whereas children are more open to try unfamiliar unhealthy food products.
- Teenage girls follow unhealthy food purchases of a peer during shopping. In addition, girls who reported to be hungry purchased higher kcal food products in general.
- Overweight participants were found to be triggered to (over)eat when a peer eats a high amount of snack food, whereas the food intake of normal weight participants seemed to depend on whether the confederate did actually eat, regardless of the amount. In general, participants were found to use other's food intake as a social guideline which still served as a food norm a few days later.
- Normal-weight as well as overweight participants were more likely to eat in direct response to the confederates' eating than without such an eating cue. More specifically, normal-weight participants became less sensitive to eating cues of a peer whereas overweight participants became more sensitive to these cues during the 10-minute experimental session.

Output

Bevelander KE, DJ Anschütz, RCME Engels (2011) Social modeling effects in teenage girls in supermarkets. *Appetite* 57 (1), 99-104

Bevelander KE, DJ Anschütz, RCME Engels (2012) The effect of a fictitious peer on young children's choice of familiar versus unfamiliar low and high energy-dense foods. *British Journal of Nutrition* 1 (1), 1-8

Bevelander KE, DJ Anschütz, RCME Engels (2012) Social norms in food intake among normal weight and overweight children. *Appetite* (accepted and online available)

Bevelander KE, A Lichtwarck-Aschoff, DJ Anschütz, RCJ Hermans, RCME Engels (under review) Imitation in food intake among normal-weight and overweight children

Hermans RCJ, A Lichtwarck-Aschoff, KE Bevelander, PC Herman, JK Larsen, RCME Engels (2012) Mimicry of food intake: the dynamic interplay between two eating companions. *PlosONE* 7 (2) 1-6

Researchers

KE Bevelander MSc (PhD student), DJ Anschütz PhD (project leader, University of Amsterdam), Prof RCME Engels PhD (promotor)

In collaboration with: University of Amsterdam

Term: September 2008 – June 2013

Financing: Radboud University Nijmegen

52 Relationship between parental behaviour and overweight in primary school children in the Netherlands, the IVO Nutrition and Physical Activity Child cohort (INPACT)

Aim and research questions

The INPACT study aims to gain insight in the influence of parents on weight development of children aged 8-12 years. The study started in 2008 and focuses on the home environment concerning eating and physical activity. The home environment can 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 of INPACT is: Which - modifiable – parental 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 demographic 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 factors that are modifiable.

Methods

This is a four-year longitudinal cohort study in which body weight and height of children are measured (n=1,844). Questionnaires are filled in with school children 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 took place from September to December 2008, the second from September to December 2009, the third from September to December 2010 and the final from September to December 2011.

Results

In 2011, we worked on a paper focusing on the role-modeling influence of parents on child fruit consumption. We examined the association between parental and child fruit consumption in the context of general parenting, parental education and ethnic background.

Based on the data collected in the autumn of 2008, we conducted a cross-sectional study among 1,762 parent-child dyads. Mean age of the children was 8 years. One parent completed a questionnaire to measure their own and their child's fruit consumption, parenting style, education level and ethnicity. In mediation and moderation analyses, child fruit consumption was regressed on parental fruit consumption, parenting style, parental education and ethnicity.

Participating children consumed on average 7.5 pieces of fruit per week. Of the children, 14% met the recommended Dutch norm of two pieces of fruit per day. Parental and child fruit consumption were positively associated. The association was more pronounced under higher levels of psychological control and behavioural control, and among ethnic groups. Additionally, parental education and child fruit consumption were positively associated. Parental fruit consumption partially mediated this association.

Interventions are needed to increase child fruit consumption. Interventions should focus on increasing parental fruit consumption and positive parental modelling, with particular focus on low-SES families. Additionally, interventions that combine positive modelling with positive general parenting skills (e.g. increasing behavioural control) may be more effective than interventions that focus on parental modelling alone.

A paper on parental feeding styles (e.g. emotional feeding, instrumental feeding, encouragement to eat, control over eating) in relation to child dietary behaviours and weight, and a paper on children's appetitive behaviours in relation to child dietary behaviours and weight are expected in the first half of 2012.

Output

Rodenburg G, SPJ Kremers, A Oenema, H van de Mheen (2011) Psychological control by parents is associated with a higher child weight. *International Journal of Pediatric Obesity*, 6(5-6), 442-449. doi:10.3109/17477166.2011.590203

Rodenburg G, A Oenema, SPJ Kremers, H van de Mheen (accepted). Parental and child fruit consumption in the context of general parenting, parental education and ethnic background. *Appetite*. doi:10.1016/j.appet.2011.11.001

Researchers

G Rodenburg MSc (PhD student), SPJ Kremers PhD (copromotor, Maastricht University), A Oenema PhD (copromotor, Erasmus Medical Centre Rotterdam, Maastricht University), Prof H van de Mheen PhD (promotor)

In collaboration with: Erasmus Medical Centre Rotterdam, Maastricht University

Term: March 2007 – July 2012

Financing: Erasmus Medical Centre Rotterdam, Netherlands Organization for Health Research and Development (*ZonMw*), IVO

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 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 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

A series of experiments is conducted 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 make use of small room furnished as a living room. 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 had 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.
- To test whether young males are also vulnerable to social modeling, we conducted a study among male students. It was found that only the males who were hungry, modeled the intake of the same-sex confederate. This finding suggests that men have to be in a state of hunger before social modeling processes come to the fore, whereas women's default response seems to be modeling the intake of the other person.
- To examine whether social modeling affects food intake in situations for which a pre-existing norm for appropriate intake already exists, we conducted a study on modeling of breakfast intake in young women. It was found that participants only ate less when their eating companion ate nothing, whereas they did not eat more when the other ate a small or large amount of breakfast. This study suggests that social modeling might be restricted to situations in which the norm for appropriate intake is unclear.

- We experimentally tested the effects of manipulating portion size and the intake of others on young women's meal intake during a 20-min eating opportunity. Both portion size and the confederate's intake influenced young women's intake. Participants consumed more when offered a larger portion than when offered a smaller portion, and they also ate more when their eating companion ate more. The results extend previous research by suggesting that the effect of the intake of others may add to the portion-size effect, resulting in greater intake in young women. Thus, both types of situational norms might guide an individual's intake during a single eating occasion.

Output

- Hermans RCJ, JK Larsen, CP Herman, RCME Engels (2008) Modeling of palatable food intake in female young adults. Effects of perceived body size. *Appetite*, 51, 512-518
- Hermans RCJ, JK Larsen, RCME Engels (2008) Zien eten doet eten: een experimentele studie naar imitatie van eetgedrag bij jonge vrouwen. *Psychologie & Gezondheid*, 36, 191-199
- Hermans RCJ, JK Larsen, CP Herman, RCME Engels (2009) Effects of social modeling on young women's nutrient-dense food intake. *Appetite*, 53, 135-138
- Hermans RCJ, RCME Engels, JK Larsen, CP Herman (2009) Modeling of palatable food intake: The influence of quality of social interaction. *Appetite*, 52, 801-804
- Hermans RCJ, CP Herman, JK Larsen, RCME Engels (2010) Social modeling effects on snack intake among young men: The role of hunger. *Appetite*, 54, 378-383
- Hermans RCJ, RCME Engels, JK Larsen (2010) Een goed begin van de dag: een experimentele studie naar imitatie-effecten van eetgedrag. *Psychologie & Gezondheid*, 36(4), 163-170
- Hermans RCJ, CP Herman, JK Larsen, RCME Engels (2010) Social modeling effects on young women's breakfast intake. *Journal of the American Dietetic Association*, 110, 1901-1905
- Hermans RCJ, JK Larsen, CP Herman, RCME Engels (2010) Effects of portion size and social modeling on food intake of young women. *Appetite*, 54(3), 649 (abstract)
- Hermans RCJ, JK Larsen, CP Herman, RCME Engels (2010) Social modeling of food intake. An overview of three experimental observational studies. *Appetite*, 55(13), 167 (abstract)
- Hermans RCJ, KE Bevelander, RCME Engels, JK Larsen (2011) Het effect van portiegrootte en het eetgedrag van anderen op het eetgedrag van jonge vrouwen. *Nederlands Tijdschrift voor Voeding & Diëtetiek*, 66(5), s1-s7
- Hermans RCJ, A Lichtwarck-Aschoff, JK Larsen, CP Herman, RCME Engels (2011) Rhythm in food intake: The effects of the intake of others on young women's food intake in micro-perspective. *Appetite*, 57(2), 560 (abstract)
- Hermans RCJ, JK Larsen, CP Herman, RCME Engels (2011) The Breakfast Pub: The inhibitory effect of a no-intake model on actual intake. *Appetite*, 57(2), 537 (abstract)
- Hermans RCJ, JK Larsen, CP Herman, RCME Engels (2012) How much should I eat? Situational norms affect young women's food intake. *British Journal of Nutrition*, 107(4), 588-595
- Hermans RCJ, A Lichtwarck-Aschoff, KE Bevelander, CP Herman, JK Larsen, RCME Engels (2012) Mimicry of Food Intake: The Dynamic Interplay between Eating Companions. *PLoS One*, 7(2), art.-e31027
- Hermans RCJ, JK Larsen, K Lochbuehler, C Nederkoorn, CP Herman, RCME Engels (accepted) The power of social influence over food intake: Examining the effects of attentional bias and impulsivity. *British Journal of Nutrition*

Researchers

RCJ Hermans MSc (PhD student), JK Larsen PhD (copromotor), Prof CP Herman PhD (copromotor, University of Toronto), Prof RCME Engels PhD (promotor)

In collaboration with: University of Toronto

Term: 2007 - 2012

Financing: Radboud University Nijmegen

Domain Social relief system and social care

54 Substance misuse and dependency by youth: evaluation of implementation of early detection tools and skills

Aim and research questions

In this project the guideline early detection (Snoek, Wits, Van de Mheen, Wilbers, 2010) is used to shape the collaboration between Addiction Care Tactus and the regional Youth Care Agency. The aim of this evaluation project is to find out to what extent early detection tools and skills are implemented and to see what the role of the guideline has been in this process (see also project 54).

Methods

The project leader of the project keeps a written record of their activities. For this, a format has been developed based on the major steps in the guideline. Two university students conduct face-to-face interviews with selected staff members and an online survey among all staff members of the Youth Care Agency in order to find out what norms on substance use prevail and how a screening instrument could be integrated in the working process. A one-day training course for staff of the Youth Care Agency is scheduled. After the training a second series of interviews and a second survey will be held in order to estimate the impact of the training.

Results

Expected in September 2012

Output

-

Researchers

C Barendregt (researcher), EG Wits (project leader)

Financing:

Scoring Results (*Resultaten Scoren*), Tactus Addiction Care Centre

Term:

November 2011 - September 2012

55 Early detection of substance misuse and dependency by youth: implementation of a guideline

Aim and research questions

In 2010 the guideline on early detection of substance misuse and dependency was published by *Resultaten Scoren* (Snoek, Wits, Van de Mheen, Wilbers, 2010). To promote the use of this guideline example projects are needed that operate, or are willing to operate, according to the guideline (see also project 53). Four of the submitted projects were approved.

The aim of this evaluation project is to examine whether or not adjustments to the guidelines should be made. The research questions focus on a comparison between everyday practice of the targeted prevention projects and the guidelines.

Methods

The participants in the study keep a written record of their activities. For this, a format has been developed based on the major steps in the guideline. In addition, telephonic interviews are held with principal stakeholders involved in the prevention projects. In two of the projects, university students conduct face-to-face interviews and perform analyses under supervision of IVO researchers. Three meetings are scheduled in which project leaders of all participating organisations meet and discuss the implementation processes

Results

Expected in February 2013.

Output

-

Researchers

C Barendregt (researcher), EG Wits (project leader)

Financing: Scoring Results (*Resultaten Scoren*)

Term: November 2011 - February 2013

56 Client participation in addiction care

Aim and research questions

In 2010 the national client network *Het Zwarte Gat* (The Black Hole) and the network of directors of addiction care institutions agreed that 'social recovery' and 'quality of life' should be the guiding principles in the approach to addiction treatment and care. To promote that agreement (social) experiments will be set-up or allocated, to experience and test recovery-oriented activities in which experiential (tacit) knowledge of clients will be incorporated.

In this research project, 4 of the 13 allocated projects will be evaluated in a collaboration between IVO and *Het Zwarte Gat*.

Methods

The evaluation is based on the principles of responsive evaluation (Guba & Lincoln 1989; Amba, 2005). This implies that the evaluation approach is grounded on learning rather than on judging. The researcher's attitude is not one of an objective and distant outsider, but is participative and concerned. Researchers undertake 'participant observations' in team meetings, followed by written and oral feedback. Various stakeholders involved in the projects (professionals and clients) are interviewed using semi-structured questionnaires. During the research period, three workshops with the project group and representatives of the projects (clients and professionals) are held in order to learn from one another's experiences. In these sessions, the researchers participate both as researchers and project members who provide input in order to promote achievement of the project goals.

Results

The project does not produce traditional research results in the form of conclusions and recommendations. During the project our input has already influenced the course of some projects. At the end of the study a report is produced that includes an agenda for discussion with the major stakeholders of each project: this is expected in autumn 2012.

Output

-

Researchers

C Barendregt (researcher), EG Wits (project leader)

In collaboration with: Knowledge network The Black Hole (*Het Zwarte Gat*), Organization for client participation

Term: September 2011 - January 2013

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

57 Strengths and weaknesses in the care given to clients from homeless shelters in Rotterdam

Aim and research questions

Care to homeless people has drastically changed in the past few years. In 2006 the Strategy Plan for Social Relief officially started in the four largest cities of the Netherlands: Amsterdam, Rotterdam, The Hague, and Utrecht. This approach has proven to be effective in reducing homelessness. Existing and new clients receive an individual program plan focused on their personal needs.

The municipality of Rotterdam is in charge of the (residential) care given to homeless people in Rotterdam and wanted to improve their care. This study aimed at investigating clients' experiences with the care that was given to them at the start of their individual program plan.

Strengths and weaknesses were identified with regard to the care given to clients within homeless shelters. Important aspects were client interaction, counseling, communication and information, and living conditions in the shelter

Methods

All seven homeless shelters in Rotterdam were visited, and four locations were selected for further research. Further research indicated that a researcher made observations in the shelter during several nights. At every shelter, eight clients were invited to participate in a focus group interview regarding the strengths and weaknesses of the care given to them. Based on the observations and focus group interviews, a short questionnaire was developed. A total of 70 clients of five shelters in Rotterdam were administered this questionnaire in a structured interview.

Results

Overall, clients of homeless shelters in Rotterdam had fairly positive experiences with the care given to them. Important points to consider were the communication about the individual program plan, duration of drafting and approval of the individual program plan, limited availability of shelter employees and several practical points such as size of the lockers. Results of this study can be used to improve the care for homeless people at the start of their individual program plan.

Output

Hammink A, C Schrijvers (2011) Goed af in de nachtopvang?! Sterke en zwakke punten in de zorg en begeleiding van cliënten van de Rotterdamse nachtopvang. Rotterdam: IVO

Researchers

AB Hammink MSc (researcher), CTM Schrijvers PhD (project leader)

Term: March 2011 - June 2011

Financing: Municipality of Rotterdam

58 Detection of alcohol abuse and psychiatric problems among homeless people

Aim and research questions

The number of homeless people in homeless organizations (MO) was estimated at 57,000 in 2006 (VWS, 2008). Moreover, the percentage of homeless people with alcohol dependence and/or a mental disorder is very high. However, only a minority of the respondents in these studies were referred to specialist care.

This is troubling, and it should be noted that alcohol abuse can lead to physical disorders, brain damage, and mental and social problems. Early detection of clients with an alcohol problem speeds up treatment, which should increase the standard of living.

Given the high prevalence of alcohol abuse and mental disorders among homeless people there is much to be gained from effective early detection and subsequent timely care.

A 2006 pilot study by IVO developed and tested a screener to facilitate such detection in the city of Rotterdam. It was tested for overall quality in terms of sensitivity and specificity. If a screener correctly detects a high percentage of clients with a disorder it is said to be sensitive, and if it correctly detects a high percentage of clients with no disorder it is said to be specific.

The two statistics are related: more sensitivity results in lower specificity. For alcohol abuse the 2006 screener was found to be highly sensitive and specific, but for depression and psychotic disorders there was room for improvement. More specifically, too many people would be referred to care for these disorders if the screener was the only source of information. The current project aims to develop better screener items for depression and psychoses. Additionally, it aims to test if the alcohol items do equally well in a wider sample, in preparation for nationwide use of the screener.

Methods

The proposed project consists of three phases in which a screener is developed and tested. In Phase I, a literature study is performed to obtain a preliminary selection of screener items that will be tested in Phase II. The (international) literature will be searched for shorter and longer questionnaires which are commonly used for detection of alcohol abuse, depression and psychotic disorders.

Specifically, we search for instruments that are brief and have a high sensitivity and high specificity. Based on the review of the literature, a selection of questionnaires will be chosen. This selection will serve as the foundation for the questionnaire which will be tested in Phase II of the project. This questionnaire will also include the most effective items from the screener which was developed in the earlier (2006) screener study. Finally, in Phase III, the usefulness of the screener will be examined by testing it in two MO institutions.

Results

The project is currently in progress; data collection will be completed in spring 2012; Phase III is planned for summer 2012 and results are expected end 2012.

Output

-

Researchers

AJ van Rooij PhD (researcher), C Barendregt MSc (researcher, project leader since 11/2011), EG Wits (project leader until 11/2011)

In collaboration with: Various institutions for social care

Term: September 2010 – December 2012

Financing: NutsOhra Fund, Volksbond Foundation Rotterdam

59 Cohort study amongst homeless people in Amsterdam, The Hague, Rotterdam and Utrecht (the G4) – Coda-G4

Aim and research questions

In 2006 the Strategy Plan for Social Relief officially started in the four largest cities of the Netherlands: Amsterdam, Rotterdam, The Hague, and Utrecht. The Strategy Plan aims to improve the situation of the homeless, the neglected and the deprived, and at the same time to reduce the nuisance caused by this group. This is done by realising a person-oriented approach whereby the homeless are included in an individual assistance program. All four cities have a central application facility to which the target group of the Plan has to report before a social care program can be outlined. Existing and new clients receive program plans focused on their individual care needs.

The question arises as to whether the homeless benefit from these individual assistance programs, and who does (not). This question is addressed in a longitudinal cohort study, financed by the Ministry of Health, Welfare and Sport.

The main objectives are to determine: 1) the needs and urges of homeless people who participate in the individual assistance program, in relation to their background and problems; 2) possible improvements, and predictors of improvement, in the objective and subjective quality of life of homeless people; 3) housing transitions as well as possible predictors of stable housing; and 4) perceived benefits by the homeless of their participation in the individual assistance programs.

Methods

A multi-site observational cohort study will be conducted. Homeless people who qualify to participate in the individual assistance program while living in Amsterdam, Rotterdam, The Hague or Utrecht (i.e. the respondents) will be followed for 30 months. During this period they will be interviewed four times using a structured interview, to establish what changes take place in their situation and functioning. A baseline measure is followed by three measures; after 6 months (T1), 18 months (T2) and 30 months (T3). The baseline data are used to determine the predictors of improved subjective quality of life and stable housing.

Information on their situation and functioning will be collected at two moments during these 30 months by the counselor who is closest to the respondent at that moment.

Results

The first results are expected in the first half of 2012.

Output

-

Researchers

B van Straaten MSc (PhD student), CTM Schrijvers PhD (copromotor), Prof H van de Mheen PhD (promotor), J van der Laan MSc (PhD student, Radboud University Nijmegen Medical Centre), SN Boersma PhD (copromotor, Radboud University Nijmegen Medical Centre), Prof J Wolf (promotor, Radboud University Nijmegen Medical Centre)

In collaboration with: Nijmegen University Medical Centre, Social Care Research Centre (*Omz*)

Term: February 2010 – February 2015

Financing: Ministry of Health, Welfare and Sport (*VWS*)

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

Aim and research questions

Intensive community-based care is intended for clients who do not make use of available health care services despite having serious problems on several life areas, such as addiction, psychiatric disorders, housing and finance. Many forms (or models) exist. Studies have shown that intensive community-based care improves the living circumstances of individuals with complex problems. However, reviews have shown that the evidence is inconclusive, and only tentative conclusions can be drawn regarding the active ingredients of intensive community-based care, for various reasons. First, the large differences in practice make it difficult to compare and interpret the results of separate studies.

Second, lack of specification of the range of services provided or the model of intensive community-based care used, complicates comparison of the findings. Therefore, there is a lack of knowledge on what components of intensive community-based care are responsible for the effects found.

The research questions are: "What are the effects of intensive community-based care for persons with complex psychiatric or substance use problems on problem severity, quality of life, regular healthcare services use and engagement?", "Are there differences in effect between the teams studied", "Can these differences be explained by differences in form/model?", and "Are there differences in effect for persons with substance use problems versus persons without substance use problems?".

Methods

The study has a naturalistic, prospective follow-up research design. Three intensive community-based teams are included that are comparable on important components considering the corporate strategy: target population, organization structure, type of services, major aim and way of recruitment of clients. However, the teams are also supposed to differ regarding a few elements; this makes their comparison more interesting as it helps elucidate the consequences of the similarities and differences for the effects.

The service information is used to help explain the differences or similarities in effect that are found. All clients that entered the intensive community-based teams from November 2008 to April 2011 are included in the study (n=523). Assessments are carried out for each client at entrance, at discharge, and after a follow-up period of six months. For clients staying six months or longer, additional assessments were done every half year from entrance.

Measures included are: problem severity, engagement with healthcare services, regular healthcare services use, and quality of life. Team characteristics are measured with the Intensive Community-Based Care Program Characteristics (ICPC). The ICPC is a descriptive instrument, developed in the Netherlands, to profile an intensive community-based care team on all its relevant features, including items on the organization, healthcare process, staff and objectives.

Results

Analyses are being made: results are expected summer 2012.

Output

-

Researchers

DPK Roeg PhD (project leader), M Voogt MSc (researcher), Prof LAM van de Goor PhD (advisor), Prof HFL Garretsen PhD (advisor)

In collaboration with: Community-Based Care Teams of Mental Health Care (GGZ) Oost Brabant, Community-Based Care Team Eindhoven, Community-Based Care Team Tilburg, Novadic-Kentron Addiction Care, Municipal Health Authority "Hart voor Brabant"

Term: April 2008 – September 2012

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

61 Evaluation of pilot project: Family group conference (Eigen Kracht) for former homeless

Aim and research questions

Family group conferencing (*Eigen Kracht*) for ex-homeless people is rooted in the experience with this method among young people in contact with youth protection service. In family group conferencing, an independent conference coordinator organizes a network meeting with friends and family of a person concerned. The general aim is to reduce problems and strengthen the informal support network. This pilot project aims to implement the method within the social relief and addiction service for adults.

The research questions are:

- How is the family group conference for former homeless implemented?
- What social benefits are apparent three months after the conference?
- What mechanisms make family group conferences beneficial for former homeless people?

Methods

The pilot project is evaluated using the basic assumption of realistic evaluation (Pawson & Tilley, 1997). The assumption is that the outcome of an intervention can only be understood if both the context and the mechanism are taken into account.

The aim was to monitor a total of 25 cases. However, preliminary results indicated that the care and treatment services that should deliver candidates are reluctant to cooperate, leading to relaxation of the eligibility criteria, which resulted in failure to organize a conference.

Over time, only eight conferences were organized in a period of 16 months. This small number gave rise to a change in the assignment. The remaining time was spent in establishing why service providers were reluctant to cooperate. Ten open interviews with people involved with the project were carried out, including professionals responsible for implementation, treatment and service providers and client representatives.

Results

It appeared that the Municipal Health Authority had not sufficiently gained and assured support from the management of the care and treatment services. This made successful implementation too dependent on cooperative individuals at the execution level.

Another reason is that one organization refused to collaborate. Client representatives of this organization considered the intervention proposed unsuitable for this particular target group whose network is too small and too vulnerable to restore.

Output

Risselada A, C Barendregt, CTM Schrijvers (2010) *Terugblik op het proefproject 'Eigen Kracht conferenties voor voormalig dak- en thuislozen in Rotterdam*. Rotterdam, IVO. (Internal report)

Researchers

A Risselada MSc (researcher), C Barendregt MSc (researcher), CTM Schrijvers PhD (project leader)

Term: October 2009 – February 2011

Financing: Municipal Health Authority Rotterdam-Rijnmond

62 Care for young homeless people with severe mental health problems

Aim and research questions

In the Netherlands, the care for young homeless people with severe mental health problems is still inadequate. In Rotterdam, the current situation concerning the care for this target group is being investigated in order to:

1. Obtain knowledge on the gaps in care for young homeless people (aged 18-23 years) with severe problems, such as mental health problems, addiction, or minor learning disabilities, and
2. Develop a suitable offer of (residential) care for these categories of young homeless people.

Methods

The research combines several strategies:

Analysis of documents and interviews with key informants;

1. A longitudinal study following 55 young homeless people who sought help from the Rotterdam social care organizations in 2009. After baseline measurements (October 2009-February 2010), two follow-up measurements took place at 6 months (April-July 2010) and 1 year (October-December 2010) after the baseline measurement. The young people and their closest mentors were interviewed.
2. Respondents were interviewed about their home situation during childhood, health (both mental and physical); financial situation; education; daily activities; need for care; use of care; use of alcohol and drugs.
3. Inventory of bottlenecks and developments among professional in the circuit of care for young homeless people.

Results

The longitudinal study shows that most of the participants reported improvement in living situation, psychological complaints, appreciation of life in general compared to baseline. Improvement of functioning was confirmed by the mentors of the participants compared to baseline. Daily activities, criminal activities, and alcohol and drug use did not change significantly compared to baseline. The financial situation, notably debts, worsened compared to baseline. Analysis of the match between offer and demand for care showed that dental care, and support in finding appropriate work or study, are among the highest levels of unmet needs after one year of care. The unmet need for assistance with repayment of debts has decreased after one year of care.

Qualitative analysis of the match between offer and demand for care distinguishes three groups: 1) a group in which offer and need for care are well balanced; this group includes some severe cases who are embedded in firm care structures and includes some fragile cases with low motivation/passive young people, 2) a group of fragile cases includes people at risk to become homeless again; care providers express a lack of grip on these young people, 3) a third group has become homeless again: offer and need did not match. Care providers state that these people were not motivated and violate house rules over and over again.

The inventory of bottlenecks and developments underline the earlier finding that professionals lack methodological tools to deal with drug use, aggression, low motivation and learning disabilities. On a structural level a lack of specialized housing for such cases was mentioned as a bottleneck to effectively provide appropriate care for cases with severe multiple problems. The municipal direction of collaboration between institutions concerned was generally appreciated by professionals. Main recommendations are further professionalization of staff and an increase in the offer of specialized housing.

Output

Barendregt C, CTM Schrijvers, JE Baars, D van de Mheen (2011) Zorg voor zwerfjongeren met ernstige problematiek Onderzoek naar de aansluiting tussen zorgvraag en zorgaanbod in Rotterdam. Rotterdam: IVO.

Researchers

C Barendregt MSc (researcher), JE Baars PhD (researcher, till 4/2010), CTM Schrijvers PhD (project leader), Prof H van de Mheen PhD (supervisor)

Term: April 2009 – June 2011

Financing: Municipality of Rotterdam; Volksbond Foundation Rotterdam

Other

63 Inventory of cooperation between youth addiction care and youth partnerships

Aim and research questions

Vulnerable young people are characterized by an accumulation of problems, often caused by common risk factors. Therefore, prevention of substance abuse in young people requires a broad, comprehensive approach. 'Scoring Results' aims to develop guidelines, protocols and interventions for selective and indicated prevention, treatment and care for vulnerable young people with substance abuse and addiction. To this end, the IVO is preparing an overview of existing integral approaches within partnerships in this field. 'Scoring Results' is a nationwide program in which addiction care organisations and researchers work together to increase evidence-based practices in addiction care.

Aims of the project are:

- 1) to provide an overview of partnerships between youth services directed at problematic substance use, including bottlenecks and success factors of these initiatives;
- 2) to provide a description of the nature, content and the work process of four best practices, resulting in a set of criteria cooperative relationships should satisfy to provide an integral, conclusive addiction care program.

The final report is aimed at managers and staff in youth addiction care, child welfare agency, youth (mental) health care, and policy staff of municipalities and ministries (VWS, OCW).

Methods

The project consists of three elements:

- a) Inventory of cooperative relationships, desk research

Professionals in youth addiction care are questioned about formal and informal partnerships with child welfare agencies and youth (mental) health care. Bottlenecks and success factors for partnerships are identified. In addition, relevant documents studied.

- b) Selection of four best practices

The responses arising from (a) should offer insight into the criteria that a partnership must meet to organize an integral, conclusive program. Next, the criteria are used to determine which of the examples found (most) meet these criteria.

- c) Description of four best practices

The question of how effective cooperation can be achieved is answered by the detailed description of four best practices and an evaluation of the formulated criteria. For this purpose four best practices are monitored for a period of several months and described.

Results

Data collection and analysis are in progress. In autumn 2012 the final report will be available.

Output

-

Researchers

C Couwenbergh PhD (researcher), EG Wits MSc (project leader)

Term: September 2011 – September 2012

Financing: Scoring Results

64 Effectiveness study Safe, Strong & Onwards

Aim and research questions

Safe, Strong & Onwards (SSO) (*Veilig, Sterk & Verder*) is a newly developed ecological intervention for families in which physical child abuse takes place. SSO is based on the view that physical child abuse is an interactional problem between parents and their children. Based on this view, parents as well as children receive treatment.

Treatment for children focuses on reducing trauma symptoms and behavioral problems. Treatment for the maltreating parent focuses on developing parenting skills and improving emotional functioning. For the non-maltreating parent treatment focuses on being supportive of the child, and strengthening communication and parenting skills.

The goal of this ecological approach is to improve the quality of the parent-child relationship in order to create a safe home situation in which physical abuse no longer occurs.

The aim of this study is to evaluate the effect of SSO on the above-mentioned outcomes. Secondly, specific determinants of treatment effects will be examined. With the study results the SSO treatment program can be improved and empirical support can be gathered and strengthened regarding ecological treatment for families in which physical child abuse has occurred.

Methods

The study focuses on the effects of SSO on parents and their children (4-16 years). The study will include 10-15 families. Measurements will take place before, during, and after the intervention (6 and 12 months), using questionnaires, interviews, and observational tasks. Effectiveness of the intervention will be established in terms of statistical and clinical significant change in the outcome measures.

Results

Families have not yet been included. Final results will be available in 2014.

Output

-

Researchers

MSV Choenni MSc (researcher), CTM Schrijvers PhD (project leader), prof H van de Mheen PhD (promotor)

In collaboration with: De Waag, Centre for Outpatient Forensic Psychiatry (Haarlem)
Child and Adolescent Trauma Centre (Haarlem)
Youth Care Agency (Haarlem)

Term: September 2011 - December 2014

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

65 A pilot study on the effectiveness of the e-learning “Talking with your child”

Aim and research questions

Parental communication is found to play a crucial role when it comes to the onset of drinking and smoking. To strengthen parents in their communication, we developed the online course “Talking with Your Child”, which includes short movie clips and interactive assignments to train parent-adolescent communication skills. In the current pilot study, the impact of this e-learning on parental communication skills is examined using a randomized controlled trial (RCT) design.

Methods

A total of 219 parents with adolescent children ($M = 13.29$ years; $SD = 0.82$) were included. Of these parents, 110 were randomly assigned to the experimental condition and 109 to the control condition. Parents in the control condition received information brochures about parenting and substance use by mail. Before and after the intervention, in September and November 2011 respectively, parents filled out an online questionnaire.

Results

Findings demonstrated that parents participating in the experimental condition, compared to the parents in the control condition, reported improvement of their communication skills.

Output

Leeuw RNH de, JEE Verdurmen, M Kleinjan, NMC van As, IGH Schulten, RCME Engels (2012)
Results of a pilot study on the effectiveness of the e-learning "Talking with Your Child".
In preparation

Researchers

RNH de Leeuw PhD (researcher), M Kleinjan PhD (project leader), prof RCME Engels PhD (project leader)

In collaboration with: Netherlands Institute of Mental Health and Addiction (*Trimbos Institute*)

Term: April 2011 - February 2013

Financing: Netherlands Institute of Mental Health and Addiction (*Trimbos Institute*)

66 Routine outcome measurement (ROM): Community based care (*bemoeizorg*)**Aim and research questions**

Routine outcome measurement (ROM) is the regular assessment of clients' health status. Use of ROM is supposed to improve the quality and transparency of care. Its use is increasingly common in mental healthcare and addiction care, but not in intensive community-based care. Intensive community-based care is intended for clients who do not make use of available health care services despite having serious problems on several life areas, such as addiction, psychiatric disorders, housing and finance. The nature of this type of care (outreaching, ad hoc character, clients are hard to reach and engage) makes implementation of ROM difficult.

The aim of this study is to evaluate the effects of implementation improvement strategies for ROM in intensive community-based care.

Methods

A number of ROM improving activities is implemented in an intensive community-based care team. These activities are based on both the Australian experiences with ROM improvement in this field and previous experiences with the use of ROM of the team themselves.

The team previously used ROM lists for an effect study. The activities included the following. First, staff received training in using the ROM data in practice, e.g. for client assessment and monitoring. Second, a new ROM instrument was developed especially for this type of care, as earlier experience shows that the existing ROM instruments do not completely match the information needs of staff. Third, a local ROM implementation coordinator was appointed and responsibilities were shifted from the research team to the local staff in order to enlarge the intrinsic motivation for working with ROM. Fourth, the registration system for ROM was integrated with the regular registration system of the team and output was made user-friendly (e.g. with the use of graphic presentations of ROM data). Effects of the activities are measured at T0 (before implementation) and T1 (10 months after implementation). Outcome measures are: response on the ROM lists (the number of clients for whom lists are filled out), and a scale 'use of ROM data'. This scale includes 9 items on the use by staff of ROM data in practice on a 5-point response scale ranging from 1 (never) to 5 (always). Overall score ranges from 9-45.

Results

Data are being collected: results are expected September 2012. The study will result in a handbook for ROM in intensive community-based care.

Output

-

Researchers

DPK Roeg MSc (project leader), E Pallast MSc (researcher, Tilburg University), Prof HFL Garretsen PhD (advisor)

In collaboration with: Community Based Care Team Tilburg (*Bemoeizorgteam Tilburg*)

Term: March 2011 – October 2012

Financing: Netherlands Organization for Health Research and Development
(ZonMw)

67 Evaluation of a universal school-based depression prevention program for adolescents

Aim and research questions

The main goal of the project is to test the effectiveness of *Op Volle Kracht* (OVK) in preventing the onset of symptoms of depression during adolescence. A second goal of the study is to identify the mechanisms by which the program effects are obtained.

In this project we aim to answer the following research questions:

1. Is OVK effective in preventing the onset of symptoms of depression during adolescence (ages 13-14 years) compared to the control group?
2. Are the intervention effects moderated by adolescents' gender and age?
3. Are the intervention effects mediated by adolescents' self-efficacy, optimism, hopefulness and coping styles?

Methods

The effectiveness of OVK is tested in a randomized controlled trial with two conditions, an intervention (OVK) and a control condition (care as usual). Schools are randomly assigned to research conditions, stratified by educational level. OVK is incorporated in the school curriculum, maximizing program attendance. OVK consists of 16 lessons of 50 min each, given by trained psychologists to groups of 11-15 students. OVK is strongly based on Cognitive Behavioral Therapy principles, and further teaches social skills, problem solving and decision making. Adolescents in the control condition receive no intervention. Outcomes are measured at 6, 12, 18 and 24 months follow up, to monitor long-term program effects. Primary outcome is level of depressive symptoms, secondary outcomes are: anxiety, hopelessness, cognitive bias, substance use, truancy, life satisfaction, coping, self-efficacy, optimism, happiness, friendship, school performance and school attitude. The questionnaires for students are administered in the school setting. Parents complete a questionnaire at baseline only.

Results

The first results are expected end 2012.

Output

Tak YR, RMP van Zundert, RCWM Kuijpers, BS van Vlokhoven, HFW Rensink, RCME Engels (2012)
A randomized controlled trial testing the effectiveness of a universal school-based depression prevention program 'Op Volle Kracht' in the Netherlands. *BMC Public Health*, 12, 21.
doi:10.1186/1471-2458-12-21

Researchers

YR Tak (PhD student), Prof RCME Engels PhD (promoter), dr RMP van Zundert (copromoter, University of Nijmegen)

In collaboration with: Netherlands Institute of Mental Health and Addiction (*Trimbos Institute*), University of Nijmegen

Term: January 2011 – January 2015

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

68 Victimization among patients with severe mental illness: a nationwide multi-site study

Aim and research questions

This nationwide multi-site cross-sectional study, initiated by Erasmus Medical Centre Rotterdam and Tilburg University, investigates victimization rates and risk factors among persons with severe mental illness. IVO is coordinating the collection of data among 940 patients with severe mental illness.

Methods

At each site a random sample, stratified on sex and age, will be selected. In a structured interview, experiences and consequences of victimization, discrimination and self-stigmatization, perpetration of violence, childhood trauma, symptom severity and co-morbid psychopathology (e.g. anger, PTSD) will be assessed.

Results

Data collection coordinated by IVO will be finalized end March 2012, and then analyzed by researchers of Erasmus Medical Centre Rotterdam. They will compare the findings with a matched sample from the Dutch general population. Additionally, a preliminary conceptual model will be developed.

Output

-

Researchers

A Risselada MSc (researcher), L Veldhuis MSc (researcher, project leader since October 2011), EG Wits MSc (project leader October 2010-October 2011), Prof H van de Mheen PhD (supervisor)

In collaboration with: Erasmus Medical Centre Rotterdam, Tilburg University

Term: October 2010 - March 2012

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

5. Collaboration

Participation in research schools/collaboration universities

IVO participates in several research schools, in which several universities are represented: The Nihes (Netherlands Institute for Health Science, Rotterdam), Tranzo (Research Program Transformation in Care, Tilburg), CaRe (Primary Care Research, Maastricht) and the Behavioural Science Institute (Radboud University Nijmegen). IVO cooperates actively with the Faculty of Psychology of the Erasmus University Rotterdam by the secondment (one-day) of one of the IVO members (Tim M. Schoenmakers, PhD).

External affiliations and representations

Together with the AIAR and the Trimbos Institute, IVO organizes the annual congress FADO (Forum Alcohol and Drug Research).

In the field of international cooperation, IVO plays an active role in the Kjetil 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 Study the ECAS (European Comparative Alcohol Study) and the EMCDDA (European Monitoring Centre for Drugs and Drug Addiction).

Prof. Dr. H van de Mheen (Director of Research & Education) represents the Dutch Ministry of Health, Welfare and Sport (Ministerie van VWS) in the European research platform the Pompidou Group. She is a member of the board of the Association of Public Health and Science, and member of the board of the Dutch Public Health Federation (NPHF). She is also a board member of the Dutch Congress of Public Health (Nederlands Congres Volksgezondheid) and of the scientific advisory board of the National Drug Monitor. Since 2009 she is chairman of the supervisory board of the IVZ Organization Care Information Systems, (*Stichting Informatievoorziening Zorg*). Professor van de Mheen is a member of the expert committee on listing problems following the Opium Act, which was established in 2010 by the Ministry of Health, Welfare and Sport, the Ministry of Security and Justice, and the Ministry of the Interior and Kingdom Relations. She is also a member of the editorial board of the Journal of Addiction (*Tijdschrift Verslaving*), member of the ZonMw program committee "healthy strength" (*Gezonde Slagkracht*), board member of the international Kjetil Bruun Society for alcohol research and member of the advisory committee "Scoring Results" (*Resultaten Scoren*).

6. Organization

Staff 2011

Miranda J Audenaardt	0,7	Director Business Affairs		audenaardt@ivo.nl
prof H Dike van de Mheen PhD	1,0	Director Research & Education		vandemheen@ivo.nl

Support

Martijn Altenburg MSc	0,6	Research assistant Rotterdam	7/2 till 31/12	
Chrisje PG Couwenbergh PhD	0,6	Coordinator Acquisition	till 31/1	
Mieke Derickx	0,4	Research assistant Maastricht		mieke.derickx@maastrichtuniversity.nl
Laura van Duin MSc	0,8	Research assistant Rotterdam	since 4/10	vanduin@ivo.nl
Cindy TJC van der Ent	1,0	Secretary Rotterdam		secretariaat@ivo.nl
Monique de Hoog	0,3	Personal Assistant	14/3 till 30/6 - 15/8 till 14/10	
Robert Koops	0,6	Main Accounting Rotterdam		koops@ivo.nl
Ineke H Zoutendijk	0,6	Human Resources Rotterdam		zoutendijk@ivo.nl

Research

Wilke JC van Ansem MSc	1,0	PhD student Rotterdam		ansem@ivo.nl
Cas Barendregt MSc	0,8	Researcher Rotterdam		barendregt@ivo.nl
Kris Bevelander MSc	0,8	PhD student Nijmegen		k.bevelander@pwo.ru.nl
Leonieke C van Boekel MSc	1,0	PhD student Tilburg	since 1/3	l.vanboekel@tilburguniversity.edu
Jeroen Bommelé MSc	0,8	PhD student Rotterdam		bommele@ivo.nl
Evelien PM Brouwers PhD	0,1	Senior Researcher Tilburg		e.p.m.brouwers@uvt.nl
Vandhana MS Choenni MSc	0,8	Researcher Rotterdam	since 1/9	choenni@ivo.nl
Debby VM van den Ende MSc	0,8	Researcher Rotterdam	till 31/3	
prof Rutger CME Engels PhD	0,2	Professor Nijmegen		r.engels@bsi.ru.nl
prof Henk FL Garretsen PhD	0,2	Professor Tilburg		h.garretsen@uvt.nl
prof Ien LAM van de Goor PhD	0,2	Research coordinator Tilburg		l.vandegoor@uvt.nl
prof Isabela Granic PhD	0,1	Professor Nijmegen		i.granic@pwo.ru.nl
Alice B Hammink MSc	0,8	Researcher Rotterdam	since 1/3	hammink@ivo.nl
Roel CJ Hermans MSc	0,8	PhD student Nijmegen		r.hermans@pwo.ru.nl
Marieke Hiemstra MSc	1,0	PhD student Nijmegen		m.hiemstra@pwo.ru.nl
prof Anja C Huizink PhD	0,2	Professor Nijmegen		a.c.huizink@uva.nl
Meriam MM Janssen MSc	0,5	Science Practitioner Tilburg		m.janssen4@uvt.nl

Jan Joosten PhD	0,1	Researcher Maastricht		jan.joosten@maastrichtuniversity.nl
Marloes Kleinjan PhD	0,7	Researcher Nijmegen		m.kleinjan@pwo.ru.nl
prof Ronald A Knibbe PhD	0,5	Professor Maastricht		r.knibbe@maastrichtuniversity.nl
Renske Koordeman MSc	0,8	PhD student Nijmegen		r.koordeman@pwo.ru.nl
Rowella CWM Kuijpers MSc	0,5	PhD student Nijmegen		r.kuijpers@pwo.ru.nl
Sandra Kuiper PhD	0,6	Science Practitioner Tilburg		s.kuiper1@uvt.nl
Junilla K Larsen PhD	0,4	Assistant professor Nijmegen		j.larsen@pwo.ru.nl
Rebecca HN de Leeuw MSc	0,5	Researcher Nijmegen		r.deleeuw@pwo.ru.nl
Paul HHM Lemmens PhD	0,5	Researcher Maastricht		p.lemmens@maastrichtuniversity.nl
Kirsten C Lochbühler MSc	0,8	PhD student Nijmegen		k.lochbuehler@pwo.ru.nl
Monique Malmberg MSc	0,8	PhD student Nijmegen		m.malmberg@pwo.ru.nl
Suzanne HW Mares MSc	1,0	PhD student Nijmegen		s.mares@pwo.ru.nl
Gert-Jan Meerkerk PhD	0,8	Researcher Rotterdam		meerkerk@ivo.nl
Isabelle HS Mischner MSc	0,8	PhD student Nijmegen		i.mischner@pwo.ru.nl
Karen Offermans PhD	1,0	PhD student Maastricht		karen.offermans@gvo.unimaas.nl
Roy Otten PhD	1,0	Assistant Professor Nijmegen		r.otten@pwo.ru.nl
Saar Pieters MSc	0,8	PhD student Nijmegen		s.pieters@pwo.ru.nl
Evelien AP Poelen PhD	0,5	Researcher Nijmegen		e.poelen@pwo.ru.nl
Linda Ringlever MSc	0,8	PhD student Nijmegen		l.ringlever@pwo.ru.nl
Anneke Risselada MSc	1,0	Researcher Rotterdam	till 14/2	
Gerda Rodenburg MSc	1,0	Researcher Rotterdam		rodenburg@ivo.nl
Diana PK Roeg PhD	0,8	Researcher Tilburg		d.p.k.roeg@uvt.nl
Tony AJ van Rooij PhD	1,0	Researcher Rotterdam		rooij@ivo.nl
Rosalie van der Sar MSc	1,0	PhD student Tilburg		r.vdrsar@uvt.nl
Tim M Schoenmakers PhD	0,9	Research coordinator Rotterdam		schoenmakers@ivo.nl
Ron HJ Scholte PhD	0,5	Assistent Professor Nijmegen		r.scholte@pwo.ru.nl
Carola TM Schrijvers MSc	0,8	Research coordinator Rotterdam		schrijvers@ivo.nl
Kathrin Schuck MSc	1,0	PhD student Nijmegen		k.schuck@pwo.ru.nl
Michelle Snelleman MSc	0,8	PhD student Rotterdam	since 15/3	snellemans@ivo.nl
Renske Spijkerman PhD	0,2	Researcher Nijmegen		r.spijkerman@pwo.ru.nl
Barbara van Straaten MSc	0,8	PhD student Rotterdam		straaten@ivo.nl
Yuli R Tak MSc	0,8	PhD student Nijmegen	since 16/1	y.tak@pwo.ru.nl
Hanneke A Teunissen MSc	1,0	PhD student Nijmegen		h.teunissen@pwo.ru.nl
Dana Tiggelman MSc	1,0	PhD student Nijmegen		d.tiggelman@pwo.ru.nl

Lidy Veldhuis MSc	0,8	Researcher Rotterdam	since 14/2	veldhuis@ivo.nl
Margot Voogt MSc	0,2	Researcher Tilburg	till 31/8	m.voogt@uvt.nl
Carmen Voogt MSc	1,0	PhD student Nijmegen		c.voogt@pwo.ru.nl
Haske van der Vorst PhD	0,8	Researcher Nijmegen		h.vandervorst@pwo.ru.nl
Elske G Wits MSc	0,8	Coordinator Advice and Implementation Rotterdam		wits@ivo.nl
Carmen S van der Zwaluw MSc	0,8	PhD student Nijmegen	till 4/10	
Carmen S van der Zwaluw PhD	0,8	Researcher Rotterdam	since 5/10	

Total fte's Researchers + PhD's 2011	: 37,3
– Total fte's Researchers 2011	: 17,8
– Total fte's PhD's 2011	: 20,3
Total fte's Support 2011	: 5,2

7. Publications

International Journals

Anschutz D, RCME Engels, CS van der Zwaluw, T van Strien (2011) Sex differences in young adults' snack food intake after food commercial exposure. *Appetite* 56:255-260

Baars J, B Boon, HFL Garretsen, H van de Mheen (2011) The reach of a hepatitis B vaccination programme among men who have sex with men. *European Journal of Public Health*. 2011;(21)3:333-337

Bevelander KE, DJ Anschütz, RCME Engels (2011) Social modeling effects in teenage girls in supermarkets. *Appetite* 57 (1), 99-104

Boon B, A Risselada, A Huiberts, H Riper, F Smit (2011) Curbing Alcohol Use in Male Adults Through Computer Generated Personalized Advice: Randomized Controlled Trial. *J Med Internet Res* 13(2):e43

Creemers HE, Z Harakeh, DM Dick, J Meyers, WA Vollebergh, J Ormel, FC Verhulst, AC Huizink (2011) DRD2 and DRD4 in relation to regular alcohol and cannabis use among adolescents: does parenting modify the impact of genetic vulnerability? The TRAILS study. *Drug and Alcohol Dependence*, 115(1-2), 35-42

Eijnden RJJM, H van de Mheen, R Vet, A Vermulst (2011) Alcohol-specific parenting and adolescents' alcohol-related problems: The interacting role of alcohol availability at home and parental rules. *Journal of Studies on Alcohol and Drugs*. 2011;72:408-417

Eisinga R, M te Grotenhuis, JK Larsen, B Pelzer, T van Strien (2011) BMI of interviewer effects. *International Journal of Public Opinion Research*, 23, 530-543

El Marroun H, JJ Hudziak, H Tiemeier, HE Creemers, EA Steegers, VW Jaddoe, A Hofman, FC Verhulst, W van den Brink, AC Huizink (2011) Intrauterine cannabis exposure leads to more aggressive behavior and attention problems in 18-month-old girls. *Drug and Alcohol Dependence*, 118(2-3), 470-474

El Marroun H, H Tiemeier, VW Jaddoe, A Hofman, FC Verhulst, W van den Brink, AC Huizink (2011) Agreement between maternal cannabis use during pregnancy according to self-report and urinalysis in a population-based cohort: the Generation R study. *European Addiction Research*, 17(2), 37-43

Engels RCME, G Slettenhaar, T ter Bogt, RHJ Scholte (2011) Effect of alcohol references in music on alcohol consumption in public drinking places. *American Journal on Addictions*, 20, 530-534 [1.53]

Euser AS, LR Arends, BE Evans, K Greaves-Lord, AC Huizink, IH Franken (2012) The P300 event-related brain potential as a neurobiological endophenotype for substance use disorders: A meta-analytic investigation. *Neuroscience and Biobehavioral Reviews*, 36(1), 572-603

Geelhoed JJ, H El Marroun, BO Verburg, L van Osch-Gevers, A Hofman, AC Huizink, HA Moll, FC Verhulst, WA Helbing, EA Steegers, VW Jaddoe (2011) Maternal smoking during pregnancy, fetal arterial resistance adaptations and cardiovascular function in childhood. *BJOG*, 118(6), 755-762

Gestel-Timmermans van JAWM, EPM Brouwers, IL Bongers, MALM van Assen, Ch van Nieuwenhuizen (2011) Profiles of individually defined recovery of people with major psychiatric problems. *International Journal of Social Psychiatry*. Advance online publication. doi: 10.1177/0020764011412710

- Graham K, S Bernards, RA Knibbe, S Kairouz, S Kuntsche, SC Wilsdnack, TK Greenfield, P Diteze, I Obot, G Gmel (2011) Alcohol negative consequences among drinkers around the world. *Addiction*, 106, 1391-1405
- Griffith-Lendering MF, SC Huijbregts, AC Huizink, J Ormel, FC Verhulst, WA Vollebergh, H Swaab (2011) Social skills as precursors of cannabis use in young adolescents: a TRAILS study. *Journal of Clinical Child and Adolescent Psychology*, 40(5), 706-714
- Hanewinkel R, JD Sargent, S Karlsdottir, SH Jonsson, F Mathis, F Faggiano, E Poelen, RHJ Scholte, E Florek, H Sweeting, K Hunt, M Morgenstern (2011) Youth access to films that contain smoking in six European countries. *Thorax*, 66, 875-883. [6.53]
- Helmink JHM, SPJ Kremers, LC van Boekel, FN van Brussel-Visser, NK de Vries (2011) Factors determining the motivation of primary health care professionals to implement and continue the "Beweeegkuur" lifestyle intervention programma. *Journal of Evaluation in Clinical Practice* 18 (3), 682-688
- Heuvel van den A, RJJM van den Eijnden, AJ van Rooij, D van de Mheen (2011) Meeting online contacts in real life among adolescents: The predictive role of psychosocial wellbeing and internet-specific parenting. *Computers in Human Behavior* 28 (2), 465-472
- Hiemstra M, R Otten, RNH de Leeuw, OCP van Schayck, RCME Engels (2011) The Changing Role of Self-Efficacy in Adolescent Smoking Initiation: A Four-Year Longitudinal Study. *Journal of Adolescent Health*, 48(6), 597-603. doi:10.1016/j.jadohealth.2010.09.011
- Hiemstra M, R Otten, RCME Engels (2011) Smoking Onset and the Time-Varying Effects of Self-Efficacy, Environmental Smoking, and Smoking-Specific Parenting by Using Discrete-Time Survival Analysis. *Journal of Behavioral Medicine*. doi: 10.1007/s10865-011-9355-3
- Kleinjan M, AF Visser, RCME Engels (2011) Into a better understanding of cigarette craving: the role of coping methods and stress in 24h abstinent adolescents. *Journal of Substance Use*, 16, 1-11
- Koordeman R, DJ Anschütz, RB van Baaren, RCME Engels (2011) Effects of alcohol portrayals in movies on actual alcohol consumption: an observational experimental study. *Addiction*; 106: 547-54
- Koordeman R, DJ Anschütz, RCME Engels (2011) Exposure to alcohol commercials in movie theaters affects actual alcohol consumption in young adult high weekly drinkers: an experimental study. *American Journal on Addictions* 20; 285-91
- Koordeman R, EN Kuntsche, DJ Anschütz, RB van Baaren, RCME Engels (2011) Do we act upon what we see? Direct effects of alcohol cues in movies on young adults' alcohol drinking. *Alcohol & Alcoholism*; 46; 393-8
- Kuntsch S, RA Knibbe, E Kuntsche, G Gmel (2011) Housewife or working mum: each to her own? The relevance of societal factors in the association between social roles and alcohol use among mothers in 16 industrialized countries. *Addiction*, 106, 1925-1932
- Kuntsche E, S Kuntsche, RA Knibbe, S Simons-Morton, T Farhat, A Hublet, P Berndtsen, E Godeau, Z Demetrovics (2011) Cultural and gender convergence in adolescent drunkenness. *Archives of Pediatric and Adolescent Medicine*, 165, 152-158
- Labree LJW, H van de Mheen, FFH Rutten, M Foets (2011) Differences in overweight and obesity among children from migrant and native origin: a systematic review of the European literature. *Obesity reviews* 12(5):e535-e547

- Lammers J, F Goossens, S Lokman, K Monshouwer, L Lemmers, P Conrod, R Wiers, RCME Engels, M Kleinjan (2011) Evaluating a selective prevention programme for binge drinking among young adolescents: Study protocol of a randomized controlled trial. *BMC Public Health*, 11, 126
- Leeuw de RNH, JD Sargent, M Stoolmiller, RHJ Scholte, RCME Engels, SE Tanski (2011) Association of smoking onset with R-rated movie restrictions and adolescent sensation seeking. *Pediatrics*, 127, e96-e105
- Leeuw de RNH, JD Sargent, M Stoolmiller, RHJ Scholte, RCME Engels, SE Tanski (2011) The interplay between parental R-movie restrictions and adolescent's sensation seeking and its association with smoking initiation. *Pediatrics*, 127, 96-105. [4.69]
- Leeuw de RNH, M Verhagen, C de Wit, RHJ Scholte, RCME Engels (2011) One cigarette for you and one for me: Children of smoking and non-smoking parents during pretend play. *Tobacco Control*, 20, 344-348. [3.85]
- Leeuwen van AP, FC Verhulst, SA Reijneveld, WA Vollebergh, J Ormel, AC Huizink (2011) Can the gateway hypothesis, the common liability model and/or, the route of administration model predict initiation of cannabis use during adolescence? A survival analysis--the TRAILS study. *Journal of Adolescent Health*, 48(1), 73-78
- Leeuwen van AP, HE Creemers, K Greaves-Lord, FC Verhulst, J Ormel, AC Huizink (2011) Hypothalamic-pituitary-adrenal axis reactivity to social stress and adolescent cannabis use: the TRAILS study. *Addiction*, 106(8), 1484-1492
- Lier van PA, AC Huizink, P Vuijk (2011) The role of friends' disruptive behavior in the development of children's tobacco experimentation: results from a preventive. *Journal of Abnormal Child Psychology*, 39(1), 45-57
- Lochbuehler K, H Voogd, RHJ Scholte, RCME Engels (2011) Attentional bias in smokers: Exposure to dynamic smoking cues in contemporary movies. *Journal of Psychopharmacology*, 25, 514-519 [3.65]
- Malmberg M, G Overbeek, A Vermulst, K Monshouwer, W Vollebergh, RCME Engels (2011) The Theory of Planned Behavior: Precursors of marijuana use in early adolescence? *Drug and Alcohol Dependence* 1;123(1-3):22-8
- Mares SHW, H van der Vorst, RCME Engels, A Lichtwarck-Aschoff (2011) Parental problematic alcohol use and alcohol-specific attitudes, alcohol-specific communication and adolescent problematic drinking: An indirect path model. *Addictive Behaviors*, 36, 209-216. doi:10.1016/j.addbeh.2010.10.013
- Mares SHW, H van der Vorst, A Lichtwarck-Aschoff, I Schulten, JEE Verdurmen, R Otten, RCME Engels (2011) Effectiveness of the Home-Based Alcohol Prevention Program "In Control: No Alcohol!": Study Protocol of a Randomized Controlled Trial. *BMC Public Health*, 11, 622. doi:10.1186/1471-2458-11-622
- Monshouwer K, AC Huizink, Z Harakeh, QA Raaijmakers, SA Reijneveld, AJ Oldehinkel, FC Verhulst, WA Vollebergh (2011) Prenatal Smoking Exposure and the Risk of Behavioral Problems and Substance Use in Adolescence: the TRAILS Study. *European Addiction Research*, 17(6), 342-350
- Morgenstern M, EAP Poelen, RHJ Scholte, S Karlsdottir, SH Jonsson, F Mathis, F Faggiano, E Florek, H Sweeting, K Hunt, JD Sargent, R Hanewinkel (2011) Smoking in movies and adolescent smoking: Cross-cultural study in six European countries. *Thorax*, 66, 875-883
- Nederhof E, HE Creemers, AC Huizink, J Ormel, AJ Oldehinkel (2011) L-DRD4 genotype not associated with sensation seeking, gambling performance and startle reactivity in adolescents: the TRAILS study. *Neuropsychologie* 49, 1484-1492

- Oort van FV, K Greaves-Lord, J Ormel, FC Verhulst, AC Huizink (2011) Risk indicators of anxiety throughout adolescence: the TRAILS study. *Depression and Anxiety*, 28(6), 485-494
- Pieters S, H van der Vorst, WJ Burk (2011) The effect of the OPRM1 and DRD4 polymorphisms on the relation between attentional bias and alcohol use in adolescence and young adulthood, 591-599. *In Developmental Cognitive Neuroscience 1 (4)*
- Pieters S, CS van der Zwaluw, H van der Vorst, R Wiers, W Burk, RCME Engels (2011) Interaction between the dopamine D2 receptor gene and parental rules on adolescents' alcohol use. Resubmitted to Drug and Alcohol Dependence. *Shared first authorship with S Pieters *Neuropsychologia*, 49(5), 1359-1362
- Prince van Leeuwen A, HE Creemers, FC Verhulst, J Ormel, AC Huizink (2011) Are adolescents gambling with cannabis use? A longitudinal study of impulsivity measures and adolescent substance use: the TRAILS study. *Journal of Studies on Alcohol and Drugs*, 72(1), 70-78
- Ringlever L, R Otten, RNH de Leeuw, RCME Engels (2011) Effects of parents' education and occupation on adolescent smoking and the mediating role of smoking-specific parenting and parent smoking. *Eur Addict Res*, 17(2), 5-63
- Ringlever L, R Otten, O van Schayck, RCME Engels (2011) Early smoking in school-aged children with and without a diagnosis of asthma. *European Journal of Public Health* 22(3), 394-8
- Rodenburg G, SPJ Kremers, A Oenema, D van de Mheen (2011) Psychological control by parents is associated with a higher child weight. *International Journal of Pediatric Obesity*, 6(5-6), 442-449
- Rooij van AJ, TM Schoenmakers, AA Vermulst, RJJM van den Eijnden, D van de Mheen (2011) Online video game addiction: Identification of addicted adolescent gamers. *Addiction*, 106(1), 205-212
- Sar van der R, EPM Brouwers, LAM van de Goor, HFL Garretsen (2011) The opinion of adolescents and adults on Dutch restrictive and educational alcohol policy measures, *Health Policy*, 99, 10-16
- Sar van der R, EPM Brouwers, LAM van de Goor, HFL Garretsen (2011) The opinion on Dutch cannabis policy measures: a cross-sectional survey. *Drugs: Education, Prevention and Policy. Advance online publication*. doi: 10.3109/09687637.2010.519361
- Schelleman-Offermans K, RA Knibbe, RCME Engels, WJ Burk (2011) The Effect of Pubertal and Psychosocial Timing on Adolescents' Alcohol Use: What Role Does Alcohol-Specific Parenting Play? *Journal of Youth Adolescence*, 40, 10, 1302-1314
- Schelleman-Offermans K, E Kuntsche, RA Knibbe (2011) Associations between drinking motives and changes in adolescents' alcohol consumption: A full cross-lagged panel study. *Addiction*, 106, 1270-1278
- Schuck K, GPJ Keijsers, M Rinck (2011) The effects of brief cognitive-behaviour therapy for pathological skin picking: A randomized comparison to wait-list control. *Behaviour Research and Therapy*, 49, 11-17
- Schuck K, R Otten, RCME Engels, M Kleinjan (2011) The relative role of nicotine dependence and smoking-related cognitions in adolescents' process of smoking cessation. *Psychology and Health*, 26, 1310-1326
- Schuck K, R Otten, M Kleinjan, JB Bricker, RCME Engels (2011) Effectiveness of proactive telephone counseling for smoking cessation in parents. Study protocol of a randomized controlled trial. *BMC Public Health*, 11, 732-737

Teunissen HA, R Spijkerman, TM Schoenmakers, KD Vohs, RCME Engels (2011) The Effect of Self Control on Attentional Bias for Alcohol Cues in Male Heavy Drinkers. *Journal of Applied Social Psychology*. DOI 10.1111/j.1559-1816.2011.00800.x

Verdonk-Kleinjan WMI, MJJM Candel, RA Knibbe, MC Willemsen, H de Vries (2011) Effects of a workplace smoking ban in combination with tax increases on smoking in the Dutch population. *Nicotine & Tobacco Research*, 13, 412-418

Voogt CV, EAP Poelen, M Kleinjan, LACJ Lemmers, RCME Engels (2011) Targeting young drinkers online: the effectiveness of a web-based brief alcohol intervention in reducing heavy drinking among college students: study protocol of a two-arm parallel group randomized controlled trial. *BMC Public Health* 2011, 11(213)

Wouters EJ, JK Larsen, JS Dubas, R Geenen (2011) Different mechanisms underlie post-menarchial increase in depression and weight. *International Journal of Behavioral Medicine*, 18, 254-259. doi:10.1007/s12529-010-9113-x

Wouters EJ, JK Larsen, H Zijlstra, B van Ramshorst, R Geenen (2011) Physical Activity After Surgery for Severe Obesity: The Role of Exercise Cognitions. *Obesity Surgery*, 21, 1894-1899. doi:10.1007/s11695-010-0276-y

Zwaluw van der CS, E Kuntsche, RCME Engels (2011) Risky Alcohol Use in Adolescence: The role of genes and coping motives. *Alcoholism: Clinical and Experimental Research* 35:756-64

Dutch Journals

Bommele J (2011) Legalisering van online gokken in Nederland: kansen of bedreigingen? *TSG*, 89(8), 362-363

Hermans RCJ, KE Bevelander, RCME Engels, JK Larsen (2011) Het effect van portiegrootte en het eetgedrag van anderen op het eetgedrag van jonge vrouwen. *Nederlands Tijdschrift voor Voeding & Diëtetiek*, 66(5), s1-s7

Larsen H, CS van der Zwaluw, G Overbeek, I Granic, B Franke, RCME Engels (2011) De invloed van het DRD4 VNTR polymorfisme op adaptatie aan andermans alcoholconsumptie: een onderzoek naar een gen-omgevinginteractie. *Psychologie en Gezondheid* 1:5-11

Mathijssen JJP, MJH van Bon-Martens, LAM van de Goor (2011) Jongeren en alcohol: doelgroepsegmentatie op waarden en attitudes. *Tijdschrift voor Gezondheidswetenschappen*, 89(5), 282-288

Naaborgh LA, TM Schoenmakers (2011) Signalering, screening en kortdurende interventie bij jongeren met risicovol alcoholgebruik. *Tijdschrift Verslaving* 7 (3), 48-56

Risselada A, TM Schoenmakers, L Naaborgh (2011) Signalering, screening en interventie bij jongeren met risicovol alcoholgebruik. *JGZ, Tijdschrift voor Jeugdgezondheidszorg* 43 (1), 16-21

Snoek A, A van der Poel, D van de Mheen (2011) Het Minnesotamodel. Een waardevolle aanvulling op de Nederlandse Verslavingszorg? *TSG Tijdschrift voor Gezondheidswetenschappen*. 2011,89:159-165

International Books/other Publications

Hunt G, K Joe-Aidler, M Moloney, A van der Poel, D van de Mheen (2011) Dance Drug Scenes: a global Perspective. In: (eds) Drugs and Culture: Understanding Patterns of Use and Regulation. *Surrey: Ashgate Publishing Ltd, 2011*

Roeg DPK, TJM Kuunders. (2011) Developing and evaluating innovative community programmes, chapter 7. In: Cooper, D. (ed.) *Developing services in mental health-substance use. Book 2. pp98-110. Oxford: Radcliffe Publishing*

Dutch Books/Other Publications

Barendregt C, C Schrijvers, JE Baars, D van de Mheen (2011). Zorg voor zwerfjongeren met ernstige problematiek Onderzoek naar de aansluiting tussen zorgvraag en zorgaanbod in Rotterdam. *Rotterdam: IVO*

Habraken JM, EPM Brouwers, IMB Bongers (2011) Kwetsbare mensen doen mee in buurten en wijken – onderzoeksresultaten van een ontwikkel- en onderzoeksproject periode 2009-2010

Hammink AB, M Altenburg, C Schrijvers (2011) Sociale gevolgen van verslaving. Een state of the art studie naar verstoring van sociale relaties, schooluitval, dakloosheid, schulden en huiselijk geweld als gevolg van alcohol- of drugsverslaving. *Rotterdam: IVO*

Hammink AB, C Schrijvers (2011) Goed af in de nachtopvang?! Sterke en zwakke punten in de zorg en begeleiding van cliënten van de Rotterdamse nachtopvang. *Rotterdam: IVO*

Huizink AC (2011) Biologische factoren bij riskant middelengebruik door jongeren. In M. Clerkx, R. de Groot & F. Prins (Eds.), *Grensoverschrijdend gedrag van pubers* (O & A reeks, 3) (Hoofdstuk 5). *Antwerpen-Apeldoorn: Garant Uitgevers n.v.*

Loth C, A Risselada, EG Wits, C de Jong, D van de Mheen (2011) RIOB. Landelijke implementatie Richtlijn Opiaatonderhoudsbehandeling. Eindrapport van de tweede fase van de ondersteuning bij het implementatieproces. *Amersfoort: Resultaten Scoren*

Meerkerk GJ, DVM van den Ende, M Altenburg, TM Schoenmakers (2011) De opwinding voorbij. Aard, ernst en omvang van gebruik en problematisch gebruik van online pornografie in Nederland. *Rotterdam: IVO*

Meerkerk GJ, TM Schoenmakers (2011) Clienttevredenheid verslavingskliniek Solutions Voorthuizen, een tussenrapportage. *Rotterdam: IVO*

Rooij van AJ (2011a) Internet op School 2006-2011: Zes jaar internetgebruik in de klas. *Rotterdam: IVO*

Rooij van AJ, TM Schoenmakers, D van de Mheen (2011) Nationaal Prevalentie Onderzoek Middelengebruik 2009: De kerncijfers. *Rotterdam: IVO*

Rooij van AJ, TM Schoenmakers, D van de Mheen (2011) Factsheet Monitor Internet en Jongeren 2006-2010. Nederlandse jongeren op internet: applicaties, (overmatig) gebruik, en de relatie met middelengebruik. *Rotterdam: IVO*

Schelleman-Offermans K, RA Knibbe, M Derickx (2011) Ontwikkelingen in drankgebruik, drinksituaties en verkrijgbaarheid van drank bij jongeren in Amersfoort: Resultaten van de derde meting. *Maastricht: Maastricht University*

Wiskerke L, HE Creemers, AJ van Rooij, AC Huizink (2011) Gamegedrag van kinderen: onschuldig vermaak of een serieuze zaak (Horizon scriptieprijs reeks). Amsterdam: Uitgeverij SWP

Wits EG, S Ganpat, TM Schoenmakers, A Snoek, J Boonstra, R den Ouden (2011) Theoretische handleiding Stay-a-Way. Een gedragsinterventie voor middelenproblematiek bij delinquente jongeren. *Deventer/Rotterdam: Tactus/IVO*

Wits EG, TM Schoenmakers, S Ganpat, J Boonstra & R den Ouden (2011). Beoordeling- en Evaluatiehandleiding - Onderzoeksopzet voor een effectonderzoek naar Stay-a-way. Een gedragsinterventie voor jeugdige delinquenten met risicovol middelengebruik. *Deventer/Rotterdam: Tactus/IVO*

Essays / Theses

Kuntsche S (2011) Snow white's heritage; gender, social roles and alcohol use . *PhD-thesis, Maastricht University.*

Leeuw de RNH (2011) Speaking words of wisdom and other strategies that parents can apply to keep their children from smoking. Ipskamp drukkers, Enschede [doctoral dissertation]. *Available via Radboud Repository: <http://repository.ubn.ru.nl/handle/2066/87170>*

Rooij van AJ (2011) Online video game addiction. Exploring a new phenomenon [PhD Thesis]. *Rotterdam, The Netherlands: Erasmus University Rotterdam*