

# Prevention Technologies

Improving the use of evidence in prevention practice

9th EUSPR conference and members' meeting  
24–26 October 2018 — Lisbon, Portugal — [euspr.org](http://euspr.org)

## PROGRAMME

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# WELCOME

## Dear EUSPR members and Conference Participants,

This year's Conference is held in Lisbon – an impressive capital city and a major centre for Prevention policy and evidence – the city hosts three public Universities and a number of European Agencies, including our collaborating partner, the EMCDDA. This makes Lisbon a highly appropriate venue for our conference and to explore this year's conference theme – 'Prevention Technologies – improving the use of evidence in prevention practice'.

We are returning to Lisbon, having previously held a very successful meeting here in 2011. Without doubt the EUSPR has continued to grow and develop substantially since then. Last Autumn I took over as President, succeeding Professor David Foxcroft. I would like to thank David very much for the significant contribution he has made to the Society's development during his time as President, and for his continuing support and work as Past President. He will certainly be a hard act to follow.

I am very grateful to the Board members and many other Society members who have worked enthusiastically over the last year on a range of activities. The transfer of the

EUSPR's registration to Spain is now largely completed and we have also relocated our administrative support functions to Palma. Planning for the Lisbon conference – led ably by Harry Sumnall started almost as soon as last year's Berlin meeting was concluded. Harry has done a superb job in organising our annual meetings over many years, and I would like to record my thanks for his tireless efforts. The Board has also been developing plans for future conference venues and organisation. Our Early Careers Forum continues to go from strength to strength, and we were pleased to be able to increase the number of bursaries available to support Early Career Researchers in attending the conference this year. This year's conference also features a pre-conference workshop which brings together practitioners and Early Career Researchers. We are keen to identify new ways in which we might meet the needs of practitioners and policy makers, including the activities organised at our annual conference. Other work during the year has included formation of a new committee to coordinate nominations and judging for the Society's awards. The Society has contributed to the



activities of the recently-founded Xchange Prevention Registry, and we have also developed links with other European organisations. Our application to join the European Union's Civil Society Forum on Drugs was successful, and we continue to forge connection with prevention scientists in other parts of the world, including the Society for Prevention Research in the United States.

This year's conference theme – 'Prevention Technologies – improving the use of evidence in prevention practice', addresses some of the key opportunities and challenges facing the field of prevention science. Research has a key role to play in shaping policy and practice, but we know that translating research into policy and practice can often be challenging. Over the course of the conference we look forward to a range of presentations and debates which unpack the factors which affect the use of evidence in policy/practice and the strategies which can help overcome these challenges, including the potential offered by new technologies. Some of the key questions which we invite speakers and delegates to consider are:

- ▲ What do we know about how research evidence is used in the 'real world' of prevention?
- ▲ What are some of the biggest implementation challenges in prevention, and how do we address these?
- ▲ How might new (and old) technologies be used or optimised to better deliver preventive activities and to better engage target groups?
- ▲ How can we take advantage of technology to promote the use of evidence in policy and practice, whilst supporting diversity and innovation?
- ▲ What other types of innovations will help in the development of the prevention workforce (practitioners and researchers)? What are some of the key methodological and conceptual developments that will be required to further these ambitions?

It is clear that we need to consider carefully how we connect researchers, practitioners and policymakers, and to conceptualise our field as a prevention community. The conference will provide important opportunities for us to reflect on how prevention science as a whole, and the EUSPR as a society, can do this.

We are very pleased to have been supported with the organisation of this meeting by the EMCDDA and Lisbon City Council, and through the collaboration with our colleagues at the Public Health Institute (UK) and IREFREA (Spain), and I would like to note our thanks as a Society.

Looking to the future, over the next year we aim to continue building our systems and structures and will be developing a strategy that will help us identify to the key steps which we need to take over the short and long term to achieve our goals as a Society. We hope to be able to share some of our ideas at the Lisbon meeting, and there will of course be opportunities for members to contribute to this process.

**I hope that you enjoy the conference and look forward to meeting you in Lisbon.**



**Jeremy Segrott**

*EUSPR President*



# PARTNERS

## Co-organisers

### European Monitoring Centre for Drugs and Drug Addiction

[emcdda.europa.eu](http://emcdda.europa.eu)

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) is the central source and confirmed authority on drug-related issues in Europe. For over 20 years, it has been collecting, analysing and disseminating scientifically sound information on drugs and drug addiction and their consequences, providing its audiences with an evidence-based picture of the drug phenomenon at European level. It sits at the hub of the European information network on drugs and drug addiction ('Reitox network'), comprising national monitoring centres in 30 countries.

The agency monitors the drug situation and responses to it and operates a rapid-information system on the emergence and risks of new drugs and related trends. In 2017, it launched the EMCDDA Strategy 2025, a long-term strategic and operational plan setting out an ambitious course of travel for the coming years. This presents a vision to contribute to a healthier and more secure Europe, through better informed drug policy and action.

## Pre-conference sponsor

### Lisbon City Council

[www.cm-lisboa.pt](http://www.cm-lisboa.pt)

The Lisbon City Council is the executive body of the municipality and its mission is to define and execute policies that may promote the development of the County of Lisbon in different areas.

## Collaborating organisations

### Public Health Institute at Liverpool John Moores University

[www.ljmu.ac.uk](http://www.ljmu.ac.uk)

The Public Health Institute (PHI) is a vibrant research and teaching community working at a local, regional, national and international level. The organisation specialises in applied research and educational programmes addressing health issues at all levels from policy development to service delivery. PHI is committed to a multidisciplinary approach to public health and works in partnership with health services, local authorities, judicial bodies, environmental services and community groups.

Influencing health service design and delivery, as well as health related policy, the Public Health Institute's research has been at the forefront of the development of multiagency strategies to promote and protect public health. PHI turns information and data into meaningful and timely intelligence.

### European Institute of Studies on Prevention

[www.irefrea.eu](http://www.irefrea.eu)

Founded in 1988, the European Institute of Studies on Prevention (IREFREA) is probably one of oldest professional drug prevention networks, with delegations in seven European countries and maintaining active working collaborations with organizations such as the EMCDDA, NIDA, UNODC, the Pompidou Group and the Spanish National Plan on Drugs (PNSD). The Spanish group has had the scientific leadership since the group's initiation promoting prevention on the risks that affect children, adolescents and youngsters.

The composition of IREFREA's staff covers the whole spectrum of prevention research and implementation with sound knowledge in design, implementation and evaluation of prevention programmes, research methodology, network analysis, training, qualitative research and data analysis, and health policy; and has extensive experience in the coordination of research projects at national and European level, as well as participating in international events to support and promote prevention research.

## Acknowledgements

We would like to offer our special thanks to the following colleagues who have helped in organising the programme, reviewing abstracts, and supporting administration.

**Joella Anupol** — University of the Balearic Islands

**Nick Axford** — University of Plymouth

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**Boris Chapoton** — Université Jean Monnet Saint-Etienne

**Marjolein De Pau** — University College Ghent

**Mariangels Duch** — IREFREA

**Silvia Escribano** — Alicante University

**Maria Rosaria Galanti** — Karolinska Institute

**Elena Gervilla** — University of the Balearic Islands

**Marisa Gomes** — EMCDDA

**Nicole Gridley** — University of York

**Fidelie Kalambayi** — Romanian Angel Appeal Foundation,  
University of Bucharest

**Laurie Kelly** — Oxford Brookes University

**Klaudia Kepa** — EMCDDA

**Valentina Kranzel** — Faculty of Education and  
Rehabilitation Sciences, University of Zagreb

**Carmela Martínez Vispo** — University of Santiago de  
Compostela

**Alexandra Morales** — Miguel Hernández University

**Larissa Nobre** — Grupo de Estudos em Prevenção e  
Promoção de saúde no Ciclo de vida, Universidade de  
Brasília

**Harry Sumnall** — Liverpool John Moores University

**Samuel Tomczyk** — University of Greifswald

**Tina van Havere** — University College Ghent

**Silke Vitt** — EMCDDA



Photo by Vito Marja Murenate on unsplash



# PRACTICAL INFORMATION

## Registration and Plenary Sessions

Registration and all Plenary Sessions take place in the Conference Centre located on Praça Europa, which also hosts the two Lisbon-based European agencies, the European Maritime Safety Agency (EMSA) and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA).

The square is easily reachable by public transport (metro and train station Cais do Sodré).

**EMSA-EMCDDA Conference Centre**  
**Praça Europa 4, Cais do Sodré**  
**1249-206 Lisbon**

## Parallel Sessions

Parallel Sessions take place at the Conference Centre, the EMCDDA main building and the Palacete building. These buildings are located on Praça Europa. Please take into account that visitors will be subject to a security scan.

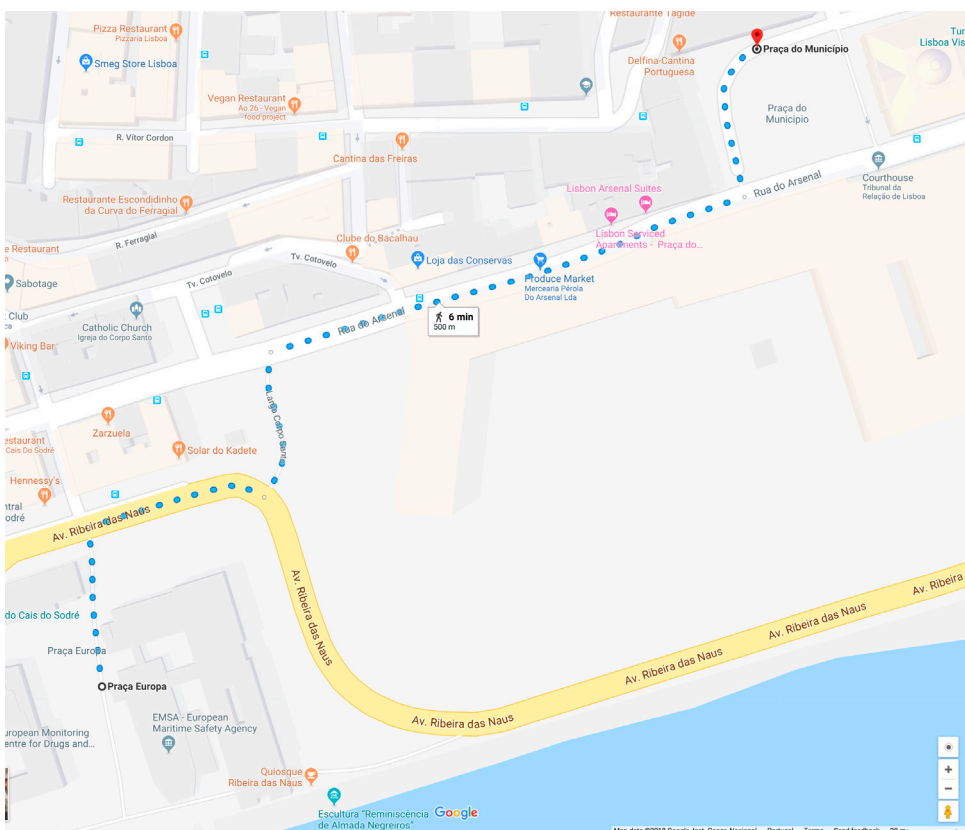




## EUSPR Knowledge Exchange

The EUSPR Knowledge Exchange on 24 October will be held at the Lisbon City Hall, a short walk from Praça Europa.

**Praça do Município**  
**149-014 Lisbon**





## PLENARY SPEAKERS — BIOGRAPHIES

### Plenary Session 1



#### **Prof John Toumbourou, Deakin University, Australia**

Professor Toumbourou is based at Deakin University, Australia. He is the Chair in Health Psychology and the Leader in Translation Sciences within the Centre for Social and Early Emotional Development (SEED). He serves as the voluntary Chief Executive Officer of the not for profit company Communities That Care Ltd. He also serves as the Chair of the International Committee for the Society for Prevention Research. He is a prominent researcher and social advocate in areas related to child and adolescent mental health promotion and the prevention of alcohol and drug problems.



#### **Prof Christiane Spiel, University of Vienna, Austria**

Christiane Spiel is Professor of Bildung-Psychology and Evaluation at the Faculty of Psychology, University of Vienna. Her research topics are on lifelong learning, bullying prevention, gender stereotypes in education, evaluation research, and implementing interventions into public policy. She has published more than 250 original papers and headed about 40 third party funded projects. She has got several awards as e.g., the Austrian Cross of Honor for Science and Arts first class. Currently she is e.g., coordinating lead author of the chapter on education of the International Panel on Social Progress and chair of several scientific advisory boards.

### Plenary Session 2



#### **Frederick Groeger-Roth, Crime Prevention Council of Lower Saxony, Germany**

Frederick Groeger-Roth studied Sociology, Psychology and Political Sciences in Bielefeld and Berlin. He has researched on youth violence in deprived urban areas and worked for NGO's on regional and national level in the area of urban development. Since 2009 he joined the Crime Prevention Council of Lower Saxony (CPC)/Ministry of Justice of Lower Saxony. He has led the first 'Communities That Care – CTC' pilot in Germany, and is at present head of the CPC working unit on community-based prevention.



#### **Dr James White, Cardiff University, United Kingdom**

James White is the Deputy Director of Population Health Trials in the Centre for Trials Research, a Senior Lecturer based at the Centre for the Development and Evaluation of Complex Public Health Interventions (DECIPHer) a UKCRC Public Health Research Centre of Excellence in Cardiff University, UK. James funded research has led to the design and evaluation of interventions to prevent: illicit drug use, obesity, and teenage pregnancy; and has used record-linked 'big data' studies to evaluate the health impacts of UK government policy. James currently leads a multi-centre randomised control trial to evaluate FRANK friends, a school-based peer-led drug prevention intervention. James is also an Honorary Senior Lecturer at the University of Bristol.

## Plenary Session 3



### Prof Harry Rutter, London School of Hygiene and Tropical Medicine, United Kingdom

Harry Rutter is professor of global public health at the University of Bath, senior academic adviser to Public Health England, and holds adjunct positions in Norway and Ireland. He was founder director of the English National Obesity Observatory, led the development of the English National Child Measurement Programme, and chaired the NICE group on walking and cycling. He sits on two WHO Europe steering groups, and chairs a number of other committees. His research is focused on effective mechanisms for improving the research, policy and practice responses to complex system problems in public health, with a particular focus on obesity.

## Plenary Session 4



### Dr Kirsten Mehlig, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Sweden

Kirsten Mehlig studied physics and mathematical statistics in Germany and Sweden, and is associate professor of Epidemiology at the University of Gothenburg, Sweden. As researcher and consultant, she is active in several population-based studies, for instance in two large European childrens' studies, the IDEFICS-study (Identification and prevention of dietary- and lifestyle-induced health effects in children and infants, 2007–2011), and the I.Family study (Investigating the determinants of eating behaviour, lifestyle, and health in European children, adolescents and their parents, 2012–2017). Another example is the population study of women in Gothenburg, which started in 1968 and allows to investigate mid-life risk factors for diseases of high age such as dementia.









# PROGRAMME AT A GLANCE

## Pre-conference events, Wednesday 24 October 2018

(Prior booking required)

### EUSPR knowledge exchange

Location: EMCDDA Room 107

08.30	Registration at Lisbon City Hall
<b>Introduction to the European Universal Prevention Curriculum (EUPC)</b>	
09.00	Led by Peer van der Kreeft (HoGent University, Belgium). An introduction to the EUPC  With Rachele Donini (ASL Savona, Italy), Valentina Kranzelic (University of Zagreb, Croatia) and Annemie Coone (HoGent University, Belgium).
10.30	Coffee break
<b>Advocacy workshop</b>	
11.00	Led by Matej Košir, Institute Utrip, Slovenia
13.00	Lunch break – *paid extra*

### Early Career Forum workshops

#### 1. *Promoting research — the do's and don'ts of scientific communication*

Location: EMCDDA Room 107

08.30	Registration at the EMCDDA main building
09.00	Facilitated by Dr Ilaria Montagni (University of Bordeaux, FR) with support by EUSPR Early Career Award winners Boris Chapoton (Centre Hyg�e, FR) and Dr Alexandra Morales (Miguel Hern�andez University, ES)
13.00	End of meeting

#### 2. *Joint research-practitioner exchange activity with EUSPR researchers. Prevention research meets prevention practice: can common goals improve both?*

Location: Lisbon City Hall

Joint research-practitioner exchange activity with EUSPR researchers	
14.00	<b>Introductory statements</b>  Led by Dr Samuel Tomczyk (University of Greifswald, DE, and EUSPR-Early Career lead) and Prof Rosaria Galanti (Karolinska Institutet, SW)  <b>Opening dialogue</b>  Joint panel discussion of early career researchers and prevention practitioners regarding the implications and challenges of connecting research to prevention practice
14.45	Coffee break
15.00	<b>Group work</b> Groups will be based on certain prevention topics depending on the audience's interests, e.g. substance use, obesity, mental health
15.45	<b>Synthesis of group work</b>
16.30	<b>Closing statements</b>



## Formal conference opening and reception: Wednesday 24 October 2018, 17.30

Location: Lisbon City Hall

## Conference Day 1, Thursday 25 October 2018

08.00	<b>Registration</b>	Conference Centre
09.00	<b>Plenary Session 1</b>  Prof John Toumbourou, Deakin University, Australia <i>Cluster randomised trial of Communities That Care in Australia: Translating research into prevention practice</i>  Prof Christiane Spiel, University of Vienna, Austria <i>Improving the use of evidence in prevention practice - lessons learned from violence prevention in Austria</i>	
10.30	Coffee break	
11.00	<b>Plenary Session 2</b>  Frederick Groeger-Roth, Crime Prevention Council of Lower Saxony, Germany <i>Use of Evidence-based Prevention Programmes in Communities. A Practice-based Taxonomy of Barriers and Possible Solutions</i>  Dr James White, Cardiff University, United Kingdom <i>Co-producing and prototyping interventions</i>	
12.30	Lunch break  <b>Poster Session 1</b>	
14.00	<b>Parallel Session 1</b>	
	1.1 Schools, mental health, and wellbeing	Conference Centre
	1.2 Illicit substances	EMCDDA 107
	1.3 Alcohol	EMCDDA 012
	1.4 Innovations in prevention	Palacete 102
	1.5 Early career session I	EMCDDA 106
15.30	Coffee break and poster viewing	Conference Centre
16.00	<b>Parallel Session 2</b>	
	2.1 Special Session: The Prevention Workforce: An Emerging New Identity	EMCDDA 107
	2.2 Special Session: EPPIC — Exchanging Prevention practices on Polydrug use among youth In Criminal justice systems	EMCDDA 012
	2.3 Special Session: How to study and apply effective components	Palacete 102
	2.4 Parents and families	Conference Centre
	2.5 Early career session II	EMCDDA 106
18.00	End of Day 1	
19.30	<b>Conference social dinner</b> (prior booking required)	

## Conference Day 2, Friday 26 October 2018

08.00	<b>Symposium: Special Session — Embracing ‘failure’ in prevention science</b>	Conference Centre
09.30	End of Symposium	

08.30	<b>Registration</b>	Conference Centre
09.30	<b>Parallel Session 3</b>	
	3.1 Supporting the use of evidence-based prevention in practice and policy	Conference Centre
	3.2 Advances in prevention science methodology	EMCDDA 107
	3.3 Focus on population approaches in prevention	EMCDDA 012
	3.4 Diet and physical health	Palacete 102
	3.5 Risk and resilience	EMCDDA 106
11.00	Coffee break	Conference Centre
11.30	<b>Plenary Session 3</b> Round table led by discussant Professor Harry Rutter, London School of Hygiene & Tropical Medicine, United Kingdom <i>Chess, not chequers</i>	
13.00	Lunch break <b>Poster Session 2</b>	
14.30	<b>Parallel Session 4</b>	
	4.1 The EUPC	Conference Centre
	4.2 Enabling change in prevention	EMCDDA 107
	4.3 Critical discussions in prevention	EMCDDA 012
	4.4 (Re)designing prevention services and systems	Palacete 102
	4.5 New developments in evidence-based prevention	EMCDDA 106
16.00	Coffee break	Conference Centre
16.30	<b>Plenary Session 4 and Prize Giving</b> Dr Kirsten Mehlig; Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Sweden <i>Children’s propensity to consume sugar and fat predicts regular alcohol consumption in adolescence</i>	
18.00	End of Conference	



# FULL PROGRAMME — DAY 1

## Plenary Session 1 (09.00–10.30)

**Prof John Toumbourou**

### *Cluster randomised trial of Communities That Care in Australia: Translating research into prevention practice*

This presentation will outline work being completed in Australia to disseminate and evaluate Communities That Care, a structured coalition planning process designed to lead to measurable improvements in child and youth health and wellbeing. 28 communities were paired based on disadvantage, urban/nonurban location and size. One of each pair was then randomly allocated to the intervention, resulting in 14 intervention and 14 control communities. This paper will describe the Communities That Care process, efficacy and economic evaluation evidence from pilot studies and the first year findings from the randomised trial. The paper will examine the influence of the Communities That Care dissemination on Australian prevention science capacity.

**Prof Christiane Spiel**

### *Improving the use of evidence in prevention practice — lessons learned from violence prevention in Austria*

Evidence-based intervention programs have become highly important in recent years, especially in educational contexts. But transferring these programs into practice and into the wider field of public policy often fails. The presentation discusses reasons for poor transfer and describes the Austrian national strategy for violence prevention at school as an example how research can be successfully linked to policy and practice. In formulating the strategy a systematic procedure involving international experts and local stakeholders was applied. The strategy consists of six activity domains and the steps necessary for implementation. Challenges and results in implementing the national strategy are presented and lessons learned for using evidence in public policy and practice are discussed. Based on our experiences, we argue for a systematic integration of intervention and implementation research. For realizing this systematic integration, we recommend a six-step procedure (PASCIT). This procedure requires researchers to design and develop intervention programs using a field-oriented and participative approach. In particular, the perspective of policymakers has to be included as well as an analysis of which factors support or hinder evidence-based policy in contrast to opinion-based policy.

## Plenary Session 2 (11.00–12.30)

**Frederick Groeger-Roth**

### *Use of Evidence-based Prevention Programmes in Communities. A Practice-based Taxonomy of Barriers and Possible Solutions*

The implementation of evidence-based prevention interventions on scale to achieve population-level results is often seen as the ultimate goal of prevention science. Challenges and obstacles to reach this goal were discussed intensively in the last years, various implementation frameworks were developed, some of them were tested empirically meanwhile. Community settings were identified as promising environments for the large-scale implementation of preventive interventions. But much of the knowledge about implementation challenges, barriers and possible solutions derives from controlled study conditions, not so much from studying “naturalistic” implementation processes in the “real world”. In my talk I will present suggestions to develop a practice-based taxonomy of implementation barriers in the “real world” and consequential strategies to deal with these barriers. This taxonomy is derived from experiences during the implementation of the “Communities That Care” (CTC) model in the State of Lower Saxony in Germany. CTC is a community-change process for preventing mental, emotional and behavioural problems in youth through the implementation of effective prevention programmes and policies on scale and with fidelity. CTC activates a diverse coalition of community stakeholders to adopt science-based prevention approach to reach this goal. In Lower Saxony CTC is implemented since 2009 under natural conditions in a non-research setting. In my talk I will focus mainly on the “exploration stage” for the programme implementation, suggestions for further research will be discussed.

**Dr James White**

### *Co-producing and prototyping interventions*

Existing guidance on the development of complex interventions does not provide a framework for co-producing or prototyping interventions. This talk will examine the origins, intentions and application of co-production and prototyping in design. It will present a three-stage framework that aims to increase the acceptability of an intervention with stakeholders and improve implementation before piloting. The results of the application of this framework in the development ASSIST+FRANK study, a school-based drug prevention

intervention, will be presented. It will close by examining the potential benefits, limitations and barriers to applying prototyping to intervention design in prevention research.

## Poster Session 1 (12.30–14.00)

### Poster 1.1

**Wioletta Junik**

***Polish-ukrainian scientific and methodical collaboration for supporting improvement of the prevention system and educating experts in preventing risk behaviours in the children and the youth in Ukraine***

The poster will be a presentation of a polish project (name in the title) developed and realized by a team from the Kazimierz Wielki University in Bydgoszcz within the National Health Programme for years 2016-2020. The goals of the programme involve prevention and resolving of the problems associated with the use of psychoactive substances, behavioral addictions and other risk behaviours. Simultaneously, the goal is supposed to be realized through international cooperation with countries outside of the EU. Poland is interested in supporting neighbouring countries with large social issues and undeveloped prevention systems, because the close neighbourhood causes many unfavourable social phenomena that require interventions. The list of countries in need of support includes Ukraine, which aspires to become a member of the EU. In Ukraine, there is a lack of a clear social policy for prevention as well as law fundamentals and systemic solutions in regards to it. The education of the society plays a major role amongst them – it is the basic way of counteracting social issues. The foundation of the education should be the preparation of professional staff for realization of prevention tasks in practice. Ukraine lacks a consistent system for educating such professionals. This deficit is why preparing the academic staff in regards to addiction prevention based on scientific knowledge and for developing and executing a curriculum for students studying psychological and pedagogy subjects is of great importance. It would result in highly developed abilities of the staff directly working with the children and the youth, who are the most at risk of indulging in risk behaviours. The author will present of the concept of the project, which aim to develop by the academic staff of the Pedagogical University in Drohobycz and practitioners of prevention from Drohobych module of education for students of psychology and social work in the field of prevention of risk behaviours of children and adolescents. In addition, the first experiences and effects from the annual implementation of the 3-year project will be presented.

### Poster 1.2

**Victor Cabrera-Perona, Daniel Lloret, Elena Gervilla and Joella Anupol**

***Online risks in adolescence: An exploratory analysis of a Parental Mediation Scale***

Speaker: Daniel Lloret

Research findings support that parental regulation is a protective factor against adolescents' risky online behaviours. Thus, parental regulation has been studied in relation with online risks such as gambling, cyberbullying or video-games abuse. The definition of parental regulation varies among studies, but, in summary, refers to any set of strategies that parents put into practice towards the minor's use of new technologies in order to achieve desirable and protective behavior. These strategies include information, guidance, co-use, supervision, monitoring and restrictions. Aims: To design and explore structure and psychometric properties of a scale aimed to assess parental mediation referred by minors. Method: Sample: 560 secondary education students sample (47.5%; mean age: 13.34, SD = .90; range: 12-15). Instruments: Parental mediation Scale (Cabrera-Perona, Lloret, Gervilla & Anupol, 2018): Self-applied questionnaire 29 Likert-type items assessing four theoretical dimensions of parental mediation: active mediation, restrictive mediation, supervision and co-use. Other measures: Privacy and risky online behaviors Scale (Lloret & Cabrera, 2018), attitudes toward violence in educative context: (CAHV-25) (Ruiz, Llor, Puebla & Llor, 2009), cyber-victimization: Cuestionario de Cyberbullying (CCB) (Garaigordobil & Fernández-Tomé, 2011). Data Analysis: Cronbach, EFA (Exploratory Factor Analysis, maximum likelihood, varimax rotation). Results: Reliability.  $\alpha$  Cronbach = .915. KMO = .927. Analysis revealed five factors explaining 55.98% of variance. Validity. Supervision and co-use dimensions showed significant positive correlations with cyber-victimization ( $p < .001$ ). Total scores showed positive correlations with privacy ( $p < .001$ ) and significant inverse correlations with attitudes toward violence ( $p < .05$ ) Conclusion: The scale shows adequate psychometric properties. Our results fit with the theoretical propose and suggest five factors, splitting the factor supervision into supervision and use of parental control software.



### Poster 1.3

**Stephen Kulis, Stephanie Ayers and Flavio Marsiglia**

***Parenting in 2 Worlds: A Culturally Tailored Intervention Addressing Risky Sexual Behavior in Urban American Indian Adolescents***

Speaker: Stephen Kulis

The rapidly growing majority of American Indian (AIs) adolescents who live in cities (70%) have relatively high rates of unprotected sex, multiple sex partners, inadequate HIV/STI information, and co-occurring substance use but urban AI families are severely underserved by existing prevention programs. Parenting in 2 Worlds (P2W), a culturally grounded parenting intervention for urban AIs, is designed to strengthen protective family factors against youth risky sexual behaviors and substance use, thereby promoting sexual abstinence, delay of sexual debut, and birth control use. P2W addresses key social influences on urban AI families (cultural and familial disruption, high residential mobility, socioeconomic stressors), and systematically incorporates common AI teachings and cultural values relating to parenting. This study tested the efficacy of P2W in improving parent-child communication about sexuality.

Data come from 585 parents of AI children (ages 10-17) in an RCT of P2W in three Arizona cities, representing 31 different AI tribes. Parents were randomly assigned to P2W or an informational family health curriculum, Healthy Families in 2 Worlds (HF2W) that was not culturally tailored. Both curricula had 10 workshops delivered weekly by AI community facilitators. Pretests occurred at workshop one and post-tests at workshop ten, measuring parenting skills, parent-child communication, and youth risk behaviors. We tested the efficacy of P2W through baseline adjusted regression models, employing random effects for city/site and facilitator and FIML missing data estimation, controlled for dosage, and investigated whether effects differed by parent and adolescent gender.

Most parents (77%) were female, with annual incomes under \$US10,000 (56%). On average parents were 38 years old, had lived for 14 years on a reservation, and in the city for 18 years. P2W parents reported significantly larger pretest to post-test increases than HF2W parents on measures of communication with their adolescents about sexuality, safe sex, and pubertal physical changes. These desired program effects for P2W participants achieved medium size and did not differ significantly for male and female parents, but effects were stronger for parents of adolescent sons than of daughters.

Culturally grounded parenting interventions like P2W strengthen parenting practices among urban AI families that can reduce adolescent risky sexual behaviors.

### Poster 1.4

**Mohamed Iheb Bougmiza, Asma Ben Cheikh, Khalifa Knani, Jihen Sahli, Meriem El Ghardallou, Manel Mallouli, Manel Limem, Thouraya Ajmi and Chekib Zedini**

***Nicotine dependence and its determinants among adult smokers in Sousse, Tunisia***

Speaker: Mohamed Iheb Bougmiza

Background: The high nicotine dependence may contribute to failure of attempts to quit smoking

Objective: To assess the level of nicotine dependence and its determinants among adult smokers in Sousse, Tunisia

Methods: A cross-sectional survey in the city of Sousse (Tunisia) was conducted from November to December 2011. Only active smokers were included. A systematic random sampling was used to recruit the participants in cafes located in public places. In addition to sociodemographic data, levels of nicotine dependence were measured using the French version of Fagerström test. Logistic regression was used to identify independent risk factors of nicotine dependence

Results: A total of 1130 smokers were concerned in our study. Of them 892 (78.9%) were men. The mean age of the participants was  $29.5 \pm 12.0$  years. The mean number of cigarettes smoked daily was  $21.3 \pm 10.5$ . 771 (68.5%) smokers had attempted to quit. The nicotine dependence prevalence was 89.3 % (95%CI [87.3- 91.0]). 8.7% had mild dependence (n=98), 51.9 % had moderate dependence (n=587) and 28.7% presented a severe dependence (n=324). Among smokers, levels of nicotine dependence did differ statistically with the gender ( $p=0.002$ ), the age of participants ( $p<10^{-3}$ ), level of education ( $p<10^{-3}$ ), socioeconomic level ( $p<10^{-3}$ ), the number of cigarettes smoked per day ( $p<10^{-3}$ ), age of smoking ( $p<10^{-3}$ ), depression ( $p<10^{-3}$ ) and anxiety ( $p<10^{-3}$ ). Independent risk factors of nicotine dependence were depression (ORa = 1.845, (95% CI: 1.132- 3.007],  $p=0.002$ ) and the number of cigarettes smoked per day (ORa = 1.225, (95% CI: 1.182 - 1.270),  $p<10^{-3}$ )

Conclusion: The level of nicotine dependence was high. Intensive efforts including smoking cessation interventions and psychological components may be needed for nicotine dependent smokers.

## Poster 1.5

**Jolanta Jarczyska**

### *The online activity among young people. The phenomenon of livestreaming*

The aim of the poster is to present the concept of research on the study of online activity among school youth. The aim of the research is to diagnose the phenomenon of livestreaming among school youth. The essence of the study was to get to know the tasks, developmental goals and identity needs that young people are fulfilled with the help of new technologies - mainly social networks and livestreaming applications. The research method was triangulation. The studies included two stages. The first was a survey with young people, the second were focus interviews and individual in-depth interviews with young people.

## Poster 1.6

**Martina Ferić, Josipa Mihic, Miranda Novak and Valentina Kranzelic**

### *Implementation of evidence-based prevention model Communities That Care into a practice – challenges and lessons learned*

Speaker: Martina Ferić

With the initiative of NGO Step by Step and University of Zagreb Faculty of Education and Rehabilitation Sciences, during 2017 and 2018 three local communities in Croatia were introduced to the basic principles of Communities That Care (CTC) model of prevention. It is a widely accepted evidence-based model of community prevention which follows particular phases: (1) mobilization and community readiness for prevention, (2) assessment of the needs and resources, (3) definition of preventive investments priorities, (4) implementation of chosen preventive programs and (5) program and system evaluation (Hawkins, 1999; Hawkins, Catalano & Arthur, 2002). The main goal of this research project was to enable three communities in organizing effective community based prevention of behavioral problems. Selected communities were three rather similar middle sized cities whose key people were involved into an education on basic principles of community based prevention organization. During the project, the first three phases of the CTC model were implemented and included the assessment of each community readiness for prevention, application of the CTC Youth Survey (N=719 students) and need assessment just as definition of prevention priorities for each community. The results have shown that all three communities had rather low levels of readiness for prevention since their coalitions for prevention were mostly only formally established. The conducted risk and protective factors analysis has indicated crucial behavioral

problems of children and youth (under age drinking, bullying) and existing strengths, (family attachment and school opportunities for prosocial involvement). According to these communities readiness for prevention level and detected problems, specific priorities for each community were defined. The challenges and lessons learned through the process of collaboration between scientists and community key people in establishing effective prevention in local community will be described.

## Poster 1.7

**Krzysztof Wojcieszek**

### *Towards a positive change of habits. National Sobriety Program in Poland.*

In the last century in Poland there have been negative changes in the use of alcoholic beverages. Average per capita consumption increased tenfold (from 1 dcm<sup>3</sup> to 10 dcm<sup>3</sup> per year) in last century (1918-2018). The intake in the consumer group with the most heavy drinking habits (15% of population) is very high (about 35 dcm<sup>3</sup> per capita/per year). This situation prompted the Church and sobriety movements to convene the National Congress of Sobriety in September 2017. The National Sobriety Program is also planned with the various actions for the next 25 years. The author of the message is a co-author of this Program. In the lecture he will present the essential elements of the adopted Program on the background of already existing social activities and needs. The National Sobriety Program is a document that unites the efforts of both non-governmental organizations, the Church and the State. It is an original attempt to apply knowledge about prevention in the design of social change in the scale of a large country.

## Poster 1.8

**Johanna Gripenberg, Natalie Durbeej and Tobias Elgan**

### *Effects of an Alcohol Prevention Program at Sporting Events: A 2-Year Follow-up Study Using Pseudopatrons*

Speaker: Johanna Gripenberg

Introduction: Alcohol related problems at sporting events is of great concern around the world. In Sweden, this matter has been on the agenda for authorities and key stakeholders, demanding action to be taken. As a result, a research project was initiated in 2015 with the aim at preventing alcohol related problems by reducing intoxication levels among the spectators at sporting events. Football is the most popular sport in Sweden with the highest number of spectators, and also the highest prevalence of alcohol related problems. A multi-



component program, based on STADs Responsible Beverage Service program, was therefore developed and implemented at arenas hosting games within the Swedish Premier Football League (SPFL).

**Aim:** To evaluate the effects of this alcohol prevention program on the security and serving staff's frequency of denial rates towards obviously alcohol-intoxicated spectators at SPFL games.

**Methods:** This is a quasi-experimental control group study using the largest, and second largest city in Sweden as the intervention and control area, respectively. Baseline data was collected in 2015, and the 2-year follow-up was completed in 2017. Professional actors (i.e. pseudopatrons) were trained to act a standardized scene of obvious intoxication at the licensed premises inside the arenas as well as at the entrances to the arenas. Observers monitored all the attempts. The prevention strategies were initiated during 2016 and are still ongoing.

**Results:** The follow-up study demonstrate significant increases in denial rate towards obviously intoxicated spectators both at the entrances (12.9% vs. 32.8%,  $p=0.005$ ) and denial of alcohol service at licensed premises inside the arena (31.8% vs. 56.8%,  $p<0.001$ ).

**Conclusions:** The results indicate that the staff's intervention rates towards obviously intoxicated spectators at SPFL games have increased, which can probably be explained by the implementation of the multi-component alcohol prevention program. Data collected in the control area remains to be analyzed.

## Poster 1.9

**Tobias Elgan, Natalie Durbeej and Johanna Gripenberg**

***Alcohol prevention at sport stadiums: Effects from a 2-year follow-up study using biological sampling to measure intoxication levels among spectators***

**Speaker:** Tobias Elgan

**Introduction:** Alcohol intoxication and alcohol-related problems among spectators at sporting events is of great concern. Swedish authorities and key stakeholders therefore called for action to be taken. In 2015, our research group at STAD (Stockholm Prevents Alcohol and Drug Problems) initiated a novel research project with the aim to reduce intoxication levels and alcohol-related problems at large sport stadiums hosting games in the Swedish Premier Football League (SPFL). The implemented prevention strategies are based on a multi-component intervention program.

**Aim:** To measure the effects of an alcohol prevention program using blood alcohol concentration (BAC) levels among spectators at games in the SPFL.

**Methods:** A multi-component intervention program was developed and tested in a quasi-experimental control group study using a repeated cross-sectional design. Following baseline data collection in 2015 ( $n=3351$ ), the intervention was implemented during 2016 and is still ongoing. Follow-up data were collected during 2016 ( $n=1449$ ) and 2017 ( $n=2514$ ). The setting was all arenas hosting SPFL games in the two largest cities in Sweden, Stockholm (intervention area) and Gothenburg (control area). Spectators were randomly selected at various sections inside the arenas and actual BAC-levels were measured using breath analyzers.

**Results:** Results from the intervention area demonstrate a statistically significant decrease ( $p<0.001$ ) over time on all alcohol consumption outcomes among spectators. The mean BAC-levels among spectators decreased from 0.63 in 2015 to 0.57‰ in 2017, the proportion having a BAC-level  $> 0\%$  decreased from 49.7 to 42.5%, and the proportion having a BAC-level of  $> 1.0\%$  decreased from 9.7 to 5.9%.

**Conclusions:** Results indicate that the alcohol prevention program has had an impact on the alcohol consumption patterns among spectators at the SPFL. Next, data from the control area will be analyzed and compared to the intervention area.

## Poster 1.10

**Sigrid Vorobjov**

***To use or not to use, factors related to the non-use of cannabis in case of a real opportunity to use the drug***

**Aim:** To study cannabis use and the factors related to cannabis non-use among students who have had the opportunity to use cannabis and to identify possible protective factors to resist.

**Methods:** The sample consisted of 15- to 16-year-old students who participated in the European School Survey Project (ESPAD) in 2007, 2011 and 2015 in Estonia. Cannabis involvement was classified: "lifetime cannabis use" ( $n=1878$ ) and "cannabis never-used while encountering at least one cannabis use opportunity" ( $n=1880$ ). After adjusting for study year, gender, parents' educational level, perceived socioeconomic status and living with both parents the odds ratios (AORs) were calculated using logistic regression.

**Results:** The prevalence of lifetime cannabis use in Estonia was stable across three survey years, in average 26%. While the lifetime exposure to cannabis use opportunity

decreased from 54% to 48%, the use of cannabis among those exposed to a cannabis use opportunity increased from 50% to 54% during the years from 2007 to 2015. Every second student who had the opportunity to use cannabis, used the drug. Considering even minimal cannabis use as a moderate or great risk, abstinence from daily smoking and not being intoxicated with alcohol were related to lower likelihood to use cannabis. Parental knowledge about where and with whom their child is spending his or her time and parent child relationship quality was related to lower odds in using cannabis. Conclusions: High exposure to a cannabis use opportunity and a high prevalence of cannabis use among those exposed to drug use, stresses the importance of developing resistance skills and techniques for children and provision of parenting practices and useful recommendations of what parents can do to prevent underage substance use.

### Poster 1.11

**Lluís Ballester, Carmen Orte, Marga Vives, Rosario Pozo and Lydia Sánchez**

*The importance of teachers' evaluation in an evidence-based program. The example of Universal Family Competence Program*

Speaker: Lluís Ballester

The Family Competence Program (PCF) is the adaptation made in Spain by the GIFES-UIB Group of Strengthening Families Program (SFP). It is based on scientific evidence of multicomponent type program, it is aimed at preventing drug use and other behavioral problems in children. The complete program includes three simultaneous programs: one aimed at parents, one aimed at children and a third one aimed at the family for joint work. Universal Family Competence Program (PCF-U) are focus on families with children from 10 to 14 years old.

Evaluation of PCF-U consist in two parts: 1) evaluation of participants (pre and post test) and 2) evaluation of the process (of each session).

First part (evaluation of participants) the information are obtained by children: Kumpfer (1989) BASC-1 (Reynolds & Kamphaus, 2004) and questionnaire about tobacco, alcohol and drugs (Macià 1995); by parents: Kumpfer (1989), BASC-2 (Reynolds & Kamphaus, 2004); and ESFA (Barraca & Lopez-Yarto, 2017) and by teachers. Principal obstacles that have been identified compiling teachers' information of PCF has the no previous information that they have about the family program and the possible no-link with items that include in their questionnaire with what they really could evaluated in their classroom.

The aim of this communication is focus on the evaluation of teachers. This questionnaire have three parts: 1) a brief

explication about PCF-U that includes the importance and the aim of the evaluation; 2) scholar aspects (course attendance, justification of non-attendance, special education needs, parents attendance of parents to scholar meetings and number of expulsions of the student). Last part is the selection and the adaptation of BASC-3 scales (Reynolds y Kamphaus, 2004): aggressiveness, social skills, leadership, behavioral problems and isolation

### Poster 1.12

**Carmen Orte, Belén Pascual, Marga Vives, Joan Amer, Maria Antonia Gomila and Miren Fernández-De-Álava**

*Training needs among prevention professionals in Spain: The European Universal Prevention Curriculum*

Speaker: Joan Amer

Agents involved in the fields of education, social work, and health care usually show greater interest in implementing evidence-based programs (Borntrager, Chorpita, Higa-McMillan, and Weisz, 2009; Webb, 2001). Evidence-based programs are highly developed in the United States of America, but now the trend towards these programs is coming to Europe (Axford, Elliott, and Little, 2012). In order to meet health needs and the social challenges to improving the coverage and quality of universal prevention work (Bernat, and Resnick, 2006; EMCDDA, 2017), the UPC training series was designed following the International Standards on Drug Use Prevention (UNODC, 2009; 2015), and the European Drug Prevention Quality Standards (EMCDDA, 2011).

At present, the UPC training series is being pilot-implemented in nine European countries (Belgium, Estonia, Germany, Italy, Poland, Czech Republic, Spain, Slovenia, and Croatia) under the name of EUPC (European Universal Prevention Curriculum). Seven semi-structured interviews were employed along with three focus groups in order to assess the training prevention needs and to know how, that being the case, training prevention needs can be addressed through evidence-based practice. The sample was 36 participants. Interviews included four academics and three government drug prevention leaders. Concerning focus groups, the first group included agents from government agencies and drug prevention NGOs. The second was composed by seven academics from disciplines such as Health Science, Psychology and Pedagogy. The third group had 11 participants doing their PhD, Master's degree, or in their final undergraduate year.

Drug prevention agents, academics and students agreed upon the lack of recognition of the prevention agent and the need of definition of goals, skills and competences of drug prevention agents. In relation to training, a broader



perspective should be incorporated, a perspective that considers the role of consumption embedded in youth cultural values and specific social settings (such as nightlife). About evidence-based practice, participants highlighted that those are not still mainstream and that taught theories should be further intertwined with recent empirical findings. Therefore, the current research acknowledges the need to forge a common curriculum [in Spain and other European countries] on drug prevention, both at the professional arena and at universities.

### Poster 1.13

**Anna K Strandberg, Pia Kvillemo and Johanna Gripenberg**

#### ***Substance use patterns and related problems among youths visiting youth health clinics in Sweden***

Speaker: Pia Kvillemo

Introduction: Alcohol consumption often increases during adolescence and some youths also try other substances. An early alcohol drinking onset, binge drinking and the use of other drugs is associated with various types of negative consequences. There is a need to identify arenas where youths can be reached by alcohol and drug prevention activities.

Aim: To explore substance use patterns and related problems among youths visiting youth health clinics in Stockholm, with the goal of developing prevention strategies.

Method: An anonymous questionnaire was administrated to visitors at 11 youth health clinics in Stockholm county during autumn 2016. The questionnaire comprised questions about alcohol and drug use, risky sexual behavior (RSB), sexual abuse, and mental health. Descriptive statistics and chi-square test were used to analyze the data.

Results: 328 youths aged 15 and 27 ( $m = 18.8$  years, 89% girls) completed the questionnaire. Based on cut-off scores of 4 for girls and 5 for boys on Audit C, 61.7% of respondents had a risky alcohol consumption (RAC). Also, 41.8% of respondents had tried another drug, primarily cannabis (77%,  $n = 102$ ). Individuals who had RAC also reported significantly higher levels of RSB compared to those without RAC. Non-students reported higher levels of both RAC and RSB compared to students. One third of respondents showed signs of mental health problems ( $\geq 16$  points on GHQ 12), 45.5% had experienced physical contact in a sexual way against their will, with a larger proportion of girls reporting this (49.5% girls vs. 21.9% boys,  $p < .01$ ), and 15.2% had been forced to sex against their will.

Conclusion: Youths visiting youth health clinics is a vulnerable group with regard to risk behaviors and related problems. Youth health clinics thus are important arenas where youth can be reached by prevention strategies focusing on alcohol, drugs and sexual health.

### Poster 1.14

**Andréa Leite Ribeiro, Wanderson Flor Do Nascimento and Cláudio Lorenzo**

#### ***Harmful effects of the alcohol and other drugs policy implementing strategies in Brazil***

Speaker: Andréa Leite Ribeiro

The objective of this paper is to think over the harmful effects of the alcohol and drug policy strategies in Brazil, based on studies of legislation and literature, considering that the most affected are the vulnerable young black ones. Throughout the history of drug policy in Brazil, we can see changes in legislation, which, starting from the psychiatric reform, begin to understand the suffering caused by using alcohol and other drugs as a problem to be treated by the health system and not by the system of justice. The concepts of extended clinic, autonomy, harm reduction, were incorporated into the strategies of the policy, such as the Center for alcohol and other drug attention as well as partner services for integral care of users. However, the practice has been distancing itself from non-asylum and exclusionary intervention, contrary to what is based on scientific evidence, and is gradually approaching a reductionist understanding of the phenomenon through authoritarian, prison and manicomial practices. The analysis of the application of the current policy on alcohol and other drugs indicates that it has not produced positive effects, especially among the most vulnerable, with an increase in prisons, murders, and street people. The current policy based on the war on drugs has turned out to be a policy of war for people who use drugs, with the profile of young blacks and the most vulnerable people, with the need of enlarge discussion and understanding of the phenomenon, aiming the modification of hygienist practices, segregators and promoters of social exclusion and inequity, towards a preventive and health care policy.

### Poster 1.15

**Aleksandra Kaczmarek and Mariann Skar**

#### ***Better consumer information on alcohol labels as a prevention tool***

Speaker: Aleksandra Kaczmarek

Product labels can serve a number of purposes, providing information about the product to the consumer, enticing

the consumer to buy the product and informing consumers of dangers and health risks from the product.

Due to insufficient labelling, when a consumer drinks an alcoholic beverage, there is almost 100% chance that they do not know what they are drinking.

Through its advocacy efforts undertaken over last 10 years, European Alcohol Policy Alliance has set the agenda in this area in the European Union. In 2011 the European Commission exempted alcoholic beverages from obligation to list ingredients and nutritional information. In 2017, European Commission stated that - there are no objective reasons for such an exemption.

This presentation will outline the main policy objectives and activities undertaken by Eurocare on its path to provisions for better labelling of alcoholic beverages.

Methods: Eurocare has over the years undertaken a range of activities: production of publications, consumer surveys, organisation of events in the European Parliament and most recently intensified social media presence.

Conclusions: The topic of alcohol labelling and how it can be utilised to inform consumers and reduce the harm caused by alcohol, is at a crucial point. Eurocare would like to present its work on the topic to inspire other participants to take on board this neglected but important topic in alcohol and food policy area.

## Poster 1.16

**Maria Sandra Tricas-Sauras, Aleksandra Kaczmarek and Mariann Skar**

### *The FYFA project: Preventive policies in the sport settings*

Speaker: Aleksandra Kaczmarek

Young people who drink alcohol are placed at enhanced risk of immediate and longer term health and social harms. Harmful use of alcohol has been linked to more than 200 disease and injury conditions and causes a large economic and social burden in societies (WHO, 2014). Underage drinking and heavy episodic drinking of alcohol is of particular concern in Europe because of its impact on health and welfare of the population. A number of studies have linked alcohol use by young people to various problems, both short and long term. FYFA project (focus on youth, football and alcohol) aims to identify best practices in prevention of alcohol related harm in the sport setting. We hope to contribute towards reducing alcohol related harm with a special focus on underage drinking. We aim at generating good practices targeting the reduction of heavy episodic drinking among young people and developing guidelines on this matter for youth sport clubs across Europe. A multimethod design is

proposed for this comprehensive project with nine main strands focusing on international, national and local levels. This project will review policies and practices relating to young people, alcohol and international sport, to gather evidence of best practices. Also, interviews with high-level stakeholders and alcohol industry representatives will be conducted. Local sport stakeholders and young people will be interviewed and communication materials will be produced on alcohol policy and early intervention. A video summarising the results on youth's, attitudes and behaviours towards alcohol and what they would consider to be effective practices will be produced. A specific plan to facilitate communication, coordinate and monitor all the axes of this project is in place involving all partners. An evaluation plan, as well as an interim and final evaluation reports will be produced to ensure quality of the process. FYFA will promote the exchange of knowledge and good practices between and within European countries, to raise awareness of alcohol related harm amongst policy-makers and citizens. A final conference will be organised to present our evidence based guidelines.

## Poster 1.17

**Simon-Peter Neumer, Monica Martinussen, Brynhildur Axelsdottir, Reidar Jakobsen, Thomas Jozefiak and Muirne Paap**

### *PsykTestBarn.no (PsychTestChild): Bridging the Gap Between Practice and Research Evidence*

Speaker: Simon-Peter Neumer

Psychological tests are widely used for screening, treatment planning and evaluation research. Tests applied in Norway are often lacking information concerning their psychometric quality, including documentation of reliability, validity and Norwegian norms. PsykTestBarn.no is a webpage and an open-access scientific journal. The webpage systematic reviews psychometric properties of Norwegian tests and diagnostic systems assessing mental health, abilities, and other traits among children and young people. These reviews provide a rigorous assessment of psychological tests following the European Federation of Psychologists' Associations' (EFPA) test review model. Systematic literature searches are conducted to identify studies that report at least one of the following types of data: translation and cultural adaptation, norms, reliability, validity, and based on Scandinavian population samples. The review is conducted by two independent authors, and the article is peer-reviewed, similar to the usual evaluation of scientific papers, and finally, reviewed and approved by the editor. The goal is to evaluate the most widely used psychological tests in Norway and update published reviews with new evidence arising from recent publications on psychometric properties. So far, the systematic reviews



of 56 psychological tests have been published, and more than 91 tests are registered by users for further evaluation. In addition, we hope to raise the awareness among test users of the importance of using high-quality tests during the assessment of children and young people, and that PsykTestBarn may be a source of easily accessible information about the psychometric properties of tests available in Norway. The presentation will describe the procedures applied during the review process and provide an overview concerning webpage use based on Google analytics, and the quality of the reviewed tests.

## Poster 1.18

**Ana López-Durán, Carmela Martínez-Vispo, María Barroso and Elisardo Becoña**

### *Development and validation of a Mobile App to prevent smoking relapse*

Speaker: Elisardo Becoña

Mobile Apps have become technological tools of great help to improve health-related behaviors. In fact, it can be used for health education, prevention and also as a treatment complement. One of the health-related behaviors where the development of Mobile Apps has been more important in recent years is smoking behavior. In general, existing Apps aim to increase motivation to quit smoking and to maintain abstinence once achieved. The main objective of this study is to present the development process of a Mobile App for smokers who have quit smoking through a cognitive-behavior smoking cessation intervention, in order to prevent smoking relapse since this is a very frequent phenomenon. In this study, the Mobile App development has shown that it is necessary to adapt the contents to the specific behavior targeted (smoking), to the quit smoking process and abstinence maintenance (relapse prevention), gender, type of smokers (i.e. with comorbidity), motivational level, dependence severity, possible high-risk situations that they have to manage, etc. In addition to the Mobile App development process description, we will provide the results of a pilot test that aim to validate the appropriate Mobile App performance. Thus, we will evaluate if the contents are attractive, useful, oriented to the objective that is intended, and, fundamentally, if it is an accessible and easy to use tool for preventing smoking relapse.

## Poster 1.19

**Henriette Kyrrestad Strøm, Sabine Kaiser and Sturla Fossum**

### *Prevalence rates of cyberbullying among Norwegian adolescents and support for cyberbully-victims*

Speaker: Henriette Kyrrestad Strøm

Bullying victimization, both traditionally and online, is causal related with poorer mental health and substance use and associated with psychosomatic health complaints and psychosocial problems. The technological development may open up for new opportunities to implement innovative measures that both promote mental health and prevent the development of mental disorders. The main purpose of this study is two folded. First, to present the prevalence rate of cyberbullying among junior high schools students in northern Norway from the "PIN-study". Second, to present an idea about the development of a mobile application for young people who have been exposed to cyberbullying, from the protocol of the "UngRisk" project.

Methods: The "PIN-study" is an epidemiological research project in Norway and part of a multinational study from the European and Asian adolescent and child mental health study called the "Adolescent health in a digital world: Associations of well-being, mental health and help-seeking with risk behaviors". The Norwegian data was collected from junior high school students (N = 2124). Measures of being cyberbullied or being engaged in cyberbullying others was collected.

Results: The prevalence of adolescents experiencing cyberbullying was 11.7% and the prevalence of adolescents being engaged in cyberbullying others was 4.3%. Boys had significantly lower odds for being cyberbullied as compared to girls (OR = .56; 95% CI: .43 – .74), but significantly higher odds for being engaged in cyberbullying others (OR = 1.65; 95% CI: 1.07 – 2.53).

Conclusion: The rate of being cyberbullied is high among Norwegian adolescents and the consequences can be serious. Adolescents may find it difficult to tell their parents or other adults about their experiences of being bullied or cyberbullied. A mobile application may be a useful resource to better cope when being cyberbullied. They are easy and always accessible, and offer anonymity. The aim of the "UngRisk" project is to develop an intervention that increases cyber-coping strategies for adolescents who have been exposed to cyberbullying.

## Poster 1.20

**Olga Orosova, Maria Bacikova, Jozef Benka and Anna Janovska**

### *Gender, Unplugged intervention and resilience*

Speaker: Olga Orosova

**Introduction:** Resilience is an important factor of successful adaptation, particularly when facing a challenging or threatening situation. Therefore, monitoring individual's resilience and its changes in intervention programs such as Unplugged is important. The aim of this study was to explore the main effect of time and the interaction effects of gender and Unplugged intervention program on schoolchildren's resilience.

**Methods:** The study was carried out as a cluster randomized controlled trial with data collection conducted immediately before (T1) and then 3 months (T2) and 18 months (T3) after the program Unplugged was implemented in Slovak primary schools. The program involved 1295 participating schoolchildren (M=11.52; 46.8% boys). The schools were randomly assigned to either experimental (EG, n=641) or control group (CG, n=654). EG was exposed to the program Unplugged. The sample was finally divided into 3 categories where the EG was further divided according the level of commitment shown by the teachers implementing the program: EG with a committed teacher, EG with an uncommitted teacher, and CG. The Adolescent Resilience Scale (Oshio et al., 2003) was used with the aim to measure the psychological features of resilient individuals at T1, T2 and T3. The analyses were conducted using a GLM Repeated Measures procedure.

**Results:** The results of GLM repeated measure analysis indicated a significant main effect of time on resilience ( $F=6.58$ ,  $p=0.001$ ). The results also showed significant interaction effects of gender x resilience ( $F=5.40$ ,  $p=0.001$ ) and gender x Unplugged participation x resilience ( $F=3.17$ ,  $p=0.05$ ). Tests of Within-subjects Contrasts indicated (i) a significant decrease in resilience from T1 to T3 ( $F=7.50$ ,  $p=0.01$ ), (ii) a significant decrease in resilience from T1 to T3 among boys ( $F=5.61$ ,  $p=0.05$ ), (iii) EG with a committed teacher showed a significant increase in resilience only among girls from T1 to T3 ( $F=3.93$ ,  $p=0.05$ ).

**Conclusion:** A persisting effect of the Unplugged intervention on resilience, i.e. 18 months after the Unplugged intervention administration, was found only among girls. The commitment of teachers implementing the program was seen to play a critical role in reaching expected level of implementation fidelity of the intervention.

## Poster 1.21

**Belén Quintero Ordóñez, María Aránzazu Fernández Rodríguez, Yoana Granero Salas, Nicolás Condes Balboa, Marianella Lorenzo Toyos, Virginia Pérez Fernández, Jesús Pérez de Marco, Cristina Delgado García, Enrique González Conde, M<sup>a</sup> Paz de La Puente Martín, Oriol Esculies I Plou, M<sup>a</sup> Dolores Eslava Suanes and Ignacio González López**

### *Evaluation of the School and Family Prevention Program "Juego de LLaves" of the Asociación Proyecto Hombre: Results and conclusions*

Speaker: Belén Quintero Ordóñez

The National Commission for Drug Prevention of the Asociación Proyecto Hombre in Spain, together with an evaluation expert's team of the University of Cordoba, designed the evaluation of the social and emotional impact of the school-based and family prevention program "Juego de Llaves", under the format of an evaluative research and the CIPP evaluation model. "Juego de llaves" is an universal school based and family prevention program of the Asociación Proyecto Hombre. The Program is aimed at students in secondary education (12-16 years) and their families. Its main objective is to prevent or delay drug use and other addictive behaviors. The beneficiaries of the developed evaluation have been three: participating students, their families and the teaching staff responsible for implementing the Program. The sample is divided into 32 schools distributed in six regions, with a total of 4.195 students, 168 families and 408 teachers. 90,3% of the those schools participating were public schools. The results obtained show a high satisfaction with the methodology, the available resources and the timing of the Program. In the same way, the Program has allowed students and families feel identified with the contents worked. On the other hand, it has been found that there is a differential impact of the program in terms of gender in some of the dimensions that are addressed through it. Some improvements to introduce do allusion to review some activities that allow little participation as they are more theoretical, plus tackling the raising awareness of the teachers on their transverse task that contributes to the Program.



## Poster 1.22

**Frauke Wichmann, Laging Marion, Michael Braun, Johanna Lubasch, Thomas Ganz, Saskia Muellmann, Thomas Heidenreich and Claudia Pischke**

***Using information on contextual factors for developing a tailored implementation strategy for web-based substance use prevention programs at German universities – Results of the DIOS-study***

Speaker: Frauke Wichmann

Due to the prevention law which was passed in Germany in 2015, there is an increasing interest in disseminating evidence-based preventive interventions in real-life settings, including programs for the prevention of risky substance use in the university setting. However, little is known about how to best tailor the implementation process to contextual factors and capacities of individual universities. The purpose of the study was to use information on local contextual factors to develop a tailored action plan to implement evidence-based programs for the prevention of risky substance use. Forty-three semi-structured interviews with key stakeholders at ten German universities were conducted. Interviewees were asked questions regarding perceived facilitators and barriers of students' participation in preventive programs, needs for prevention at the individual university, as well as existing organizational structures that could support the implementation process. Interview transcripts were analysed by two independent researchers, using qualitative content analysis. While overall capacity for implementing web-based interventions across participating universities was generally low (reported elsewhere), different sets of factors facilitating or hindering implementation were identified. Regarding the first set of factors, stakeholders reported student characteristics (e.g., fear of stigmatization) and course load affecting program participation. The second set of factors was related to heterogeneity in organizational structures for supporting substance use prevention at individual universities. At some universities, a few individuals at health promotion or social work.

## Poster 1.23

**José Manuel Martínez-Montilla, Sara Amo-Cano, Ana Magdalena Vargas-Martínez, María Parra-Gallego, Andrea García-García and Marta Lima-Serrano**

***Factors associated with binge drinking in adolescents, through the I-Change model.***

Speaker: Marta Lima-Serrano

Introduction: Binge drinking (BD), can be defined as the consumption of 4/5 or more standard glasses of alcohol for women / men, respectively, in a short time<sup>1</sup>, being a great problem worldwide<sup>2</sup>. In Spain, in 2016, 31.7% of adolescents between 14 and 18 had done BD<sup>3</sup>. The I-Change Model studies the acquisition of behaviors in health, being widely used in alcohol consumption and BD<sup>4,5</sup>. Our objective is to know the factors associated with BD in adolescents, through the I-Change model.

Methodology: We conducted a Cross-sectional study, with 1247 high school students of Andalusia in 2017, through an online questionnaire. A descriptive analysis, and multilevel, at three levels of control, through the SPSS 21, was carried out.

Results: The average age was 16.32 years (SD = 1.066). 661 (53%) were girls, 545 (43.7%) were 4th of CSE, 515 (41.3%) of 1st of Baccalaureate, and 187 (15%) of Vocational Training, 767 (61.15%) were Catholics and 405 (32.5%) had no religion. 832 (66.7%) drank sometime, and 487 (39.1%) performed BD in the last 30 days. Multilevel analysis showed a significant association of BD with being older ( $p = 0.003$ ), being male ( $p = 0.004$ ), not having a relationship ( $p = 0.038$ ), being Catholic ( $p = 0.008$ ) and having more of weekly money ( $p = 0.009$ ). Regarding the I-Change Model, BD was significantly associated with having a positive attitude towards alcohol ( $p < 0.001$ ), lower risk perception ( $p = 0.031$ ), higher social model ( $p < 0.001$ ), higher social norm ( $p = 0.042$ ), and lower self-efficacy ( $p < 0.001$ ).

Conclusions: BD is a public health problem in Spanish adolescents. The results highlight the importance of knowing the factors associated with BD, using the I-Change Model for the change of health generating behaviors, which should be taken into account in health promotion programs.

## Poster 1.24

Lu Yu, Jonathan Pettigrew, Youngju Shin, Maria Castillo and Joshua Allsup

### *Family Argumentativeness and Expressiveness and Adolescent Dating Violence and Externalizing Behaviors*

Speaker: Jonathan Pettigrew

**Background and Purpose:** The influence of interparental violence on adolescent violent and other problem behaviors has been established by existing studies, however, little is known about how other aspects of family communication may have an impact. Framed by Social Learning Theory, we examine two family environment factors, argumentativeness and expressiveness, and to see 1) whether family argumentativeness and expressiveness influenced adolescent dating violence and externalizing behaviors and if there was an interaction effect; 2) whether attitude toward violence and parent-child risk communication about risk behaviors mediated these effects.

**Methods:** Data were collected as part of a drug and violence prevention program in Nicaragua. The sample used for this study were 1,651 adolescents (52% female) who were not exposed to the intervention at the time of the survey completion. The majority of the participants were in 7th or 8th grades with a mean age of 12.87 years ( $SD = 1.06$ ). Data were analyzed in Mplus 8 using path analysis.

**Results:** Significant direct effects of family argumentativeness were identified for adolescent dating violence ( $\beta = .11, p < .01$ ) and externalizing behaviors ( $\beta = .19, p < .001$ ). Although expressiveness did not show a significant effect, interaction effects were identified for both dating violence ( $\beta = .07, p < .05$ ) and externalizing behaviors ( $\beta = .07, p < .05$ ). Attitude toward violence significantly mediated the effects of both family argumentativeness ( $\beta = .03, 95\% CI: .02, .04$ ) and expressiveness ( $\beta = -.03, 95\% CI: -.04, -.02$ ) on adolescent dating violence. Similarly, significant mediation effects were identified for attitude toward violence for both family argumentativeness ( $\beta = .03, 95\% CI: .02, .04$ ) and expressiveness ( $\beta = -.03, 95\% CI: -.04, -.02$ ) on externalizing behaviors.

**Discussion and Conclusion:** Findings highlight the importance of family communication as it relates to adolescents' attitude toward violence, and in turn, their engagement in dating violence and externalizing behaviors. Further, findings suggest that negative modeling (argumentativeness) is a more powerful influence on violent attitudes and behaviors than positive modeling (expressiveness). Prevention efforts that promote healthy communication and especially that eliminate negative communication are suggested for this context.

## Poster 1.25

Boris Chapoton, Veronique Regnier Denois and Franck Chauvin

### *Teenagers' use of different Social Network Sites and associated behaviours: an insight from focus groups made with 11 to 16 years old French adolescents*

Speaker: Boris Chapoton

The use of Social Networking Sites (SNS) has grown tremendously worldwide passing from 0.97 billion users in 2010 to 2.62 billion users in 2018. More than one out of two teenagers have an account on at least one SNS and are using it on a daily basis. Concerns associated to the impact of SNS use and to the content shared within these on teenager's behaviour have been raised. Still, little is known about teenagers' own perception of such use. Our study aimed to get an insight of adolescents' use of SNS, their interaction with the content posted and their perception of posts associated to alcohol or tobacco. Thirty-nine French adolescents (22 boys) aged 11 to 16 years participated in the study. Ten semi-structured focus groups (7 mixed groups, 2 all-girls groups, 1 all-boys group) were conducted. Teenagers reported in majority to use Snapchat to communicate with their friends on a regular basis. On the contrary of Instagram that was also widely used, teenagers appreciated that their posts lasted less than 48h. "Likes" were given to the contacts they liked no matter the content. Few of the teenagers used twitter or Facebook. This latest was considered to be for older people or a way to fill websites identification forms faster. Teenagers reported not to see much alcohol or tobacco related post, that their contact who shared some wanted to "show off". Whereas tobacco was clearly identified as at risk for their health, alcohol was not seen as bad for health but rather as a common practice that they could have experienced with their family or/and that they will experienced when getting in the next years or so. Participants thought to be moderately influenced by the content they were facing but not to have the power to influence other with their posts. Development of media education program should be considered to empower teenagers to face peer-to-peer digital influenced.

## Poster 1.26

Helena Križan

### *Testing the family resilience model: a research proposal*

**Introduction:** The concept of family resilience has been established as the result of a new way of looking at family crises where they are seen as opportunities for families to grow and adapt. Family resilience is often seen as a process where a family that is faced with significant



hardship manages to achieve good family outcomes due to certain protective factors/mechanisms. One of the most widely used models of family resilience was created by Froma Walsh. Even though many preventive interventions around the world are already based on promoting family resilience, the theoretical basis of the model needs further empirical testing.

**Aims:** The aim of this study is to test the suggested theoretical model of family resilience by looking into the components of family resilience (family resilience factors, risks and positive outcome) in the families of Zagreb high school students and the relations between those components. Research problems also cover determining the differences in the perception of the components of family resilience (family resilience factors, risks and positive outcome) between the parents and their children. This research also aims to contribute to the development of the methodology of testing family resources.

**Methods:** A quantitative research model will be used with a convenience sample of 300 families of Zagreb high school students. The family will be represented by a high school student and another adult family member (parent or other guardian). Their perspective will be combined into a unique family perspective using structural equation modeling. Family risk will be operationalized as the sum of disruptive life changes that affect the family. The family resilience factors examined in this research will be based on the theory of the family resilience system by Froma Walsh. Positive family outcomes will be operationalized as family life satisfaction and satisfaction with family adaptation. The research design presented here will be used for a doctoral thesis at the University of Zagreb and is presented here to discuss methodology, difficulties and opportunities. The research is part of the project Specific characteristics of families at risk: contribution to complex intervention planning that is supported by the Croatian Science Foundation.

## Poster 1.27

**Brittany C.L. Lange and Anders Bach-Mortensen**

### ***Stakeholder Perceptions of Supervised Injection Facilities: A Qualitative Synthesis***

Speaker: Brittany C.L. Lange

**Introduction:** Several interventions have been developed to address the growing burden of substance use and abuse globally. One intervention that has been subject to international attention and controversy is supervised injection facilities (SIFs). Despite research showing the benefits of SIFs, research has also shown these facilities to be controversial among some stakeholders, which may prevent future scale-up. Given the quintessential role of stakeholder perception in the future of SIFs, this

systematic review aimed to synthesize stakeholder perceptions of these facilities.

**Methods:** Nine academic databases and various search engines were searched. Additionally, experts and health departments in countries with SIFs were contacted for potential grey literature. Screening, full text review, data extraction, and quality determinations were conducted independently by both authors. All extracted perceptions were uploaded to NVivo and coded thematically.

**Results:** The search resulted in the inclusion of 58 articles. Stakeholder perceptions were synthesized by type of SIF (sanctioned, unsanctioned, and yet to be developed) and by stakeholder group. Ultimately, the key themes included benefits of SIFs, such as safety and a reduction in public drug use; concerns related to SIFs, such as challenges stemming from existing rules and regulations in SIFs, and their potential to increase drug use/users in the community; suggestions for SIFs, such as their location; and factors influencing their implementation, such as a lack of evidence and the need to educate the public on drug use.

**Conclusion:** This review identified, appraised, and synthesized existing literature on stakeholder perceptions regarding SIFs. As such, it constitutes a central resource in informing current debates on the implementation and scale-up of SIFs. Importantly, the review highlights benefits, key areas of concern, and suggestions of stakeholders, which may help facilitate a more informed discussion among policy-makers, researchers, and advocates on the development and continuation of these facilities.

## Poster 1.28

**Giovanni Aresi, Michael Cleveland, Alessio Vieno, Franca Beccaria, Robert Turrise and Elena Marta**

### ***Differences between youth drinking cultures in Italy and the U.S.A. What are the implications for practice?***

Speaker: Giovanni Aresi

There is a growing body of research on alcohol misuse interventions for young people and specifically college students. Most interventions, however, have been designed and implemented in the U.S.A., and the degree of applicability and required adaption in other contexts and (drinking) cultures is unclear. The U.S.A. and Italy, respectively, represent paradigmatic examples of intoxication ('dry') and non-intoxication drinking ('wet') cultures, allowing for meaningful cross-cultural comparisons. This study used a sequential explanatory mixed method design to compare the drinking cultures (i.e., schema of beliefs, practices, and values maintained

by a society regarding alcohol use) of youth in Italy and the U.S.A. Quantitative and qualitative data were given equal priority and analyzed in two consecutive phases:

**Phase 1.** Multigroup Latent Class Analysis (LCA) was used to identify subgroups of drinkers (i.e., drinking patterns) from samples of Italian (N = 424) and American (N = 323) college students (age range = 18-22). Four subgroups were found in both countries. Most participants concentrated drinking during weekends, with a notable subgroup of weekend risky drinkers. However, comparable subgroups of drinkers differed across countries in terms of the association between drinking patterns, risky drinking, and number of negative alcohol-related consequences experienced. For example, daily drinking was differentially associated with probabilities of reporting risky drinking behaviours (e.g., episodes of drunkenness) and experiencing negative consequences among American (high probabilities/consequences) and Italian youth (moderate probabilities/consequences).

**Phase 2.** Focus group interviews with 41 Italian and 47 American youth were used to collect narratives on features of the two drinking cultures, and elaborate on the quantitative results obtained in the first phase. Preliminary results indicate there are differences in the meaning of alcohol consumption itself (e.g., whether alcohol is predominantly used to reach intoxication or has other purposes), which are influenced by alcohol availability, underlying cultural assumptions, and the policy context (i.e., drinking age).

Results of this study will be discussed in light of the available research on effective alcohol misuse interventions for young people, suggesting directions for future research and implications for practice in countries where a 'wet', non-intoxication drinking culture is predominant.

## Poster 1.29

**Mieke Snijder, Lexine Stapinski, Danielle Bradd, Briana Lees, James Ward, Nicola Newton and Maree Teesson**

***Promoting Positive Choices for Aboriginal and Torres Strait Islander youth: development of an online drug prevention portal***

Speaker: Mieke Snijder

**Background:** Prevalence of substance-use related harms are higher in Aboriginal and Torres Strait Islander people compared to non-Indigenous people. The culturally diverse and complex context in which these harms occur accentuates the need for culturally appropriate prevention approaches, education and resources for Indigenous young people. This project aims to improve

the dissemination of culturally-appropriate and evidence-based drug prevention resources through the development of an online alcohol and other drugs portal that provides an resources for Indigenous students, parents and teachers.

**Methods:** The Positive Choices – Aboriginal and Torres Strait Islander portal was developed through in-depth consultations and focus testing with teachers, parents, students, and service providers. A scoping review of existing substance-use prevention resources was conducted to identify existing evidence-based programs using NHMRC guidelines. Fact sheets were written by researchers based on literature reviews and consultations. User testing was conducted by interviewing 12 Aboriginal and Torres Strait Islander media and communications workers around the country.

**Results:** Consultations indicated a preference for culturally appropriate substance-use prevention materials that had a strengths-based approach, enhanced cultural knowledge, were empowering, and had a harm reduction focus. The scoping review searches identified 107 resources, of which 11 were relevant and met NHMRC evidence-base criteria. User testing feedback indicates Positive Choices is appropriate for Indigenous audiences, is easy to navigate and contains relevant and informative resources for use by school communities. Details of the focus testing with parent, teachers and students will be discussed.

**Conclusions:** The findings of user feedback and testing indicate that the Positive Choices - Aboriginal and Torres Strait Islander portal is appropriate for Indigenous people around the country. The portal provides a much needed opportunity for teachers and parents to access evidence-based drug prevention information.

## Poster 1.30

**Lexine Stapinski, Mieke Snijder, Lucy Grummit, Nicola Newton, Siobhan Lawler and Cath Chapman**

***Implementation and evaluation of Positive Choices: an online initiative to address the evidence-practice gap in substance use prevention***

Speaker: Mieke Snijder

**Background:** Onset of substance use typically occurs during adolescence; thus preventative initiatives need to occur early on, prior to exposure. Schools are an ideal place to implement prevention strategies, with the potential for broad-ranging impact and tailoring of messages to suit students' developmental level. In parallel, parents require guidance about how they can protect against harms associated with substance use. There is increasing evidence that the risk of substance-related harms among teenagers can be reduced substantially with

the right prevention strategies. Despite this, evidence-based substance use prevention approaches are not widely implemented.

**Objectives:** The Positive Choices project aims to address a known gap in the implementation of evidence-based substance use prevention approaches.

**Method:** The online Positive Choices portal was developed to provide a central resource where teachers, students and their parents could easily access evidence-based drug information and prevention strategies. The portal was developed in consultation with drug and alcohol experts, as well as target users in Australia (teachers, parents and students). Research literature and drug education websites were systematically reviewed to identify resources meeting pre-specified inclusion criteria for relevance and quality. Post-launch evaluation was conducted, guided by the Reach, Effectiveness, Adoption, Implementation and Maintenance (RE-AIM) model, with school staff (n=107) and parents (n=50) post-launch to assess the success of the initiative in and determine progress towards evidence-based practice.

**Results:** In the two years since launch, the Positive Choices portal and accompanying webinar series has been accessed by over 126,000 users across Australia and internationally. Evaluation feedback from teachers and parents indicated that the games, videos and factsheets were the most accessed drug prevention resources on the site. Eighty four percent of respondents said they would continue to use the portal, and 89% said they would recommend Positive Choices to a friend or colleague. There was also evidence that use of the portal changed respondents attitude and intentions to implement evidence-based prevention strategies.

**Conclusion:** This study represents the first implementation and evaluation of a national drug prevention initiative in Australia. Findings suggest Positive Choices has achieved broad reach, and has increased awareness and future intentions to implement evidence-based prevention strategies.

## Poster 1.31

**Mieke Snijder, Lexine Stapinski, Danielle Bradd, Briana Lees, James Ward, Katrina Champion, Nicola Newton and Maree Teesson**

***Combining evidence, photos and stories to inform development of computerised drug prevention for Australian Indigenous youth***

**Speaker:** Mieke Snijder

**Background:** computerized substance use prevention programs have been found to be effective for non-

Indigenous secondary students in Australia and internationally. The potential for sustainability, reach and implementation fidelity of computerized programs, combined with the high rates and confidence in technology use among Australian Indigenous youth, make this a promising, innovative approach in substance use prevention for Australian Indigenous secondary students.

**Objective:** This study aims to develop the first culturally appropriate computerized school-based substance use prevention program for Australian Indigenous youth. This presentation will discuss the innovative approaches used in the development of these resources.

**Methods:** Two literature reviews were undertaken to 1) identify effective elements of previous substance use prevention programs with Indigenous Populations and 2) investigate risk and protective factors of substance use for Indigenous Australians. Additionally, researchers partnered with four schools at which focus groups and interviews were conducted with teachers and parents, using an appreciative inquiry approach. Indigenous students participated in a Photovoice project where they took and shared photographs of positive social interactions in their community and their role models. Group sharing of the photographs included a creative story telling session. Students completed a brief empowerment questionnaire before and after the consultation process. User feedback sessions with teachers and students were organised to receive ongoing input in the development of the story lines.

**Results:** Effective elements of substance use prevention included cultural knowledge integration, substance use resistance skills and diversionary activities. Individual, relationship, community and societal risk and protective factors were identified for substance use for Indigenous Australians. Consultations indicated a need for culturally appropriate substance use prevention materials that are empowering and suitable for delivery in a mixed classroom setting. Together with an Indigenous creative agency we developed a computerized prevention program, combining illustrated story telling with classroom activities.

**Implications:** This study is the first to develop an interactive, computerized program for Australian Indigenous secondary students. This study shows how we can integrate research evidence and participants' story into a prevention program.



**Poster 1.32**

**Emina Mehanović, Harsheth Kaur Virk, Ibanga Akanidomo, Juliet Pwajok, Peer Van der Kreeft, Federica Vigna-Taglianti and The Unplugged Nigeria Study Group**

***Correlates of cannabis and other illicit drug use among secondary school students in Nigeria***

Speaker: Emina Mehanović

**Background:** The burden of cannabis and other illicit drug use on adolescents represent a serious public health problem. The majority of studies on risk factors for substance use originate from developed countries, while limited data are available from developing countries. The aim of the present study is to explore factors associated with cannabis and other illicit drug use among Nigerian secondary school students.

**Methods:** The survey involved 32 secondary schools and 4,078 pupils of six geo-political zones (South-South, South-West, South-East, North-Centre, North-West and North-East) and two metropolitan cities (Abuja and Lagos) between December 2015 and January 2016. Socio-demographic characteristics, parental smoking and permissiveness, friends' illicit drug use, risk perceptions and positive beliefs were investigated as correlates of ever use of cannabis and other illicit drugs through multilevel logistic regression models.

**Results:** The prevalence of cannabis use was 7.5%, while the prevalence of other illicit drug use (e.g. amphetamines, cocaine, ecstasy, heroin, inhalants, LSD, codeine, tramadol) was 12.0%. Results of logistic regression models showed that age, living in family structure different from both parents' families, parental smoking, parental permissiveness to smoke, friends' cannabis and other drug use, risk perceptions and beliefs were associated with the increased probability of cannabis and other drug use in adolescence. Having more cars was only related with the probability of cannabis use but not with that of other illicit drugs use.

**Conclusion:** Since young population is dominant in Nigeria, greater investment in adolescents' well-being by reducing the factors that contribute to cannabis and illicit drug use should be prioritized.

**Poster 1.33**

**Emina Mehanović, Harsheth Kaur Virk, Ibanga Akanidomo, Juliet Pwajok, Peer Van der Kreeft, Federica Vigna-Taglianti and Unplugged Nigeria Study Group**

***Correlates of alcohol use and drunkenness among secondary school students in Nigeria***

Speaker: Emina Mehanović

**Background:** Alcohol is the most used substance among adolescents in Nigeria. Studies conducted among secondary school adolescents found a worrisome prevalence of drinking. Moreover, according to WHO report on alcohol and health, Nigeria ranks second for the heavy episodic drinking among senior secondary school adolescents in Africa. While risk factors for alcohol use among adolescents are well documented in Europe and USA, they received less attention in African countries. This study aimed to investigate the factors that contribute to drinking and drunkenness episodes among secondary school adolescents across all six geopolitical zones of Nigeria.

**Methods:** The survey involved 32 secondary schools and 4,078 pupils of six geo-political zones (South-South, South-West, South-East, North-Centre, North-West and North-East) and two metropolitan cities (Abuja and Lagos) between December 2015 and January 2016. Socio-demographic characteristics, parental alcohol use and permissiveness, friends' alcohol use, risk perceptions and positive beliefs indicator were investigated as correlates of lifetime drinking and drunkenness through multilevel logistic regression models.

**Results:** The prevalence of lifetime drinking was 34.0%, while the prevalence of drunkenness episodes was 13.4%. Results of logistic regression models showed that male gender, living in family structure different from both parents' families, parental and friends' alcohol use, parental permissiveness to drink, risk perceptions and beliefs were associated with an increased probability of both drinking and getting drunk. Having more cars was only related with the probability of drinking but not with that of getting drunk.

**Conclusion:** Since young population is dominant in Nigeria, greater investment in adolescents' well-being by reducing the factors that contribute to drinking and drunkenness should be prioritized.

## Poster 1.34

**Federica Vigna-Taglianti, Marta Alesina, Ljiljana Damjanović, Emina Mehanović, Ibanga Akanidomo, Juliet Pwajok, Glen Prichard, Peer van der Kreeft, Harsheth Kaur Virk and The Unplugged Nigeria Coordination Group**

***Knowledge, attitudes and behaviours on tobacco, alcohol and drugs among Nigerian secondary school students: differences by geopolitical zones***

Speaker: Federica Vigna-Taglianti

Background: Nigeria includes six geopolitical zones and one Federal Capital Territory (FCT). The zones differ from each other in many characteristics including health indicators of adult and child population. Substance use among adolescents is a public health concern. However, the available data do not allow a comparison of substance use prevalence and related factors by zone. This study aims to describe knowledge, attitudes, beliefs, risk perceptions, skills and substance use behaviors among Nigerian secondary school students, underlining differences by geopolitical zones.

Methods: The population size of the zones was taken into account in extracting the schools for the study. 32 schools were invited and participated: 6 in NW, 4 in NE, 4 in NC, 2 in FCT, 8 in SW (of which 2 in Lagos), 4 in SE, 4 in SS. A self-completed anonymous questionnaire was created ad hoc for the survey. The questionnaire investigated characteristics of the social environment, tobacco, alcohol and substance use, knowledge, beliefs, and attitudes about substances, the perception of peers and friends use, personal skills and school climate.

Results: 4,078 adolescents (66.4% males) participated in the survey. The mean age was 14.7 years. On average 5.1% of pupils smoked cigarettes at least once in their life, 33.6% drank alcohol, 13.1% had drunkenness episodes, 7.5% used cannabis and 11.6% other illicit drugs, with differences between zones. The highest rates of alcohol use were observed in Lagos and Southern zones, whilst cigarettes, cannabis and other drug use were higher in Northern zones. Knowledge on tobacco, alcohol, and marijuana use were quite low across all zones. Self-esteem, decision-making and refusal skills, risk perceptions and beliefs were lower in students of Northern zones.

Conclusions: The prevalence of adolescent alcohol and substance use in Nigeria is not radically different from that of developed countries. Drug education and prevention activities should be planned and implemented across the country in case of alcohol, and special attention should be paid to cannabis and other illicit drugs in Northern zones.

Prevention activities among adolescents can help to reduce the burden of disease related to cigarettes, alcohol, and drugs in adult ages.

## Poster 1.35

**Carla Rocha, Elisardo Becoña and Gizela Cardoso**

***Riscos & desafios: validation of an additive behaviours and dependencies preventive program among students in higher education***

Speaker: Carla Rocha

It is evident and scientifically proven the need to invest in prevention of Psychoactive Substances use in the context of higher education, particularly among students attending the first year. The present study's goal is to validate a comprehensive program to prevent addictions and addictive behaviours targeting this group. The Riscos & Desafios Program addresses psychoactive substance use behaviours and a wide range of specific risk and protective factors in this population. The sample consisted of 228 first year students from the University of Minho in Portugal. This study included an experimental design, with experimental and control groups, with pre, post-test and follow-up measurements. In addition to collecting sociodemographic and psychoactive substance use data, the instruments used were: AUDIT (Babor et al, 1989), Self-Control Scale (Wills et al., 2007), Sensation Seeking Scale version V (Zuckerman, 1979), Academic Experience Questionnaire (Almeida and Ferreira, 1997), Rosenberg Global Self-esteem Scale (Rosenberg, 1965) and Beck Depression Inventory (Vaz Serra & Pio Abreu, 1973). The results found validated the Riscos & Desafios Program in the extent to which it was verified in the experimental group the reduction of alcohol consumption, the reduction of risk factors and the promotion of protection factors for psychoactive substances use.

## Poster 1.36

**Gizela Cardoso, Carla Rocha, Elisardo Becoña and Anabela Monteiro**

***The riscos & desafios program: process evaluation***

Speaker: Gizela Cardoso

In drug use and abuse prevention scientific domain, several epidemiological studies show a high prevalence of psychoactive substance use among higher education students, especially abusive alcohol consumption. Despite the magnitude of this problem and its consequences, there is little use of effective, structured and continuous prevention strategies in Portugal. The Riscos & Desafios

Program has been designed and validated in order to respond to this need. It is a co-curricular, comprehensive and multi-component competence enhancement based preventive intervention. The Program is aimed at 1st year students and is composed of a set of 8 two-hour weekly group sessions. This study presents the results of the process evaluation of the Program implementation in different contexts. The sample consisted of 301 first year students from higher education institutions in Braga and Porto. Additionally, to the process evaluation performed orally by the different actors throughout the implementation, the Riscos & Desafios Program includes six process evaluation forms used in this study. The conditions of informed consent, anonymity and confidentiality were respected. Most of the students filled the Post-Program Questionnaire in the 8th session(s) and evaluated the different dimensions - General Opinion about the Riscos & Desafios Program, Facilitators and Program Organization - in a very positive way. Likewise, most of the students rated the Program as Very Good. These data corroborate the positive face-to-face assessment provided by participants throughout the Program's implementation. Additionally, the facilitators reported great satisfaction with the contents and activities of the program and with the high participation among the students. In sum, the process evaluation revealed clearly positive results, expressing the adequacy of the Program to the characteristics of the target group and reflecting the consistency of the theoretical-practical conceptualization formulated, as well as the methodologies and materials used. This evaluation reiterates the importance of investing on health promotion and prevention of addictive behaviors through structured programs aimed at university students who present themselves as a target population with identified needs in this area, corroborating the evaluation of efficacy of the Riscos & Desafios Program and supporting the continuity of its implementation.

### Poster 1.37

**Katarzyna Okulicz-Kozaryn, Megan Sambolt, Gail Chan and Stanisław Banaś**

#### ***Overview of the Good Behavior Game Feasibility Study and Implementation Lessons Learned in Poland***

Speaker: Katarzyna Okulicz-Kozaryn

This presentation will provide an overview of the adaptation process and pilot implementation of Good Behavior Game (GBG) in two Polish cities: Warsaw and Kraków. The Good Behavior Game is an evidence-based prevention program that targets antecedents of drug and alcohol misuse in primary school classrooms. Implementation of Good Behavior Game in the United States (US) has shown correlations with reductions in

drug, alcohol, and tobacco use, particularly for males who enter school with early indicators of aggressive and disruptive behavior. In Poland, we were interested in whether the results from the US research trials could be replicated in our setting and the current feasibility study is the first step towards a GBG Polish Randomized Control Trial (RCT). The presentation will begin with an overview of the recruitment of Polish GBG coaches, challenges associated with the translation of training materials, implementation supports provided by the American Institutes for Research, followed by lessons learned from the feasibility study. Finally, the presenters will discuss next steps for Good Behavior Game implementation and outcomes from the evaluation in Poland.

### Poster 1.38

**Carla Rocha, Elisardo Becoña and Gizela Cardoso**

#### ***Prevention of Alcohol Abuse and Depression in higher education context: the Riscos & Desafios Program***

Speaker: Carla Rocha

College students are a priority target in addictive behaviors and dependencies prevention interventions, particularly in the first year. The high prevalence of psychoactive substance use in this group and its consequences, mostly in terms of abusive alcohol consumption, associated with the fact that higher education can be a context of initiation to drug use, highlight the urgency of preventive intervention. Additionally, college students should be considered a risk group for the development of depression, particularly during the transition period of adjustment, as they are subject to various pressures. In fact, high prevalence rates of depression were found among university students in several countries. Depression constitutes a strong risk factor for drug use due to its high correlation with this behavior. Despite the magnitude of this problem and its consequences, there is little use of effective, structured and continuous prevention strategies in Portugal. The Risks & Challenges Program has been designed and validated in order to fill this gap. The present study examined the efficacy of this Program in relation to drug use and depression. The sample consisted of 228 first year students from the University of Minho, Braga, Portugal. The Riscos & Desafios Program is a co-curricular, comprehensive and multi-component competence enhancement based preventive intervention. The Program is aimed at students attending the 1st year of higher education and is composed of a set of 8 two-hour weekly sessions to be implemented in group format. In addition to collecting sociodemographic and psychoactive substance use data, the Portuguese version of Beck Depression Inventory (Vaz Serra & Pio Abreu, 1973) was used. This study included an experimental design, with experimental



and control group, with pre, post-test and follow-up (6 months) measurements. The results show significant preventive effects of the Risks & Challenges Program on alcohol use (i.e., beer and spirits) and depression. Since the relation between depressive symptoms and alcohol consumption and the relation between problematic use of alcohol and risk of suicide is reported in university students (Manza, 2009; Pedrelli et al., 2011; Santana and Negreiros, 2008; SAMHSA, 2002) the results achieved with the present study are of great importance.

### Poster 1.39

#### Christiane Stock and Lotte Vallentin-Holbech

##### *How important is quality of implementation for the effectiveness of the Danish alcohol prevention programme The GOOD Life?*

Speaker: Lotte Vallentin-Holbech

**Background:** This study assessed, if the preventive effect of the school-based social norms intervention The GOOD Life was moderated by the level of exposure to, satisfaction with and comprehension of the social norms messages.

**Methods:** In a cluster randomised controlled trial (38 schools, n=1355 pupils) the intervention and control groups of pupils completed an online survey, at baseline and at 3-months follow-up. The GOOD Life provided normative feedback through three different components (normative feedback in class, posters, web application on smartphones). At follow-up pupils in the intervention group (n=641) were asked about their satisfaction with and comprehension of the intervention. The effects were examined on three outcome measures, overestimation of peers' drinking, binge drinking (5 or more drinks on one occasion) and alcohol-related harms using multilevel logistic regression models.

**Results:** Increased exposure to, satisfaction with and comprehension of the social norms messages enhanced the intervention effects. For the outcome of norm perceptions higher intervention dose was associated with stronger and more significant intervention effects, while for the outcome alcohol-related harms this was only observed for higher intervention exposure and satisfaction. For binge drinking we found enhanced, but still insignificant intervention effects for those who received higher intervention dose.

**Conclusion:** This study found that implementation factors related to both level of exposure to and pupils' comprehension of intervention content had an impact on the effectiveness of The GOOD Life intervention. These findings suggest that implementers should take these factors into account in school-based alcohol prevention programmes.

### Poster 1.40

#### Ilaria Montagni, Alia Dehman, Zhuqing Yu, Maria José Martinez, Sharon Banner, Stephane Rimbert, Anne Marie Fontvieille, Charlie Foster and Sarah Hayez

##### *An effective technology-assisted program to prevent sleep problems among employees: findings from a multi-country workplace study*

Speaker: Ilaria Montagni

We describe a technology-assisted prevention program for sleep problems delivered in the workplace. Supported by the European Institute of Innovation and Technology (EIT, Horizon2020), the program was implemented in 2016-2017 in two sites in France and in six subsidiaries in three additional countries (China, Spain and United Kingdom) of a multinational pharmaceutical company. The program used a tablet application to measure among employees sleep duration, efficiency and quality through a 9-item questionnaire including scientifically validated scale items. During the first session of the program, 834 employees (60.1% females, n=501) completed in an isolated room the questionnaire and received, within the application, an instant personalised feedback with sleep recommendations following the Centers for Disease Control and Prevention guidelines, as well as advice to improve sleep quality and reduce sleepiness and insomnia. Immediately after the completion of the questionnaire, a health professional commented on the feedback received by each participant, customising and reinforcing the preventive messages of the program. Participants were sent by electronic mail a report of their results and attached recommendations. During the second session (follow-up) of the program, at least six months after, 291 employees (56.3% females, n=164) completed the same tablet-based questionnaire and assessed whether their sleep measures had changed or not. Using analysis of variance and adjacent logit models, we observed a significant increase of sleep duration during the week ( $p=0.025$ ) and during the week-end ( $p=0.046$ ). Furthermore, participants were about 2.8 times less likely to present severe sleep debt (more than 120 min), about 2.5 times less likely to report sleep problems ( $p<0.001$ ) and around 1.7 times less likely to report daytime sleepiness ( $p=0.026$ ) at follow-up. Women were two times more likely to suffer from sleep problems in both sessions ( $p=0.006$ ). Based on the results of this program, we argue the need to introduce similar technology-assisted prevention programs in the workplace as a good "real-world" setting for prevention interventions. For this, the cost and sustainability of the program are also provided. We especially underline the benefit of combining digital and human support to foster behaviour change.

## Poster 1.41

**Anwen Jones, Margiad Williams, Dawn Owen and Judy Hutchings**

***An Evaluation of the SKILLS (Support for Kids in Learning and Language Strategies) Online Programme for Teaching Assistants***

Speaker: Anwen Jones

Increasing numbers of children are receiving additional help from school support staff to address additional learning needs. Without this, many children have poor long-term outcomes in terms of academic attainment and lifelong challenges including mental health problems and unemployment. Teaching assistants (TA's) have wide-ranging experience but can sometimes lack skills needed to manage the social and emotional problems of some disruptive or withdrawn children. Interventions that teach parenting skills improve child outcomes. The positive behaviour management strategies taught in these programmes are also effective in improving nursery staff and teacher relationships with children, reducing negative child behaviour and improving children's engagement. SKILLS (Support for Kids in Learning and Language Strategies) is a five week web-based programme developed for school support staff that teaches core social learning theory principles designed to strengthen TA-pupil relationships through child-led play, increase praise and develop children's language skills. Participants were sixteen teaching assistants from six schools in North Wales, UK, who worked with children aged 4 – 7 years on a 1:1 basis. Objectives To establish whether the programme could successfully engage TAs, and to obtain feedback and suggestions for modification. Exploratory measures administered at baseline and immediately after the five week intervention examined possible changes in TA behaviour, and their sense of competence. Findings Participant responses deemed the programme beneficial to professional development, and demonstrated an overall high rate of positive feedback. Measures showed a significant increase in sense of competence and efficacy, and in the frequency of prompting language. Implications: Web-based programmes founded upon positive parenting principles can be effective in engaging TA's to increase their use of positive behaviour strategies; Technology can limit expense, making training more accessible to TA's who may not always be a priority with regards to professional development; Expanding the toolkit of TA's can increase sense of competence.

## Poster 1.42

**Robert Porzak, Krzysztof Ostaszewski, Jacek Pyżalski, Jakub Kołodziejczyk, Krzysztof Wojcieszek, Antoni Jeżowski, Wiesław Poleszak and Grzegorz Kata**

***Profilaktycy.pl – the automatized system of assessing prevention needs and recommending preventive activities in Polish schools***

Speaker: Robert Porzak

The project done as requested by Polish Ministry of Education leads to prepare online platform with the diagnostic and reporting system monitoring prevention programmes done in schools. The system will contain a set of questionnaires and psychometric tests developed and adapted in the project for the diagnosis and evaluation of preventive activities. The system will recommend activities scale and type of preventive desirable for students, parents and teachers integrating school society around the prevention aims on the base of communities of practice model. The system is going to be constructed after analysis of: 1. Currently existing and desirable economic, organizational and legal-administrative conditions of prevention. 2. Preventive needs, the effectiveness of achieving preventive goals and the quality of the prevention process targeted at children and adolescents in schools of all levels. 3. Socio-cultural determinants of preventive activity, in particular the role of participants in the school community and its environment: teachers, parents, school staff, representatives of local communities. The most important variables implemented in the system are divided on the group of independent (reasons) and dependent (consequences).

Variables treated as independent: 1. Symptoms of the constructive functioning of students, parents and teachers: the quality and quantity of pro-health attitudes and behaviours. 2. Students' dispositions for self-regulation, self-confidence, coherence and hope for success. 3. Environmental model of school prevention - the relation of preventive needs to the quantity and quality of preventive activities carried out in a given school. The analysed consequences (dependent variables) include the quality and quantity of attitudes and risky behaviours of students: 1. Smoking tobacco. 2. Drinking alcohol. 3. Use of illicit psychoactive substances. 4. Use of aggression and violence, cyberbullying.

## Poster 1.43

**Tim Slade, Cath Chapman, Nicola Newton, Louise Mewton, Louise Birrell, Steve Allsop, Leanne Hides, Nyanda McBride, Gavin Andrews, Brad Shaw, Nina Pocuca, Nina Te Pas and Maree Teesson**

### *Peer influence and peer selection effects and the emergence of alcohol use and depression during adolescence: Implications for prevention*

Speaker: Tim Slade

**Background:** Friends are influential in the health behaviour choices of adolescents. Adolescents whose peers drink alcohol report higher levels of alcohol consumption themselves. Yet how friendship and alcohol use behaviours co-evolve is less well understood. A separate but related body of research is emerging to show that social networks also act as powerful conduits for the spread of emotional problems such as depression. However, to date there is little research on the interplay between alcohol use and depression within the context of friendship networks.

**Aim:** The current study examines selection and influence explanations for the spread of alcohol use and depression through Australian adolescent friendship networks.

**Methods:** As part of a larger ongoing combined substance use, anxiety and depression prevention trial, information was collected on friendship networks from adolescents (mean age 13.1 at baseline) in 22 schools in Australia. We also collected information on perceptions of peer alcohol use, actual alcohol use, binge drinking and symptoms of depression. Stochastic actor-based modelling methods will be used to assess the strength of selection and influence processes in the evolution of alcohol use and depression over time.

**Results:** While friendship networks have been mapped at each wave of data collection, calculation of social network indices as well as longitudinal modelling has yet to be completed.

**Conclusions:** Uncovering the mechanisms by which the onset of drinking behaviours as well as the experience of depressive symptoms diffuse through peer networks holds great promise for understanding the etiology/causality of peer impacts on alcohol use and depression and identifying individuals strategically positioned in a network, so-called "key players". These key players could form the basis of targeted prevention programs that capitalise on the social influence model to alter alcohol use attitudes/behaviours or emotional regulation strategies at a population level.

## Poster 1.44

**Michael Hecht, Frank McKee, Anne Ray, Michelle Miller-Day, Suellen Hopfer and Rhonda Belue**

### *Using E-Health to Promote HPV Vaccination: The Women's Stories Intervention for Planned Parenthood*

Speaker: Rhonda Belue

HPV is a significant public health problem whose prevention and treatment, like other STDs, is confounded by issues of morality and challenges associated with treatment compliance. While effective prevention is available through a vaccine, vaccine uptake is nowhere near universal. Like many medical advances, finding and implementing strategies for taking practices to scale is a challenge further complicated by vaccine resistance within the U.S. This presentation reports on efforts, successful to date, to overcome these obstacles through a narrative, e-health intervention call Women's Stories.

Women Stories began as a narrative intervention for college-age women delivered via videos displayed on laptops. Narratives are an ideal communication strategy for reaching resistant and/or uninformed populations, as is the case with the HPV vaccine and the technology-based delivery facilitated this process. The intervention significantly increased vaccination during a randomized clinical trial, almost doubling the uptake, resulting in recognition by the U.S. National Cancer Institute (NCI) as a "research tested intervention program".

Even with these outcomes and this recognition, research tested interventions such as Women's Stories are seldom ready for wide spread use because of individual and institutional barriers. Our project overcame individual barriers using technology to deliver a narrative intervention, Women's Stories, to people seeking medical care in a clinic setting where they are more receptive to health information. Institutional barriers and the challenge of scaling up were overcome through partnering with a community-based health care system, Planned Parenthood, one of the leading providers of women's health care. In contrast to the commonly used "build it and they will come model", we start with the end user and integrating the intervention into existing systems. Technology played a role in accomplishing both goals. The presentation describes this innovative intervention and the challenges of integrating e-health technology for HPV vaccine promotion into the clinic setting.



## Poster 1.45

**Samuel Azubuike, Richard McNally and Louise Hayes**

***Household, Moderate physical activity and the risk of breast cancer among Nigerian women.***

Speaker: Samuel Azubuike

**Background:** Breast cancer incidence in Nigeria has risen by >120% since 2010. The mortality rate (25.9 /100 000/year) ranks highest in Africa. Studies have suggested that women who engage in household and moderate activities had lower risk of breast cancer than those who do not engage in such activities. However the roles of household and moderate physical activity (PA) in breast cancer risk have not been widely studied in Africa. With increasing access to education and improving socioeconomic status of many women in Nigeria, the household and other daily routines are expected to change. This has implications for their level of physical activity. There is a need to investigate if there is an association between household as well as moderate PA and breast cancer risk in Nigeria.

**Methodology:** The study was a multisite hospital based case-control design involving 379 histologically confirmed breast cancer cases and 403 controls. The participants aged  $\geq 20$  years were interviewed in-person between October 2016 and May 2017 using a pretested questionnaire. Cases were selected from oncology wards and controls from ophthalmology wards. Self-reported household and moderate PA were summarised as both hours per week and metabolic equivalents (MET) hours per week (met-hr/wk). Data were analysed using multivariable logistic regression, adjusting for known confounders. SPSS version 23 was used for all analyses.

**Findings:** The odd of having breast cancer(based on MET-hr/wk) was 41% less among women in the upper tertile of household PA than those in the lowest tertile (95% CI: 0.38,0.92). This was stronger among younger (OR: 0.44; 95% CI: 0.23, 0.82), premenopausal (OR: 0.40, 95% CI: 0.21, 0.75) and lean women (OR: 32; 95% CI: 0.14, 0.75). Increasing level of moderate PA was also associated with reduced breast cancer risk ( $P=0.04$ ).

**Conclusions:** The study suggested that both household and moderate physical activities were inversely associated with breast cancer risk among Nigerian women. Household chores and other routine moderate activities could provide opportunities for breast cancer prevention.

## Poster 1.46

**Håkan Källmen, Anne H Berman and Peter Wennberg**

***The Alcohol Use Disorders Identification Test (AUDIT) in relation to severity of Alcohol Use Disorders according to the DSM 5.***

Speaker: Håkan Källmen

**Introduction:** The Alcohol Use Disorders Identification Test (AUDIT) is a well-known and often used research instrument consisting of 10 items on alcohol habits. It has shown high internal and test-retest reliability, and factor analyses on general population data have shown a two-factor solution, consumption (item 1 – 3) and alcohol-related problems (Items 4-10). It has been shown that AUDIT has good criterion validity in relation to alcohol abuse and dependence according to the DSM IV. However, the introduction of DSM-5 implied a change in the diagnosis system. Instead of the diagnoses abuse and dependence the term alcohol use disorder (AUD) is employed and stratified in three levels - mild, moderate and severe. It is warranted to validate AUDIT in relation to the new diagnostic severity criteria.

**Method:** A postal questionnaire was sent to a random sample of 1500 persons drawn from the Swedish population, half men, aged between 17 and 80 having a residence address in Sweden. The questionnaire contained AUDIT and 13 items from a DSM-5 screen. Two reminders were sent to non-responders.

**Statistical analyses:** The percentage of risk-consumers was calculated by a simple frequency count and comparison between groups and age intervals and interaction between them were made by a two-way analysis of variance. Internal reliability was operationalized as Cronbach's alpha and a confirmatory factor analysis tested the hypotheses of suggested factor structures among data. Additionally, an exploratory principal axis factoring evaluated the co-variance structure among data. To evaluate the criterion validity of AUDIT against severity criteria in DSM-5 we performed a Receiver Operating Curve (ROC) analysis. All calculations were carried out with SPSS 24.0.

**Clinical implications:** This study provides an estimate of the prevalence of Alcohol Use Disorders (AUD) in the general Swedish population and also AUDIT cut-off levels for degrees of severity of AUD according to DSM-5 criteria. This information will be useful for future studies where AUDIT can be used to estimate the proportion and severity of AUD.

## Poster 1.47

### Olga Ubartiene and Gene Surkiene

#### *Health Literacy of 11-12 Grades Schoolchildren, their Parents and Teachers*

Speaker: Olga Ubartiene

The aim of the study: To assess health literacy level and influencing factors of 11-12 grades schoolchildren, their parents and teachers. Material and Methods. Schoolchildren, their parents and teachers were questioned using anonymous survey method. The HLS-EU-Q47 comprehensive health literacy questionnaire of 47 items, translated into Lithuanian language, has been used to assess health literacy level. The respondents were also asked about socio-demographic characteristics and other factors, which can be associated with health literacy. The statistical analysis were performed using the statistical data processing program SPSS, Microsoft Excel and WinPepi. The reliability coefficient of the survey was  $p < 0.05$ . Results. The data showed that more than half of schoolchildren manifested sufficient and excellent level of health literacy. The health literacy was lower for boys than for girls, and lower for 11th graders than for 12th graders. The leading motivation for seeking health information was fear of pain. Almost all students use internet to seek online health support. Almost half of children assess their health status good. Girls more often than boys assess their health status bad. The most common health problems at school are headache and stomach ache. Approximately one third of the parents manifested a problematic or inadequate health literacy level. Smoking, less well-educated and unemployed respondents with low health literacy reported worse health status self-assessment. Limited health literacy is associated with poorer health outcomes. The results showed that a majority of the teachers belonged to the level of health literacy of „sufficient” and „excellent”. Older teachers assess their health status worse than the younger. Conclusions. More than half of schoolchildren manifested sufficient and excellent level of health literacy. Limited health literacy is associated with poorer health outcomes and worse health status self-assessment. In general, health literacy level was significantly associated with level of education and health behavior.

## Poster 1.48

### Adanela Musaraj and Kamila Olchowicz

#### *Micronutrient deficiency prevention and the 'crime – counterfeit nutraceuticals' combination in Balkan countries*

Speaker: Adanela Musaraj

The micronutrient deficiencies caused largely by a dietary deficiency of vitamins and mineral, lies upon their

magnitude and their health consequences, especially in pregnant women and young children, as they affect fetal and child growth, cognitive development and resistance to infection. Overcoming micronutrient malnutrition is therefore a precondition for ensuring rapid and appropriate national development. This was the consensus reached at the FAO/WHO International Conference on Nutrition (ICN) in December 1992, where 159 countries endorsed the World Declaration on Nutrition, pledging “to make all efforts to eliminate...iodine and vitamin A deficiencies” and “to reduce substantially...other important micronutrient deficiencies, including iron.” And to do so, guidelines and strategies were published to assist countries in the design and implementation of appropriate food fortification programmes as part of a comprehensive food-based strategy for combating micronutrient deficiencies. Fortification of food can make an important contribution to the reduction of micronutrient malnutrition when and where existing food supplies and limited access fail to provide adequate levels of certain nutrients in the diet. To ensure that the target population will benefit from a food fortification programme, an appropriate food vehicle must be selected that is widely consumed throughout the year by a large portion of the population at risk of a particular deficiency. But instead of having new positive outputs from these strategies and guidelines, the food supply fraud, in a subcategory of Nutraceuticals, flourished in all the trades of the population with micronutrient deficiency. While most food fraud events do not have an immediate hazard, the nutraceuticals are vulnerable. The issue involves intelligent human adversaries, so the response is uniquely complex regarding mitigation and prevention

## Poster 1.49

### Violetta Andriolo, Stefan Dietrich, Sven Knüppel, Wolfgang Bernigau and Heiner Boeing

#### *Traditional risk factors for essential hypertension: analysis of their specific combination in the EPIC Potsdam cohort*

Speaker: Violetta Andriolo

Appropriate interventions targeting specific modifiable lifestyle factors (MLFs) might have a remarkable impact on the prevention of essential hypertension. This requires a comprehensive view of population-specific data on the distribution of MLFs and their impact on hypertension risk. Objective: To determine how six MLFs (general and abdominal adiposity, alcohol consumption, smoking, low adherence to DASH diet, physical inactivity) at risk for hypertension are distributed in different combinations of occurrence and how these affect the risk. Design and Setting: Prospective study cohort, from the population-based European Prospective Investigation into Cancer and Nutrition (EPIC)–Potsdam Study. Participants: The

complete study population included 27,548 participants aged 35-65. 11,923 participants (8,107 women and 3,816 men) free from hypertension and chronic diseases were eligible for analysis. Of them 1,635 developed hypertension during a median follow-up of 10.3 years. Main Outcome and Measures: Hazard Ratios (HRs) and Population Attributable Risks (PARs%) of the six MLFs for incident hypertension had been calculated. Mutually exclusive combinations, clustering and interactions of MLFs were then investigated with details of sex-specific analyses. Results: General adiposity was the only MLF sufficient to increase per se the risk for hypertension (HR=1.86, PAR% 3.36) among participants having only 1 MLF. Among participants with risk factors > 1, the highest risk was found for the combination “general, abdominal adiposity and smoking” (HR=7.18), and highest PAR for “general adiposity and smoking” (PAR% 8.16). These combinations showed also higher prevalence than expected. Conclusions: In this German adult cohort general adiposity played a major role in enhancing the risk for essential hypertension, combined together with smoking and physical inactivity. MLFs showed remarkably tendency to occur in specific patterns rather than by chance, suggesting the advantages to promote a holistic approach through a multifactorial preventive strategy which targets more than a factor at a time.

## Poster 1.50

**Katrina Champion, Maree Teesson, Nicola Newton, Frances Kay-Lambkin, Cath Chapman, Louise Thornton, Tim Slade, Katherine Mills, Matthew Sunderland, Steve Allsop, Leanne Hides, Nyanda McBride, Judith Bauer, Belinda Parmenter, Bonnie Spring and David Lubans**

***An eHealth multiple behaviour change intervention to prevent chronic disease risk among adolescents: Development and Study Protocol of the Health4Life Initiative***

Speaker: Katrina Champion

Introduction: Smoking, alcohol use, poor diet, and physical inactivity are key determinants of chronic disease. More recently, screen time and unhealthy sleep have been associated with poor health. Alarming, these risk factors (the “Big 6”) are highly prevalent among 12-17 year-old Australians, commonly co-occur, and become entrenched by adulthood. Therefore, early and effective prevention is critical to promote current well being and reduce chronic disease risk.

Methods: This study aims to develop and evaluate an eHealth multiple behaviour change intervention

to concurrently target the Big 6 among adolescents. The intervention consists of: 1) a universal, online school-based program for all students, 2) a smartphone application to track behaviours, and 3) a booster app, delivered to students who remain ‘at-risk’ as they progress throughout school. A cluster randomised controlled trial will be run in 80 schools (8000 12-13year-olds) across Australia.

Development of the Health4Life interventions, and preparation for the RCT, is in progress. Scoping activities to inform intervention development include a survey among youth to understand beliefs and knowledge about health, engagement with the Big 6, and use of smartphones. Secondary data analysis (n=853), via latent class analysis (LCA), was conducted to understand the clustering of the Big 6 among youth.

Results: The LCA indicated that the Big 6 were prevalent and clustered in 18-year olds, and associated with mental health symptoms, reinforcing the importance of intervention in early adolescence. This presentation will also report results from the online survey, and provide an overview of the interventions and RCT.

Conclusion: This will be the first trial of an eHealth multiple health behaviour intervention to concurrently target the Big 6. Addressing risk behaviours together during adolescence will not only improve the short-term physical and mental health of youth, but also carries enormous potential to enhance their capacity to lead healthy adult lives.

## Poster 1.51

**Tomasz Białas**

***System of new psychoactive substances (NPS) intoxications control in Poland***

The use of NPS has been a problem in Poland since 2010. Data on intoxications (deaths, non-fatal and suspicions) have been collected since the problem appeared, however, in 2013 a data collection system in today's shape was formed, which on the one hand makes it possible to compare data from all over country on the other hand, it allows you to react quickly to the sudden increase in poisoning in a given area in a short time, like in July 2015. Despite the fact that, apart from post-mortem toxicology examinations, even the biological material of acute intoxicated patients are hardly ever examined, there is the need to take into account suspected poisoning based on typical symptoms and other presumptive evidences, especially that detection of NPSs is not possible with simple tests, but only with the use of expensive and time-consuming, advanced laboratory tests. Epidemiological data on NPS intoxications from the whole country, are collected by the Chief Sanitary Inspectorate (Polish public health office) through state regional sanitary inspectorates at the regional level, who receive data from



medical entities through sanitary inspectors of local level. Information on poisonings, suspicions of poisoning and deaths is collected in a two-week cycle. The collected data is transferred to the Poison Control Center in Warsaw for final verification. The data is collected via a standardized notification form, and their scope includes the following variables, especially date of medical intervention, age and gender as well as the initial of the patient, place of event, place of medical aid provided, type of assistance (out-patient, emergency care, hospitalization), the name of NPS/product. The collected data make it possible to prepare indicators (e.g. medical interventions into 100,000 inhabitants). The database gives the opportunity to present them in time series, by region, gender, age group. And learn about the trends. For example, since 2013, the percentage of intoxicated under 18 years has been steadily dropping: from 43% in 2013 to 20.5% in 2017. In 2017, there were more than 4,300 cases noticed, and since 2013, there have been almost 20,000 cases. The database is also used to prepare prevention programs.

## Poster 1.52

**Carmen Orte, Lluís Ballester, Joan Amer and Lluç Nevot**

### *Adherence to the Family Competence Program for Adolescents in Spain*

Speaker: Carmen Orte

Introduction: Improving adherence of drug prevention programs is an important concern for both researchers and implementers. There are different reasons for the lack of adherence of participants to mid or long duration programs. Individual factors related with the adherence are the low socio-economic status, low educational level, scarce parental skills, depression or parental stress. Quality of implementation also impacts upon adherence. The role of facilitators is also critical. Transport access, nursery, incentives and an adapted schedule are factors associated to a larger participation. Connecting family prevention programs with schools has demonstrated its effectiveness in several programs. Overall, programs promote adherence if they are stimulating and they respond to subjective needs of participants. Here we present the adherence to 11 applications of the Family Competence Program (FCP) (Spanish version of the Strengthening Families Program 12-16), an evidence-based selective prevention program.

Method: Regarding participants, 84 families ended the program (89 parents and 83 adolescents) (Experimental Group). Control group is of 23 families (23 parents and 23 adolescents). Intervention includes 11 applications of 14 sessions in five cities of Spain. About analysis, T test, Chi-square, Cochran-Mantel-Haenszel are undertaken.

Results: Family retention is 85.7% in the experimental

group and 92.0% in the control group. Retention of parents in the experimental group is 79.5%, and 92% in the control group. Dropout is principally a male issue (86.96% of total parental dropout). Retention is 84,7% in adolescents of the experimental group and 92% in adolescents in control group. Male adolescent dropout represents 60% of overall adolescent dropout. Main cause of dropout is work changes of participants. It is also observed a statistical significant relationship ( $p < 0.05$ ) (Chi Square Pearson analysis) with schools where implementations take place.

Conclusions: Results demonstrate high retention. Different adherence levels occur according to type of participant (parents/adolescents) and by gender of parents (lower among fathers). High levels of adherence are associated with the organization quality of applications (schools, NGOs and social support services), with skills of facilitators (preparation and experience), and with work and social stability of participants.

## Poster 1.53

**Brianna A Lienemann, Shyanika Rose, Jennifer Unger, Helen Meissner, M. Justin Byron, Lourdes Baezconde-Garbanati, Li-Ling Huang and Tess Boley Cruz**

### *Tobacco Advertisement Liking, Vulnerability Factors, and Tobacco Use among Young Adults*

Speaker: Brianna A Lienemann

Introduction: Young adulthood (ages 18-24) is a crucial period in the development of long-term tobacco use patterns. Tobacco advertising and promotion lead to the initiation and continuation of smoking among young adults. We examined whether vulnerability factors moderated the association between tobacco advertisement liking and tobacco use in the United States.

Methods: Analyses were conducted among 9,109 U.S. young adults in the nationally-representative Population Assessment of Tobacco and Health (PATH) Study Wave 1 (2013-14). Participants viewed 20 randomly selected sets of tobacco advertisements (five each for cigarettes, e-cigarettes, cigars, and smokeless tobacco) and indicated whether they liked each ad. The outcome variables were past 30-day cigarette, e-cigarette, cigar, and smokeless tobacco use. Covariates included tobacco advertisement liking, age, sex, race/ethnicity, sexual orientation, education, poverty level, military service, and externalizing and internalizing mental health symptoms.

Results: Liking tobacco advertisements was associated with tobacco use, and this association was particularly strong among those with lower educational attainment (cigarettes, e-cigarettes, cigars), living below the poverty

level (e-cigarettes, smokeless tobacco), and military service (smokeless tobacco).

Conclusions: The association between tobacco advertisement liking and tobacco use was stronger among young adults with lower educational attainment, living below the poverty level, and military service. Policies that restrict advertising exposure and promote counter-marketing messages in this population could reduce their risk.

## Poster 1.54

**Alexandra Morales, Silvia Melero, Iván Fernández-Martínez, José Pedro Espada and Mireia Orgilés**

***Psychometric Properties of the Spanish version of the Child Anxiety Life Interference Scale for Parents (CALIS-P)***

Speaker: Alexandra Morales

Anxiety disorders have a negative impact on the children's life, including emotional, social, family and educational areas. Evaluation of childhood anxiety has focused mainly on symptomatology, and measures of anxiety life interference in children are scarce. Furthermore, collecting information about interference of anxiety in the children's and their family daily functioning through multiple informants is recommended for a better diagnostic and intervention. The Child Anxiety Life Interference Scale – parent version analyses life interference and impairment related to children's anxiety both in their own daily functioning and in their parents' life. This study aimed to examine the psychometric properties of the Spanish version of CALIS-P in children aged 6-8 years old. Participants were 181 primary school children (45.9% girls), and data was collected through their parents, who answered a survey on their children's emotional status. The factorial structure, reliability, convergent and divergent validity of the Spanish CALIS-P were examined. Confirmatory factor analysis supported the good fit of the original three-factor model, including "Outside Home Interference", "At Home Interference" and "Parent Life Interference". High internal consistency of the Spanish version of CALIS-P was found for the total score ( $\alpha = .91$ ) and subscales ( $\alpha = .75 - .87$ ). Temporal stability after 4 weeks was also satisfactory ( $ICC > .65$ ). Convergent validity was proven by positively correlations among CALIS-P and measures of anxiety symptoms (SCAS-P, SDQ-P), and divergent validity was supported with negative correlations with the Prosocial behavior scale of SDQ-P. The results provide evidence of the instrument utility both in research field and in the clinical practice.

## Poster 1.55

**Alexandra Morales, Iván Fernández-Martínez, Miriam Rodríguez, José Pedro Espada and Mireia Orgilés**

***Short-term effects of a transdiagnostic prevention program in reducing emotional symptoms in a non-clinical sample of Spanish-speaking children***

Speaker: Alexandra Morales

Emotional disorders, such as both anxiety and depression, are common comorbid conditions among Spanish children. Super Skills for Life (SSL) is an 8-session transdiagnostic prevention program focused on comorbid anxiety and depression symptoms, which effectiveness was proven in English children. This study aimed to examine the effectiveness of SSL program for reducing comorbid symptoms of anxiety and depression in a non-clinical sample of Spanish children. This study enrolled nine schools located in the province of Alicante, Spain. A total of 2,700 parents of children aged 8-12 were invited to participate by responding a screening survey. Of them, 181 participants' parent responded and 125 children met the criteria to participate (anxiety symptoms) and responded the pretest survey. Finally, 119 children aged 8-12 years, 51 females (42.9%) received the intervention. Children completed individually measures of anxiety and depression, interference of anxiety with their lives, and other emotional and behavioral difficulties before and after the intervention. Generalized estimation equations and adjusted odds ratios were calculated in order to assess the effectiveness of the intervention. Immediately after the intervention, a significant decrease in anxiety and depression symptoms, as well as in the other analyzed outcomes, was observed. Compared to the baseline assessment, children were less likely to present symptoms of generalized anxiety, separation anxiety, depression, dysphoria, negative self-esteem, anxiety life Interference, emotional symptoms, and general difficulties (i.e., including emotional and behavioral difficulties) in the posttest. Our findings provide initial support for the effectiveness of SSL program for reducing comorbid emotional problems in the short-term in Spanish-speaking children. This study suggests the suitability of the program as a prevention strategy for non-clinical Spanish population with anxiety and depression symptoms. Long-term effects of SSL in Spanish children need to be explored.

## Poster 1.56

Nicola Newton, Katrina Champion, Chloe Conroy, Tim Slade, Louise Thornton, Ina Koning, Lexine Stapinski, Maree Teesson and Cath Chapman

*Climate Schools Plus (CSP): Implementing & evaluating an integrated online intervention for students and parents to prevent alcohol and cannabis harms among adolescents*

Speaker: Katrina Champion

Early initiation of substance use significantly increases risk of developing substance dependence and mental disorders later in life and parents play a key role in preventing substance use among their adolescents. The current study aims to address this by evaluating the effectiveness of the first integrated, online substance use prevention program for students and parents – Climate Schools Plus (CSP). The CSP study builds on the success of the Climate Schools program, with the addition of a newly developed parenting component, based on a successful Dutch program [1] and informed by consultation with parents, teachers and researchers.

A cluster RCT is being conducted with Year 8 students and their parents from twelve schools between 2018-2020, in which schools are randomly allocated to receive either the CSP program or their usual health education. Measures include substance use, parental self-efficacy, communication quality etc. and participants will also be asked to provide feedback on the intervention content (e.g., how acceptable, appropriate and enjoyable did they find the program).

This presentation will describe the results of beta-testing, conducted with over 200 parents, who reported they were not confident they could stop their child becoming drunk and would be interested in accessing an interactive, self-paced prevention program from a reputable institution. The presentation will also outline the feedback obtained from participant evaluations of the year 8 intervention, which are currently underway.

If proven to be effective, this comprehensive program could be implemented widely, as part of a national strategy to significantly reduce the burden of disease, social costs, and disability associated with early substance use in adolescents. Furthermore, the CSP program has the potential to bridge the gap between evidence-based research and parent-practices by allowing parents direct access to research output via the convenience of an online platform.

## Parallel Session 1 (14.00–15.30)

### 1.1 Schools, mental health and wellbeing

Maria Rosaria Galanti, Melody Almroth, Filip Andersson, Krisztina Laszló and Catharina Lavebratt

*Beyond individual achievements: is there a link between school social and pedagogic climate and adolescents' mental health?*

Speaker: Maria Rosaria Galanti

Introduction: The associations of school achievement (academic grades); truancy; and other indicators of school affection and school social integration with mental health of young people are well known. However, whether a school's overall climate and pedagogic environment influence adolescent mental health through these or other mediation mechanisms is not known. These questions are highly relevant in the European context of high labour market competition, uncertainty about school status and mission, and increasing rates of mental ill health among youths. We sought to assess this relationship in a longitudinal study of adolescents attending the last three years of the Swedish compulsory school.

Methods: A longitudinal study was initiated in 2013 comprising 3959 students from 101 schools in Central Sweden, with 3-year follow-up (the Kupol Study [www.kupolstudien.se](http://www.kupolstudien.se)). Participants were in average 13 years old at inception. Information about mental health was provided by the students themselves and by their parents through questionnaire-based annual surveys. School climate was investigated through aggregate measures provided by students exiting the last school grade and by the teaching personnel answering the PESOC, a Swedish scale developed to capture pedagogic and social dimensions of school environment. Lastly, a subsample of the cohort donated saliva samples for the analysis of DNA epigenetic changes.

Results: Available results from studies based on this cohort's data will be presented and discussed. Among these: 1. Children's and their parents' high academic expectations and aspirations seem to predict rather good than poor mental health 2. Favourable school pedagogic environment as rated by teachers (but not as rated by students) predicts symptoms of mental ill health among students 3. Favourable school pedagogic environment is associated with lower frequency of bullying and of truancy 4. There is a cross sectional association between epigenetic changes and self-reported symptoms of



depression and anxiety, as well as between negative school experiences and epigenetic changes.

**Conclusions:** School climate is a multi-dimensional construct that can be linked to adolescent mental health through multiple pathways. Mental health, learning achievements and academic goals should be addressed in school-based prevention policies and program as part of a unique developmental trajectory.

**Lene-Mari Potulski Rasmussen, Joshua Patras, Frode Adolfsen, Monica Martinussen, Kristin Martinsen, Solveig Holen, Anne Mari Sund, Marit Løtveit Pedersen, Mona Løvås and Simon-Peter Neumer**

***Implementation of a new indicated prevention program for school children with symptoms of anxiety and depression***

**Speaker:** Lene-Mari Potulski Rasmussen

**Introduction:** Implementation of interventions into routine primary care settings is challenging. Limited resources and a lack of support from implementing organizations and program developers present challenges to transition of interventions from adoption to full sustainability. Children's mental health service settings are often multilayered and complex. Diverse policies and governmental regulations overlay service settings in which individuals with diverse attitudes and experiences work. Research has shown that interventions including implementation support, produce better outcomes than those that do not. The aim of this study was to investigate the implementation quality of an ongoing effectiveness evaluation of the EMOTION intervention, an indicated CBT prevention program for children with symptoms of emotional problems.

**Methods:** Trained health care and childcare professionals from different municipal services (e.g., school health care services) delivered EMOTION in schools. The professionals (N = 68) filled out a survey before and after running groups (96 % women, mean age = 39.6, SD = 9.7). The pre-group survey contained questions regarding professional background and experience, and organizational factors (e.g., leadership, work culture and autonomy). The post-group survey measured the group leaders' satisfaction, together with their intention to continue running EMOTION groups. The children (N = 274) were assessed before, midway, and after completion of the intervention groups, using the Multidimensional Anxiety Scale for Children for Children (MASC-C), and the Mood and Feelings Questionnaire, short version (SMFQ).

**Results:** A model of the relationship between group leader characteristics, organizational characteristics, and treatment outcomes within the intervention group, will be tested using multilevel, SEM analyses.

**Discussion:** The discussion will focus on how group leaders and their organizations affect the children's outcome after completion of the intervention through the quality of delivery. Improving the implementation processes by identifying relevant factors is an important contribution to successful implementation of indicated preventive interventions in children's mental health services.

## **Szymon Wójcik**

***How to reduce cyberbullying at schools? Construction and evaluation of new electronic aggression prevention programme aimed at adolescents***

The presentation aims to introduce a new prevention program called IMPACT (Polish abbreviation from Interdisciplinary Model of Preventing Aggression and Cyberbullying) developed by a consortium composed of NGOs: the Praesterno Foundation, Empowering Children Foundation and academic institutions: the Faculty of Psychology of the Warsaw University, Warsaw University of Technology and Nofer Institute of Occupational Medicine in Lodz as part of a project co-financed by the Polish National Center for Research and Development (Social Innovations II program). The program integrates elements of pedagogical and psychological intervention as well as aspects of internet security skills. Construction of the program was preceded with psychological diagnosis of peer electronic aggression phenomenon and identification of factors that could serve as inhibitors of cyberbullying (focusing on safe-control and empathy-activation). Developed on the basis of interdisciplinary scientific research and educational experience of NGOs taking part in the project, the innovative 10-hour program includes detailed lessons plans together with auxiliary multimedia materials. From November 2017 to June 2018 pilot implementation was carried out in 30 schools from different regions of Poland. The implementation of the program in these schools was carefully monitored and evaluated, including the measurement of the preventive impact of the program. The results of this evaluation will be presented along with the conclusions for the practical implementation of the program to schools and possibilities of trans-cultural adaptation.

## **Doris Malischnig**

***Time for Change - An Innovative Approach to Create a Digital Offer***

Recent data (Carli et al., 2014, Wagner et al., 2017) indicate that a significant proportion of young people are temporarily experiencing an increased risk behavior regarding the consumption of alcohol, nicotine, illicit drugs and/or games of chance. At the same time, digital media play a major role in the daily lives of young people and young adults in Austria. A recent youth trend study

identifies, that 96.7 % of 14- to 19-year-olds in Austria own a smartphone (Institut für Jugendkulturforschung, 2014). For this reason, it seemed obvious to create a digital offer to increase risk awareness and harm reduction for this vulnerable group. The goal for this innovative E-Mental Health project is to empower young people to develop skills to manage risks associated with the use of legal/illegal substances and/or games of chance through a low-threshold web based intervention. Therefore, the Institute for Addiction Prevention Vienna, a subsidiary of the Office of Addiction and Drug Policy of Vienna, developed digital prototypes using the "Design Thinking Approach" (Lewrick et al., 2017). In her talk, Dr. Malischnig will present the process that has been dealt. She will show which jobs are to be done to develop a project with the help of the "Design Thinking Approach". The task starts with understanding and analyzing the real life situation of the target group and concludes with the creation of plenty of innovative ideas for digital prototypes. In her project the ideas for designs were subsequently assessed by representatives of the target group to be sure that the results effectively meet their needs. It is shown that the selected method is suitable to develop innovative health promotion, prevention, treatment or relapse prevention programs.

**Chris Bonell, Elizabeth Allen, Emily Warren, Jennifer McGowan, Leo Bevilacqua, Farah Jamal, Rosa Legood, Meg Wiggins, Charles Opondo, Anne Mathiot, Jo Sturgess and Adam Fletcher**

*Initiating change in the school environment to reduce bullying and aggression: a cluster randomised controlled trial of the Learning Together (LT) intervention in English secondary schools*

Speaker: Emily Warren

Background: Bullying and aggression among young people are some of the most important mental health problems. The Learning Together intervention involved students in efforts to modify their school social environment using restorative approaches. We hypothesised that in intervention schools there would be lower rates of self-reported bullying, perpetration of aggression, and improved student secondary outcomes at follow-up compared with controls.

Methods Design: Cluster RCT with integral economic and process evaluations. Setting: 40 secondary schools across southeast England. Assignment: Schools were randomly allocated to implement LT over 3 years or continue with standard practice (controls). Intervention: Schools were given a) a social/emotional skills curriculum, b) staff training in restorative approaches, c) an external facilitator to convene an Action Group to revise policies and oversee

delivery, and d) data on local student needs to inform decisions. Primary outcomes: Self-reported experience of bullying victimization (Gatehouse Bullying Scale; GBS) and perpetration of aggression (Edinburgh Study of Youth Transitions and Crime (ESYTC) school misbehaviour subscale) measured at 36 months. Analysis: Intention-to-treat analysis using longitudinal mixed-effects models.

Registration: ISRCTN10751359

Findings: 6667 students participated in baselines (93.6%) and 5960 (83.3%) at final follow-up. No schools withdrew from the study. Primary outcome: GBS scores were significantly lower amongst intervention schools than controls at 36 months (adj mean difference [95% CI]; -0.03 [-0.06, 0.00]). There was no evidence of a significant difference in ESYTC scores. Secondary outcomes: Students in intervention schools reported higher quality of life (1.44 [0.07, 2.17]) and psychological wellbeing scores (0.33 [0.00, 0.66]); lower psychological total difficulties (SDQ) score (-0.54 [-0.83, -0.25]); and lower odds of having smoked (OR [95% CI]; 0.58 [0.43, 0.80]; drunk alcohol (0.72 [0.56, 0.92]); been offered/tried illicit drugs (0.51 [0.36, 0.73]); and being in contact with police in the past 12 months (0.74 [0.56, 0.97]).

Interpretation: LT was effective across a broad range of key public health targets for adolescents. Universal school-environment interventions are a highly promising approach to promoting health and wellbeing in adolescence.

## 1.2 Illicit substances

**Giovanna Campello, Asma Fakhri, Heeyoung Park, Vladimir Poznyak, Dzmitry Krupchanka, Valentina Baltag and Gilberto Gerra**

*International Standards on Drug Use Prevention, UNODC/WHO Second Updated Edition*

Speaker: Giovanna Campello

In March 2018, UNODC and WHO launched the International Standards on Drug Use Prevention, Second Updated Edition. These Standards summarize the globally available scientific evidence, describing interventions and policies found to be effective in preventing substance use, outlining the characteristics linked to positive, no or negative outcomes. Concurrently, they offer guidance on the features of effective national drug prevention systems. The Standards aim foremost to assist decision makers worldwide to improve their national prevention systems by implementing evidence-based prevention strategies. The first edition of the Standards were developed based on a review of literature published prior to 2013. At that time, the identified good quality literature originated

almost entirely from western high income countries. Furthermore, the evidence was scarce with regard many areas of prevention that have evolved since, such as online programs or programs targeting older adolescent or vulnerable populations. For the Second Updated Edition, UNODC and WHO have undertaken an update of the Standards to take stock on the advances made in prevention research by conducting a review of systematic reviews published between 2013 and 2018, also capturing the research on the emerging areas of prevention. The methodology of the review will be presented including reflections on using the ROBIS quality assessment tool and providing a summary of key findings and observations as well as identifying emerging areas for prevention, including the use of technologies, that merit further research in order for them to be considered at the level of evidence. Furthermore, the plans for disseminating the Standards using communication technologies as well as potential ways of using them as a vehicle for supporting better quality and coverage of prevention worldwide will be discussed.

## Michael Schaub

### ***Web-based self-help vs. chat-counselling vs. adherence-focused guidance for cannabis misusers***

**Background:** In European countries, cannabis is the most commonly used illicit drug. Offering a web-based self-help tool could potentially reach users who otherwise would not seek traditional help. In a previous study, we demonstrated that chat-counselling in addition to Web-based self-help increases adherence and effectiveness, but was rarely used. Thus, the aim of the current study is to increase adherence in cannabis misusers with different Web-based treatment offers.

**Methods:** A three-arm RCT to compare the effectiveness of (1) a web-based self-help intervention with adherence-focused guidance and social presence (arm 1); (2) a similar intervention without social presence (arm 2); and (3) a waiting list at reducing cannabis use in problematic users. The two active interventions consist of 8 modules designed to reduce cannabis use and attenuate common mental disorder symptoms based on the approaches of motivational interviewing and cognitive behavioral therapy. Data is collected at baseline, 6 weeks, and 3 months after baseline. Data analysis follows the intention-to-treat (ITT) principle and uses multiple imputation by chained equations to deal with missing values.

**Results:** Intermediate ITT analyses demonstrate effectiveness in form of harm reduction for smoked standard joints in study arm 1 ( $\beta = -10.41$ ,  $SE = 4.80$ ,  $t = -2.16$ ,  $p = .04$ ,  $d = -.95$ ), as well in the one without social presence (study arm 2;  $\beta = -11.45$ ,  $SE = 3.60$ ,  $t = -3.18$ ,  $p < .01$ ,  $d = -1.06$ ) in comparison with the waiting list. These effects were higher as in the previous study with the

chat-counselling offer. The intervention arm without social presence was also effective compared with the waiting list in the number of consumption days ( $\beta = -5.75$ ,  $SE = 2.39$ ,  $t = -2.40$ ,  $p = .02$ ,  $d = -.89$ ). There was no increase in adherence regarding the number of finished modules (VB1:  $M = 2.7$ ,  $SD = 2.6$ ; VB2:  $M = 2.3$ ,  $SD = 2.5$ ;  $t = 0.81$ ,  $df = 142$ ,  $p = .21$ ).

**Conclusions:** The preliminary results could not show higher adherence as was postulated. However, the effectiveness of both interventions is very promising compared to the results of our previous chat-based counselling study but has still to be viewed with caution as we have included half of the required total sample so far. The complete study is to be expected to be published in the summer of 2019.

## Flavio Marsiglia, Stephen Kulis and Stephanie Ayers

### ***The effectiveness of parallel adolescent and parent interventions to reduce substance use among immigrant and refugee youth***

Speaker: Flavio Marsiglia

**Purpose:** The purpose of this study (2012-2017) was to assess the combined effectiveness of two efficacious parallel interventions for immigrant and refugee adolescent substance use prevention: a parenting program, Families Preparing the New Generation (FPNG); and a school-based youth curriculum, keepin' it REAL (kiR). The study followed an ecodevelopmental perspective.

**Methods:** To test effectiveness, the research team relied on a community partner to deliver the interventions under "real world" conditions in a large urban center in the USA with high numbers of immigrant and refugee families. Parent-adolescent dyads ( $N = 532$ ) from 19 middle schools were randomized into three intervention conditions: Parent-Youth (PY), Parent Only (PO) and Control (C). Data were collected through four surveys: baseline (T1), 4 months (T2), 8 months (T3), and 20 months (T4). The interventions occurred between T1 and T2. Generalized estimating equations (GEE) were used to estimate the effectiveness of the interventions on the use of different substances. Multiple imputations were used to handle attrition and missing data. The final analytic sample included 508 youth.

**Results:** The results indicate that between T1 and T4, adolescents in the C condition had significantly higher probabilities of overall substance use, while adolescents in the PO condition had marginally lower probabilities of overall substance use between T2 and T4. Adolescents in the PY condition remained stable over time with no significant increases or decreases in substance use. At T4, adolescents in the PO condition were significantly less likely to report overall substance use compared to adolescents in the C condition. The same pattern of



results were seen separately for alcohol use. There were no significant differences between the intervention groups over time in inhalant, cigarette, or marijuana use.

**Discussion & implications:** The parent only (PO) conditions yielded the strongest effects. This finding has important implications for prevention with this population. It highlights the importance of involving families in any prevention efforts for youth. Future research includes the replication and adaptation of the intervention in partnership with European countries with high numbers of immigrants and refugees. Additional implications for prevention and cultural adaptation science as well as translational research will be discussed.

## Matthijs Blankers and Ajla Mujcic

### *E-health and m-health: using new technologies to respond to drug problems*

Speaker: Matthijs Blankers

In this presentation - based on a recent EMCDDA commissioned paper - we will provide a definition of e-health and m-health tools to address substance use problems, and a taxonomy to describe such tools systematically. A number of examples of e-health tools that are currently being used in Europe for prevention and harm reduction of substance use will be presented, based on a selective literature search. It was found that most of the available research has focused on the reduction of cannabis use, alcohol moderation and smoking cessation, and to a lesser extent on reducing use of stimulants and opioids. Recent reviews and other studies on the effectiveness of e-health tools will be discussed. The presentation concludes with a number of future challenges for the wider implementation of e-health and m-health for substance use prevention in Europe.

## Katrina Champion, Nicola Newton and Maree Teesson

### *Internet-based prevention for alcohol and other drugs: An overview of the universal Climate Schools prevention programs*

Speaker: Katrina Champion

**Objective:** Substance use is one of the leading causes of burden of disease among young people, and effective prevention is critical. The Climate Schools courses are online, universal school-based programs designed to prevent alcohol and other drug use and related harms among adolescents. Developed in consultation with students, teachers and health professionals, the courses utilise cartoon storylines, quizzes and group activities, within an online delivery framework, to engage students. The aim of this presentation is to provide an overview of the effectiveness of the Climate Schools courses and to

discuss future directions for dissemination and ongoing development.

**Methods:** To date, four Climate Schools modules have been developed and evaluated: 1) Alcohol module; 2) Alcohol & Cannabis module; 3) Cannabis & Psychostimulants module; and the 4) Ecstasy & Emerging Drugs module. Approximately 14,000 students from 157 schools in Australia have participated in six randomised controlled trials (RCTs) of these Climate Schools courses. In each RCT, schools were randomly allocated to an intervention (Climate Schools) or control group (health education as usual). Students completed self-report surveys across multiple time points assessing alcohol and other drug use, harms, and knowledge. Multi-level models were conducted to analyse group differences over time, taking into account the clustered nature of the data.

**Results:** Results from the RCTs have shown the Climate Schools courses to be effective in increasing knowledge about alcohol and other drugs (Cohen's  $d=.56$  to  $.77$ ), decreasing alcohol use ( $d=$  up to  $.42$ ), binge drinking ( $d=$  up to  $.56$ ), cannabis use ( $d=.19$ ) and reducing alcohol-related harms ( $d=.20$ ). Moreover, all of the Climate Schools modules were well-received by students and teachers, with teachers rating the programs as having high educational quality, and more favorable than other drug and alcohol education programs.

**Conclusions:** Climate Schools provides schools with evidence-based prevention resources that can be readily accessed online. Future directions include continuing to take the intervention to scale, and evaluating the effectiveness of an integrated online program for students and parents, known as the Climate Schools: Student & Parent intervention.

## 1.3 Alcohol

### Ruben Kramer

#### *Regulating alcohol marketing as a preventive measure for alcohol-related harm: Towards a suitable model for Belgium*

**Background:** Exposure to alcohol marketing can lead to earlier alcohol drinking initiation and increased alcohol consumption. Although restricting alcohol marketing is identified as one of the most cost-effective measures to prevent alcohol-related harm, Belgium still has limited regulation on alcohol marketing. The aim of this policy-oriented study is to find a regulatory model that protects public health and fits within the Belgian context.

**Methods:** We studied six regulatory models in Finland, France, Norway, Poland, The Netherlands, and the United Kingdom, by means of document analysis and explorative expert interviews. Furthermore, we conducted semi-

structured interviews with Belgian stakeholders (n=20) to understand their perception of a suitable regulation model for Belgium. The sample consists of private actors, policymakers, researchers and (public) health actors.

**Results:** In the studied countries, rules concerning alcohol marketing are incorporated in statutory and non-statutory bodies. The models range from including comprehensive general bans to flexible voluntary codes. Most stakeholders disagree that strict state-regulation fits the Belgian context. It is questioned whether a restrictive model is appropriate and feasible in a context where alcohol production and consumption is socially, culturally and economically embedded in society. In addition, some actors challenge the effectiveness of stricter regulation if it is not part of a more comprehensive alcohol policy.

**Discussion:** From a public health perspective, a restrictive alcohol marketing approach is recommended. Countries with perceived 'alcohol cultures' (e.g. France) illustrate that strict regulation models are feasible. However, the lack of support among stakeholders increases the likelihood of future relaxation of the regulations and a decrease in effectiveness. The current study recommends a model that stipulates the allowed marketing communications instead of the prohibited practices. This offers the possibility to allow certain types of alcohol marketing, with a limited risk of undesirable substitution effects. Lastly, a restrictive alcohol marketing approach will be most effective in preventing alcohol-related harm within the framework of a comprehensive multi-domain alcohol policy.

## Ina Koning and Vincent Van der Rijst

### *Closing the gap between research and intervention implementation: a welcome challenge*

Speaker: Ina Koning

As recognized by the conference organizers, the use of research findings in intervention development and implementation remains a challenge. In the current study, we face this challenge by involving several stakeholders in the development of an intervention targeting alcohol use in a small municipality in the Netherlands. Moreover, the development of the intervention activities has a strong scientific foundation. A needs assessment has been conducted, making use of qualitative as well as quantitative data collection methods, longitudinal data will be collected and a comparable control group is used. However, in practice a cultural change is needed, people can't wait to undertake action, or show high resistance. Also, policy makers are much in favor of the so-called 'Iceland model', an integral intervention program targeting substance use. Yet, we opt for the evidence to provide input for intervention development. The design of the study, results of the needs assessment as well as the ways that were and will be undertaken to close the gap

between research and intervention implementation will be discussed.

## Jeroen Lammers, Marloes Kleinjan and Rutger Engels

### *Effectiveness of a selective prevention program targeting personality risk factors for alcohol misuse among young adolescents: Results of a cluster randomized controlled trial and implications for implementation*

Speaker: Jeroen Lammers

**Aim:** Preventure is a selective school-based alcohol prevention program targeting personality risk traits. To explore whether specific groups of adolescents (i.e., scoring high on personality risk traits, having a lower education level, or being male) benefit more from the Preventure intervention with regard to curbing their drinking behaviour.

**Design:** A clustered randomized controlled trial, with participants randomly assigned to a 2-session coping skills intervention or a control no-intervention condition. 699 adolescents aged 13–15; 343 allocated to the intervention and 356 to the control condition; with drinking experience and elevated scores in either negative thinking, anxiety sensitivity, impulsivity or sensation seeking.

**Measurements:** Differential effectiveness of the Preventure program was examined for the personality traits group, education level and gender on past-month binge drinking (main outcome), binge frequency, alcohol use, alcohol frequency and problem drinking, at 12 months post-intervention.

**Findings:** On the one hand, logistic regression analyses revealed no significant effects on the primary outcome binge drinking, and the secondary outcome measures alcohol use, problem drinking, alcohol and binge drinking frequency at 12 months post-intervention. On the other hand, latent-growth analysis revealed that the intervention overall resulted in significantly less growth in binge drinking and binge drinking frequency over 12 months' time. Subgroup analyses revealed that the intervention was primarily effective among the personality traits of anxiety sensitivity and sensation seeking, and among young adolescents with a lower level of education. Within these groups, intervention effects were found for binge drinking and alcohol use at 12 months post-intervention.

**Conclusions:** The alcohol selective prevention program Preventure appears to have effect on the prevalence of binge drinking and alcohol use among specific groups in young adolescents in the Netherlands, particularly personality traits and lower educated adolescents. **Implementation:** Based on these results the intervention has been further developed for other school types, e.g. demonstration schools and special needs education.

These type of schools have a vulnerable population of students, including students with psychiatric disorders, problem behaviours, and mild intellectual disabilities. An implementation pilot is carried out at these schools. The results of this pilot will be available at the time of the conference.

## Emma Davies and Adam Winstock

### *The impact of alcohol health warning labels on drinking behaviours: an international survey*

Speaker: Emma Davies

**Background:** Alcohol is responsible for a large share of death and disability around the world. Legislation is the most effective way to reduce consumption, but providing information to drinkers is also important to raise awareness of health impacts. The European Union has recently called for some information, such as the strength of drinks and calorie content, to be mandatory on alcohol labels, and research has started to explore the effects of including health information. However, there is still a lack of evidence for the effectiveness alcohol labelling, as well as about the most appropriate messages to deliver.

**Methods:** The Global Drug Survey (GDS) is a large anonymous cross-sectional web survey. This study included data from 77,974 respondents who reported alcohol consumption in the last month (64.2% male) during November and December 2017 (GDS2018). Seven health messages relating to liver disease, cancer, heart disease, calories, violence, taking two days off, and myths about benefits of drinking were presented. Respondents were asked if the information was new to them, if they believed it, if it was personally relevant, and if it would change their drinking.

**Results:** The message that cancer was associated with alcohol use was the least well known, and this label had the potential to encourage almost 40% of drinkers to think about drinking less. The label suggesting there were few health benefits associated with alcohol was believed by the smallest proportion (62%) of respondents. The message about violence was rated as the most personally relevant label (40%).

**Discussion:** These findings support the call for mandatory health warning labels on alcohol. Although information may not be sufficient by itself for behaviour change, health warning labels could play a role as part of a broader package of measures to reduce alcohol related harms. More work is needed to explore the optimal type of messages and images that will have the most impact on behaviour. Further research should also address factors that influence whether drinkers see health messages as personally relevant to them, as this may be a barrier to effectiveness.

## 1.4 Innovations in prevention

### Michalina Szafranska, Ewa Radomska, Katarzyna Struzinska and Jan Bazyli Klakla

#### *Hot spot analysis of crime in Krakow (Poland)*

Speaker: Ewa Radomska

Researchers associated with geography of crime or environmental criminology have for years proven that crime is a spatially heterogeneous phenomenon. Each place can create a separate microenvironment differing in the social and economic status of people residing and staying there, the level of formal and informal social control, the degree of social cohesion and the architectonic system. Certain characteristics of public space may correlate with greater or lesser susceptibility of a place to problems related to the crime of a given type or public disorder. The presentation will focus on the use of crime map technology and Geographical Information Systems (GIS) in the local crime prevention policy. We will present the results of the exploratory analysis of Krakow's hot spots, i.e. places where an above-average accumulation of crimes is not accidental. It is indicated that even half of all criminal events committed in a given area can be concentrated in hot spots and many problems with crime could be solved more efficiently if we focused on them.

### Marc Harris

#### *Gamification of physical activity as a method of addressing health and social inequalities – Findings from 18 UK interventions.*

**Background:** People who are physically active have a 20-30% reduced risk of premature death, however a recent review concluded insufficient evidence for current population physical activity (PA) interventions, citing scalability as a major contributory factor. Beat the Street aims to address this key implementation issue by turning a town/city into a game where players register their walking and cycling journeys by tapping a smartcard on RFID readers called 'Beat Boxes' placed on lampposts around the town or city. Players monitor their progress via a website where they can see their own and their team's progress, and the overall city/town target.

**Methods:** During registration, participants completed a questionnaire which included a validated physical activity (PA) measure. Follow up surveys were distributed at the end of the game and up to 8 months later. Pre-intervention/post-intervention comparisons were completed based on survey responses and in-depth analysis was completed based on data from each player's activity by tapping their smartcard on beat boxes.



**Results:** In 2016, 18 community-wide interventions were delivered throughout the UK. In total, 300,053 people played the game, 64,512 players registered online and 6,767 players completed a follow-up survey immediately following the game period. Across all interventions delivered in 2016, 62% of participants were living in the highest 4 deciles of multiple deprivation and 10% had a long-term medical condition. Pre-test/post-test analyses revealed a 9% increase in the proportion of people meeting the World Health Organisation PA guidelines and a 5% decrease in the proportion of people reporting being inactive ( $p < .05$ ).

**Conclusions:** The findings from 18 Beat the Street interventions delivered across the UK in 2016 suggests gamification is a promising approach to changing population levels of PA. The demographic characteristics of participants implies gamification may be particularly effective for reaching typically 'hard-to-reach' groups such as those living with a long-term medical condition and those living in areas of high deprivation.

**Kristin Martinsen, Solveig Holen,  
Simon-Peter Neumer, Joshua Patras  
and Anne Mari Sund**

***Preliminary results from the effectiveness study of the preventive EMOTION intervention and use of technology to improve uptake of the intervention in the services.***

Speaker: Kristin Martinsen

**Introduction:** Anxiety and depression are common disorders in childhood. Having elevated levels of internalizing symptoms may also reduce functioning and increase the risk of later development of anxiety or depression. The new transdiagnostic preventive intervention (EMOTION) targeting symptoms of anxiety and depression in school aged children was evaluated. First preliminary results are presented. Then, planned use of innovative methods and technology to meet the pressures of practice, improve uptake and ensure continued quality improvement are discussed.

**Methods:** A cluster randomized controlled study with school children ( $N = 873$ ) aged 8 – 12 years was conducted in multiple schools ( $N = 36$ ) in Norway to evaluate the preventive EMOTION intervention. With informed consent,  $N = 1686$  children were screened using the Multidimensional Anxiety Scale for Children (MASC-C) and the Mood and Feelings Questionnaire, short version (SMFQ). Children scoring 1 SD or more above an expected population mean on the measures of anxiety and depression were invited to participate in the study. Parents of these children also reported on measures of anxiety and depression.

**Results:** The preliminary results from the effectiveness evaluation of the preventive intervention, indicating reduced levels of anxious and depressive symptoms, will be presented. Plans to meet the pressures of practice and to ensure uptake of the intervention in the youth services using partial internet-based delivery and use of virtual reality technology as promising innovations will be discussed.

**Conclusion:** The new preventive transdiagnostic EMOTION intervention reduced symptom levels of anxiety and depression. To meet the pressures in the services, improve uptake and ensure continued quality improvement of the new promising preventive intervention, use of innovative approaches will be discussed.

**Linda Cambon, Olivier Aromatario and  
Aurélien Affret**

***Efficacy and conditions of efficacy of a smoking cessation e-'Tabac Info Service': ee-TIS trial, a combined approach for evaluation***

Speaker: Linda Cambon

An e-'Tabac Info Service' (e-TIS) has been designed to provide intensive support to smokers who are wishing to quit. It is based on effectiveness criteria of online programs, various theoretical models, psychosocial and behavioural change theories and tobacco specialists' expertise. E-TIS helps smokers to progress through different stages (contemplation, intention, action) providing tailored activities, self-reporting exercises, tips, social or psychological support, reassurance and motivational text messages. These contacts are adapted to individuals and progress levels. E-TIS evaluation started in 2017 and still runs. Its aim is to i) assess e-TIS efficacy and ii) describe e-TIS efficacy conditions through the Medical Research Council recommendations for the process evaluation of complex interventions. The study is a two-arm pragmatic randomised controlled trial including a process evaluation with 3000 participants randomised to the intervention or control arm (current practices). The main judgment criterion is the point prevalence abstinence (PPA) of 7 days at 6 months. The efficacy is blind analysed by comparison at 3, 6, 12 months of the primary and secondary endpoints in both arms (e.g. PPA and continuous abstinence). To assess the processes, we will clarify the intervention components (BCTs used in e-TIS) and the environmental components to which the subjects have been exposed. We will also look into how e-TIS has been used (frequency and duration of use, activities performed). To do so, we will characterize the intervention theory by attributing one or several BCTs to each contact (e.g. messages, activities, questionnaires). This will be carried out by a multidisciplinary committee as follows: (1) two groups of researchers will attribute BCTs to contacts, (2) both groups will compare their results and draw a consensus and (3) researchers will present their results to the committee which will draw in turn a

consensus. Then we will describe the pathway of users in the intervention arm and analyze the influence of users characteristics, processes, context and exposure to BCTs on the outcome. For the EUSPR conference, the evaluation protocol, preliminary results on e-TIS efficacy and conditions of efficacy will be presented. This study helps to design comprehensive and contributive evaluations of existing apps.

**Michael Hecht, Anne Norris, Roxana Delcampo Thalasinis, Michelle Miller-Day, Eilene Smith and Kenneth Ingraham**

***Using innovative, interactive, virtual reality gaming technology to reduce risky sexual behavior in early adolescents: The challenges of testing and implementing innovative, cutting edge prevention technology***

Speaker: Michael Hecht

An interdisciplinary research team from nursing, communication, public health, performance, and gaming technology disciplines successfully developed, implemented and evaluated the Mighty Girls curriculum to reduce risky sexual behaviors among early adolescent Latinas. While overall US teen pregnancy has declined, it remains high among US Hispanics/Latinos and in any case, exacts significant personal and social costs whenever it occurs. The team developed a curriculum, Mighty Girls, that combines face-to-face interactive lessons with a highly interactive, single player, virtual reality computer game (DRAMA-RAMA). The lessons teach about the consequences of choices, and sexual pressure resistance skills. The game reinforces lesson content and builds resistance skills by creating a live simulation of everyday early adolescent social encounters involving peer pressure. Results for a randomized group efficacy trial indicate that the Mighty Girls program significantly effects resistance self-efficacy and heavy petting behavior 3 months post intervention relative to baseline levels. The project, however, was not without implementation challenges involving the use of innovative, cutting edge, internet based technology in low income schools. The presentation will describe: (1) the technology that underlies this virtual reality computer game, and the advantages of using simulated peer interactions over traditional role play; (2) how this computer game was created, including the evidence that was used to guide and inform this process; (3) evaluation findings; (4) the challenges of interdisciplinary disciplinary work, (4) challenges faced in implementing this curriculum; (5) costs associated with the current technological approach and (6) potential alternative technologies. We will conclude by discussing how technology-based interventions such as Mighty Girls can be taken to scale, including how Hecht's company, REAL Prevention, has accomplished this with other technology-based interventions.

## 1.5 Early career session I

**Adina Lang, Lisa Moran, Cheryce Harrison, Helena Teede, Geraldine Barrett, Jennifer Hall and Jacqueline Boyle**

***Preconception health behaviours of reproductive aged women***

Speaker: Adina Lang

Introduction: Missed opportunities exists to optimise women's health before (preconception) and between (interconception) pregnancies. This represents a timely window to address reproductive intentions, wellbeing and behaviours in accordance with guidelines to reduce maternal and child health risks. This study aimed to assess pregnancy intention, preconception health (PCH) behaviours and information preferences of pregnant women.

Methods: A cross-sectional survey, incorporating a validated pregnancy intention measure, of pregnant women aged 18-44 years attending a public maternity service in Melbourne, Australia (08.2017-03.2018).

Results: Two-hundred-and-seventeen women (30±4.9 years) completed the study questionnaire. Planned pregnancies were reported by 70% of women, while 28% were ambivalent and 2% were unplanned. Overall, most women took vitamin supplementation with folic-acid (multivitamins 43.8%, folic-acid alone 12.4% or folic-acid with iodine 8.8%) and 49% accessed information on a PCH topics from a health professional. On multivariable analysis for sociodemographic factors, supplementation with folic-acid was independently associated with age (>25 years; OR 3.4, 95%CI 1.1-10.4 p=0.032) and planned pregnancy (OR 22.2, 95%CI 8.4-59.0 p<0.001). Accessing information from a health professional was independently associated with planned pregnancy (OR 3.4, 95%CI 1.8-6.7 p<0.001), and having a planned pregnancy was independently associated with being married/defacto (OR 5.6 95%CI 1.8-18.1 p=0.004). Women's preferred sources of preconception information were health professionals (70%), internet (62%) family/friends (33%), mobile apps (27%), books/magazines/leaflets (18%) and social media (11%).

Conclusion: A high proportion of women in this study planned for pregnancy. Encouragingly, there was good uptake of supplementation with folic-acid, a marker of appropriate PCH behaviour. However, under half of women accessed a health professional for preconception information and opportunities exists for improved engagement. A system-wide shift is needed integrating PCH promotion within the healthcare continuum, including awareness-raising and multi-strategic collaborative efforts

by health practitioners, researchers and policy-makers to improve PCH.

## **Antje Kula, Julia Feesche, Ulla Walter and And The Koakik-Team**

### ***Problem solving skills in kindergarten children – preliminary results of the WALLY testings within the KOAKIK-project***

Speaker: Antje Kula

Problem solving competences are listed as one of the ten life skills defined by the World Health Organisation. The promotion of life skills is quite often a part in or the aim of interventions in the field of prevention and health promotion. The joint KOAKIK (Cognitive activation in inclusive childcare institutions) project, funded by the Lower Saxonian Ministry for Science and Culture, aims at strengthening the abstract and personal learning competences of kindergarten children by training the educational staff in cognitively activating methods (Sustained Shared Thinking and Scaffolding). Effects will be evaluated in a controlled longitudinal study design using a mixed methods approach. 26 childcare institutions take part (intervention group  $n=16$ , control group  $n=10$ ). Qualitative and quantitative data will be collected at staff as well as child level at two measurement points in time. Considering the problem of indirect assessment of the children's skills by interviewing parents or educational staff, we choose the WALLY test as an instrument for evaluation. The children's problem solving skills in the context of social challenges are assessed directly. Baseline measurements provide datasets of more than 300 children. In our contribution, we will give a brief summary of the WALLY test and the results of the preliminary analysis of the baseline measurements as well as discuss its potentials and problems. The conclusions may enhance the ongoing process of developing sound study designs in the field of prevention research.

## **Samuel Tomczyk, Georg Schomerus, Susanne Stolzenburg, Holger Muehlan and Silke Schmidt**

### ***An application of the theory of planned behaviour to help-seeking in adults with currently untreated mental health problems — a longitudinal study***

Speaker: Samuel Tomczyk

Background: A considerable proportion of people with mental health problems does not seek professional help. Therefore, we examined socio-psychological precursors of help-seeking via the theory of planned behaviour (TPB) in a sample of adults with currently untreated mental health problems.

Methods. We assessed components of the TPB, help-seeking intentions and behaviour in a longitudinal sample of 188 participants from the general population (Mage=50.34; SD=16.19; 70.7% female). Components of the TPB (attitudes, subjective norms, and perceived behavioural control), help-seeking intentions and covariates were assessed at baseline. Help-seeking from mental health professionals was assessed at 3- and 6-month follow-ups. The TPB was examined via path models controlling for covariates.

Results: Attitudes ( $\beta=0.24$ ), and subjective norms ( $\beta=0.26$ ) predicted intentions ( $R^2=27\%$ ), which in turn predicted help-seeking ( $\beta=0.34$ ;  $R^2=23\%$ ). Perceived behavioural control was associated with help-seeking intentions and behaviour in bivariate regression models, but did not reach significance in the path models.

Limitations: Our study was conducted in Germany, thus our findings are rooted in the German healthcare system, which differs from other countries' healthcare systems.

Conclusions: The TPB is a tenable model for explaining help-seeking for mental health problems. However, the role of perceived behavioural control is less clear, as only its component self-efficacy showed the anticipated positive trends towards help-seeking. Therefore, particularly fostering positive attitudes towards professional treatment and activating social support seems pivotal, e.g. for general practitioners, who often represent the first point of contact for people with mental health problems in the general population.

Funding: This study was supported by the German Research Foundation (DFG) [grant numbers SCHO 1337/4-1, SCHM 2683/4-1].

## **Maximilian von Heyden**

### ***Don't offend to peer: Raising problem awareness and building treatment motivation in users of child sexual abuse images***

Reaching people with pedophilic or hebephilic inclinations as early as possible is an important factor of the prevention of child sexual abuse (CSA) and the use of child sexual abuse images (CSAI). CSAI are readily available on file-sharing networks, even to users without advanced technological skills – providing images displaying the whole spectrum of CSA including very severe sexual offences against children. Law enforcement has not been able to stop the exchange of CSAI in these networks during the last 15 years and users in most countries do not fear prosecution. Despite the high relevance of closed communities exchanging CSAI, most content gradually diffuses into openly available file sharing networks. "Don't offend to peer" (DOTP) is a research project, that analyses and infiltrates established, searchable peer-to-peer file sharing networks with therapy messages masked as CSAI



as part of a comprehensive internet-driven approach, which aims at raising problem awareness in users of CSAI and inform them about therapeutic options. The objective of the promoted therapeutic approach lies in working on the ability to control sexual impulses and sexual behaviour directed at children. The presentation will give insights into the first results of DOTP and outline innovative internet-driven ways of targeting stigmatized populations, which carry health relevant risk factors.

**Alexandra Morales, Miriam Rodríguez, Silvia Melero, José Pedro Espada and Mireia Orgilés**

***Effects of video-feedback and cognitive preparation for improving social performance and anxiety symptoms through Super Skills for Life program***

Speaker: Alexandra Morales

Several cognitive-behavioral programs focused on the treatment of social anxiety have been developed in the last decade. However, the effects of the components video-feedback and cognitive preparation have not been widely studied interventions targeted to children. Super Skills for Life (SSL) is a cognitive-behavioral program that integrates behavioral activation, social skills training, video-feedback and cognitive preparation. This program has proven to be effective in reducing emotional problems and anxious symptoms in Spanish children. Nevertheless, few results have specifically evaluated the effectiveness of SSL program on social performance, despite its relationship to social anxiety and other anxiety disorders. The current study aims to analyze the effect of SSL program on social performance in a sample of 57 children aged 8 to 12 years old, who presented emotional symptomatology. Children answered self-reports about anxiety symptoms before and immediately after intervention. Children's social performance was assessed through an activity in which they had to talk for 2 minutes while they were being recorded. These activities were conducted in the first and last session of the program. Post-intervention results showed lower level of anxiety and an improvement of social and communication skills compared to the baseline. SSL program had a different impact on social performance between boys and girls. In general, the impact of SSL program was higher in boys, but more appropriate social performance was observed in girls. These results suggest that the SSL program, through video-feedback with cognitive preparation, contributes to the reduction of anxiety and to the improvement of social performance in children. Findings of the current study indicate that SSL program may prevent and treat anxiety symptoms (including social anxiety) through the improvement of social competence. Future studies should explore the mechanisms that underlie the effectiveness of the SSL program, including social competence, to reduce social anxiety and other anxiety problems in children.

## **Parallel Session 2 (16.00–18.00)**

### **2.1 Special Session: The Prevention Workforce: An Emerging New Identity**

**Zili Sloboda, Peer van der Kreeft, Giovanna Campello, Gregor Burkhardt, Michal Miovsky and Harry Sumnall**

***The Prevention Workforce-An Emerging New Identity***

Speaker: Zili Sloboda

One of the greatest challenges facing the prevention field is in the establishment of a professional workforce. For decades prevention professionals struggled to define themselves as being members of a legitimate, well-defined field and not step-children of other disciplines. With the creation of the U.S. and E.U. Societies for Prevention Research, the publication of the International Standards on Drug Use Prevention (United Nations Office on Drugs and Crime) and of the European Drug Prevention Quality Standards (European Monitoring Centre for Drugs and Drug Addiction), and, most recently the development of the Universal Prevention Curriculum (Applied Prevention Science International) and in association with the International Consortium of Universities for Drug Demand Reduction, the prevention field, specifically the substance use prevention field, is well-poised to be established as a bone fide profession. Several challenges lie ahead—integrating prevention science into practice, the invisible nature of prevention diffused over many settings, and, the inconsistency of service delivery that leads to erratic funding over time and no structured career paths for prevention professionals. The panel will first address the professional needs of four levels of prevention professionals defining special attributes of each. These include the policy maker at all government levels; the program planner/decision maker at the local level; the prevention worker implementing prevention interventions/policies; and the newcomer either trained already in some discipline such as education, social work, public health who is new to prevention and the student who is in college or university who could have a focus/major in prevention science and its application. Important to these presentations is a discussion of what are next steps in creating prevention workforce and its new identity

## 2.2 Special Session: EPPIC — Exchanging Prevention practices on Polydrug use among youth In Criminal justice systems

EPPIC (Exchanging Prevention Practices on Polydrug Use among Youth in Criminal Justice Systems) is a three year European project funded by the Third EU Health Programme 2014-2020 (Chafea). It focuses on prevention and addressing all types of illicit drug use among young people (15-24) who are in touch with the criminal justice system. The project involves partners in six European countries (Austria, Denmark, Germany, Italy, Poland and UK). A range of qualitative approaches have been used to identify innovative prevention approaches and projects; to collect new information: on the drug using trajectories of young people in the criminal justice system and on their perceptions and experiences of interventions; and to examine the views of service providers on prevention approaches for this target group. The papers in this special session will examine some of the preliminary findings from the project focusing on the following themes: coercion and the criminal justice system; drug using and offending careers; diversity and prevention initiatives; best practice and quality standards for those in touch with the CJS; the relationship between legislation and prevention and the development of holistic approaches and interventions.

**Günter Stummvoll, Rahel Kahlert and Cees Goos**

### ***Drug Treatment for Young People in a Coercive Context: A Paradoxical Choice***

Speaker: Günter Stummvoll

Polydrug use is common among young people in touch with the criminal justice system. However, the consumption of alcohol, tobacco and illegal drugs is not a single problem of health or criminality, but the complex interaction of multiple problems of mental health and social deprivation. Substance use is often a means of coping with extensive difficulties, such as domestic violence and parental drug addiction. Moreover, health problems are often connected with economic deprivation: poor schooling, poor housing and being unable to get into the job market, which again increases the risk of entering criminal networks. Therefore, most jurisdictions in Europe take developmental and socio-economic circumstances of young people into account and offer drug treatment both in the course of imprisonment and as a procedural alternative to imprisonment. Juveniles in particular are granted specific medical and psychological therapy together with provisional suspension of their sentences. In this paper we will discuss coercive elements in the process of treatment. The formal “offer” by the prosecution or the judge to take treatment is often experienced as

an obligation in the eyes of an offender. However, we may argue that all therapeutic drug treatment includes elements of coercion to some extent. This may have severe consequences for the relationship between a therapist and the client. We will examine the practical conditions and discuss the consequences of this “paradoxical choice” in three settings considered in the EPPIC project: drug therapy in prisons, in residential facilities, and in out-patient psycho-therapy. In each situation therapy has a different meaning and different treatment methods are applied. How does therapy in a coercive context react to socio-economic deprivation and mental health problems of young people who came in touch with the criminal justice system? How do therapists cope with the challenges in this particular enforcement context?

**Sara Rolando and Franca Beccaria**

### ***The role of critical moments in young drug-using offenders' careers***

Speaker: Sara Rolando

Youth drug consumption and involvement in criminal activities are major concerns in contemporary western societies. Many studies have been conducted in order to shed light on the relationship between use of psychoactive substances and crime; however this kind of research presents a number of limitations. First, the majority of studies is about heavy heroin users and is influenced by the ‘official view’ that tends to problematize drug use. Second, too often the drug use is decontextualized from the broader social context. Third, there are limits coming from the epistemological assumption which assumes that interviewees possess ‘reasoned reasons’ for what they do and, therefore, that their practices are objectifiable (Allen 2007). Trying to avoid these risks, the present study focuses on the concept of “critical moments” (Thomson et al. 2002), applying an analytical approach appropriate to uncovering the role of social structures and processes on individual biographies. Indeed the approach entails comparison between different narratives in order to understand how young people react to similar circumstances based on their social and cultural resources. Furthermore, the concept of critical moments bridges the gap between what young people tell and what actually happens to them, and between the interviewer’s and the interviewee’s points of view. Data are drawn from 40 interviews with Italian current or past young users (age 15-25) who are in touch with the Criminal Justice System. The research is part of the EPPIC project (<https://www.eppic-project.eu>).

## Helen Gleeson, Betsy Thom and Karen Duke

### ***Challenges to providing culturally sensitive substance misuse interventions for Black, Asian and Ethnic Minority (BAME) groups within the youth justice system in the UK.***

Speaker: Helen Gleeson

In the UK, young people accessing substance misuse services via the Youth Justice System (YJS) usually do so as part of an out of court (caution) disposal where they are offered intervention as an alternative to custody. The Race Equality Act (2010) states that public services must be offered to all people regardless of their race or ethnicity. However, there are disparities in the treatment and outcomes of young people across all levels of the YYS (Lammy, 2017). Both the Drugs Strategy (2017) and the Serious Violence Strategy (2018) make explicit the links between violent crime and drugs, reinforcing the narrative of young black males as dangerous and violent. Preventing or reducing drug use is itself often framed as a means of protecting society and 'vulnerable' youth. If the accepted narrative of non-white substance using youth is that of the dangerous gang member it is unlikely that interventions to reduce the individual harm of substance misuse, or the exploitation of young people within gang culture (for example in the issue of County Lines), will be tackled with empathy or with genuine reference to needs of this population. Practitioners working across the bounds of YYS and substance misuse are alert to the different needs of their diverse service users but at present can only offer 'flexible' interventions to individuals without sufficient training or awareness of the impact of cultural nuances that would promote positive outcomes for different ethnic groups. This presentation will assess the various frames/narratives applied to young BAME people in the YYS in England and Wales who present with substance misuse needs and the ways that these narratives are acknowledged and responded to within services from a practitioner perspective. Data are drawn from 15 individual interviews with professionals from across England and one focus group with six professionals as part of the EPPIC project. (This presentation is linked to other EPPIC project presentations from partner countries)

## Niels Graf and Heino Stöver

### ***Quality Standards for Interventions Aiming at Drug Use among Young People in Touch with Criminal Justice Systems in Different European Countries: an Overview***

Speaker: Niels Graf

There is a rising interest in documenting and ensuring the evidence base of interventions in drug demand reduction. As a consequence, several quality standards

have been developed on global, European and national levels to ensure appropriate implementation and delivery of interventions and to maximize their impact. Yet, quality standards explicitly designed for interventions aiming at drug use among young people in touch with criminal justice systems (CJSs) do not exist. However, drug use among young people in touch with CJSs typically results from an interaction of multiple problems (e.g. social and economic deprivation) so that interventions have to address several challenges at the same time in order to be effective. Moreover, interventions often cross policy and practice domains (e.g. health, criminal justice, social welfare). This also raises challenges regarding the nature, content and relevance of quality standards for interventions targeting young drug users in the CJSs.

Against this background we consider whether there are crucial elements in existing quality standards applicable to interventions aiming at our target group. To this end, we firstly conduct a content analysis of existing quality standards to identify elements and principles that are potentially relevant to interventions for drug using young people in touch with CJSs. Secondly, drawing on qualitative interviews with professionals in six European countries (Austria, Denmark, Germany, Italy, Poland and UK) we analyze practitioners' perceptions of the usefulness of quality standards for their daily work and of the barriers to implementing quality standards. Based on this analysis, we raise questions regarding what kind of quality standards, 'good practice' guidelines or practical toolkits might be most relevant and appropriate for the development, maintenance and evaluation of interventions for young drug users in the CJS.

## Jacek Moskalewicz, Katarzyna Dąbrowska and Agnieszka Pisarska

### ***Does drug legislation contribute to or limit prospects for adequate prevention?***

Speaker: Jacek Moskalewicz

National drug laws have to respect international drug conventions, binding globally what limits the degree of freedom to shape legislative frameworks and policies at the country level. In all partner countries, use of prohibited substances is not penalised. Their possession, however, is punishable in all of them, including potential deprivation of liberty. At the same time, many studies show that experiments with drug use or recreational drug use are part of the lives of many young people. Polydrug use or the use of multiple substances either concurrently or simultaneously is reported to be increasing among young people in Europe. Against this context, drug policies and drug interventions have to face the challenge of how to balance prohibitive laws with the normalisation of drugs in youth cultures. As the Candis evaluation carried out in Poland and interviews conducted in the frame of the EPPIC study show, many young people participating in



interventions are willing to accept interventions focused on harm reduction, including limited use of drugs, rather than total abstinence. On the other hand, law enforcement agents and some therapists consider even limited use as an offence and promote interventions aimed at a drug free life. Moreover, parents and representatives of educational and social assistance institutions may not accept interventions whose aims include safer or limited drug use. In addition to existing policies and data from interviews with both therapists and young people, the trajectories of drug use will be analysed to see how legal responses or restrictive social reactions may impact on the lives of young people and how national specificities of national legislations modify this impact.

### Vibeke A. Frank and Maria Dich Herold

#### ***Same concept, different practices? Enactments of a 'holistic approach' in two welfare institutions accommodating young adults with offending behavior and drug use experiences in Denmark.***

Speaker: Vibeke A. Frank

A 'holistic approach' (Da.: 'helhedsorienteret indsats') has become a buzz word in welfare policy and in how welfare institutions approach citizens in need of help in Denmark. In this paper we discuss how a 'holistic approach' is enacted in two different welfare institutions that accommodate young adults with offending behavior and experiences of illegal drug use. The first intervention is offered in remand prison, the latter in the community. A 'holistic approach' is a fuzzy concept, but overall it implies: 1) that all relevant aspects are taken into account when a service is offered to a citizen in need of help, and 2) some level of inter-professional practices and/or co-ordination between different welfare institutions (Lau et al., 2017). In other words, to focus not only on e.g. handling problematic drug use in drug treatment, but also on the broader well-being and everyday life circumstances (housing, job/education, economy, social network, etc.), and to involve other welfare services to help the citizen. Drawing on interviews with 8 professionals, evaluation reports and other written material we analyze and compare how a 'holistic approach' is enacted in the two welfare services. We draw on research literature that discusses how policies are implemented in practice and argue that a phenomenon like a 'holistic approach' is continuously in the making and exists only in its enactments in social and institutional practices (Bjerger et al. 2013). We argue that the way a 'holistic approach' is enacted depends on the institutional set-up, economic possibilities, policy frameworks, professionals' backgrounds, etc. Our two interventions differ especially on these parameters and hence make an interesting case for analyzing enactments of a 'holistic approach'. The results indicate how implementation of a concept like a 'holistic approach' can be used in interventions accommodating young people, but also in welfare institutions more generally.

## 2.3 Special Session: How to study and apply effective components

Evidence based prevention and treatment programs do not always show the expected effectiveness in 'real world' situations. This might be explained by an inadequate fit between program techniques and the service context. To improve this fit we are moving beyond the traditional program protocols and examine effective components. With the current evaluation approach it is impossible to establish whether a program protocol is the most effective approach. By examining to which extent components are associated with effectiveness (or ineffectiveness) current programs can be improved by including effective components or excluding ineffective components. Additionally, new programs can be developed based on effective components. Hence, a modular approach is used as a new technique to adjust or design interventions. This will improve the effectiveness of programs and minimize possible negative effects of the program.

In this symposium, first Dr. Melendez-Torres will present what types of components there are and which methods can be used for elicitation. Then, Mertens will present results of her meta-analysis concerning which components appear to be effective or ineffective components in secondary school based prevention programs. Third, Dr. Kjøbli will elaborate on how the effectiveness of components can be rigorously evaluated and how to use this knowledge to improve interventions or assemble them as a package. The next presenter, Dr. Skeen will discuss how to develop an intervention based on common components and test this program's effectiveness. She will relate this information to her current WHO project. Lastly, Prof. Weisz will act as a discussant to give his insights concerning the research field of effective components and future directions for research in this field.

### G.J. Melendez-Torres, Katy Sutcliffe and Patty Leiten

#### ***What exactly is a component and where do we find them? Methods and typologies for component identification***

Speaker: G.J. Melendez-Torres

The description and elaboration of intervention components is important to understand the 'active ingredients' of complex interventions, with possibilities for the development of more efficient and effective interventions and the identification of underlying principles of change both within and across intervention types and the conditions they seek to address. In this presentation, we will offer a working taxonomy of methods and types of components in complex interventions, with examples. We propose that there are three major types of components: activities and actions, which relate to tasks or behaviours

undertaken as part of the intervention (e.g. behavioural activation); features, which relate to intervention characteristics but cannot be described as activities (e.g. targeting to risk or population groups); and mechanisms, which relate to change processes interventions seek to deploy. We also propose that there are three key methods for elicitation and elaboration of components: theory-led approaches, which rely on a set of 'theoretically anticipated' components (e.g. the use of limit-setting in parenting interventions, as anticipated by social learning theory); views-led approaches, which draw on the perspectives of stakeholders to identify components; and inductively-led approaches, which rely on intervention descriptions to identify a component scheme without necessary regard to theoretical similarities.

## Esther Mertens, Maja Dekovic, Monique Van Londen and Ellen Reitz

### *What (not) to do? Meta-analysis of effective components of secondary school based prevention programs*

Speaker: Esther Mertens

Many school based prevention programs target students' socio-emotional adjustment (i.e., intrapersonal skills including regulation of behavior, thoughts, emotions and attitudes about the self) and social safety (i.e., interpersonal skills including development of positive relationships with others, attitudes about the school and social topics). However, knowledge about the effectiveness and components of these interventions is lacking. Therefore we aim to 1) examine the general effectiveness of these interventions, 2) identify common components and 3) analyze which components are most strongly associated with effectiveness of the interventions. PubMed, PsycInfo, ERIC, and CENTRAL were systematically searched for controlled studies of secondary school based prevention programs targeting students' socio-emotional adjustment and/or social safety. The search resulted in 7870 unique records of which 104 are included and currently coded. Preliminary results showed that school based interventions have an overall small positive effect on improving students' socio-emotional adjustment ( $d = .15$ ,  $p < .001$ ) and social safety ( $d = .21$ ,  $p < .001$ ). Common components in these programs are similar (i.e., insight building, social skills training, emotion regulation, discussion, role play, didactic instruction, having a manual, based on a theory, school staff involvement). No effective components for improving students' socio-emotional adjustment have been identified yet. An effective component for improving students' social safety appears to be the component homework. Ineffective components for improving students' socio-emotional adjustment seem to be relaxation, self-control, and use of worksheets. For improving students' social safety no ineffective components have been identified

yet. More interventions will be included to provide more robust results. Identification of effective or ineffective components for improving students' socio-emotional adjustment and social safety will clarify which components seem important for these behaviors. As a consequence, existing interventions could be improved or new interventions developed. Additionally, it enables schools to critically select interventions that target specific behaviors.

## John Kjøbli, Kristin Espenes and Kristian Rognstad

### *Improving outcomes for vulnerable children: Identifying the core components of intervention*

Speaker: Kristin Espenes

Introduction: The growth of evidence-based treatment (EBT) has resulted in several efficacious and effective interventions for child psychopathology. However, systematic reviews show that the effect sizes of EBTs range from small to moderate, and they have not increased during the last decades. Many EBTs only address one problem area or diagnosis, even though compelling evidence shows that comorbidity is the rule, not the exception. Children with comorbid diagnoses do not necessarily respond well to single-problem EBTs (e.g., parent management training for conduct problems). One solution to this problem is to address the underlying processes of psychopathology (e.g., emotion regulation) and flexibly tailor intervention to the individual needs of each child. To this end, we have initiated efforts to a) apply a methodology to synthesize evidence about core components, b) to develop and test parsimonious and implementable interventions.

Methods: First, the presentation will discuss strategies on how to systematically identify, map, and assess potentially effective core components. A systematic method of identifying core components, based on a broad approach, will be presented where core component mapping is conducted separately from an evidence assessment, and where the evidence for each component is presented in an unbiased manner. Second, the presentation will offer some suggestions on how components can be rigorously evaluated (e.g., time series designs, microtrials and factorial trials), and how treatments can be optimized for widespread implementation.

Results: First, preliminary findings of a systematic identification of core components will be provided. Second, examples will be given for how and when core components can be tested and optimized with different designs, before they are assembled as a package.

Conclusions: A core component approach has the potential to improve outcomes for vulnerable children. The use of systematic methods and rigorous designs may increase the effectiveness of intervention.

## Sarah Skeen, Mark Tomlinson and G.J. Melendez Torres

### *Developing an intervention package to promote positive mental health, and prevent mental disorders and risk behaviours*

Speaker: Sarah Gordon

There are a number of physical, cognitive, social, emotional and sexual changes that occur during adolescence, which make it a period requiring special attention in global health and development efforts. Risk factors for poor outcomes during adolescence overlap, and identifying common content and delivery features of proven interventions for use across multiple outcomes, may improve cost effectiveness, intervention reach and sustainability.

We undertook a global systematic review and programme components analysis to inform the development of an evidence-based psychological intervention to address these outcomes. We identified 192 face-to-face, digital and combined interventions taking place in 35 countries to promote mental health, and/or prevent depression and anxiety, and risk behaviours during adolescence. Our analysis revealed several practice components that predicted effect sizes in one or more outcomes, seven of which predicted larger effect sizes. We also found that different instructional and intervention delivery-related components were also predictive of smaller or larger effect sizes. In this presentation, we will describe the results, and specifically show how they are being used to design and develop a multi-faceted programme that will be adapted and tested in a number of countries of varying levels of resources.

**John Weisz, *Discussant***

## 2.4 Parents and families

**Deon Simpson, Finlay Green, Ailsa Swarbrick, Beth Heller, Tim Hobbs, Nick Axford, Louise Morpeth and Keira Lowther**

### *Rapid Cycle Testing of the Family Nurse Partnership: learning and next steps*

Speaker: Deon Simpson

The Family Nurse Partnership (FNP) is a structured, evidence-based home visiting programme for young mothers. It was developed in the US but has now been taken to scale in England over the last 10 years. Following changes in public health commissioning arrangements, funding cuts and disappointing results from a rigorous randomised controlled trial of FNP, the FNP National Unit

has worked with the Dartington Service Design Lab to co-design and implement changes in 10 sites to respond to these challenges.

Adaptations were co-designed with local commissioners, providers, practitioners, clients, FNP National Unit staff and researchers. Clinical adaptations focus on specific outcomes of local priority, notably maternal mental health, smoking cessation, breastfeeding, attachment and child neglect. System adaptations focus on improving programme outcomes and efficiency, including changing eligibility criteria to focus on more vulnerable clients and increasing the personalisation of FNP. The latter involves changing programme duration and the content and frequency of home visits to better meet client needs, and is driven by a new assessment tool.

These changes are being developed and evaluated by means of rapid cycle adaptation and testing. This involves using mixed methods data collection, small-scale delivery and minimally sufficient data to facilitate rapid analysis, feedback, iterative refinement and further testing until an acceptable solution is found. It draws on the emerging discipline of improvement science but also methods of intervention development and formative evaluation. Over the past year there have been monthly 'small' cycles and four 'large' cycles of testing and adaptation. Ten further sites have been recruited for a second phase of development.

Through this ambitious but pragmatic approach we are learning how to effect change to a well-evidenced programme in a way that responds to changing contexts and local and service user needs. We will share some of the key learning about the merits and challenges of the rapid cycle adaptation and testing approach, and how we plan to further adapt both intervention and testing method over the coming years.

**Kevin Haggerty, Laura Hill, Brittany Cooper and Martie Skinner**

### *Successes and Barriers to Effective Implementation in Two Self-Directed Family Interventions: What Happens, and What Matters?*

Speaker: Laura Hill

We often lack tools to determine the external validity of evidence-based prevention programs as they are implemented in the real world. Factors at multiple levels (population, policy, organization, providers) determine implementation exposure. For evidence based parenting programs, exposure to the program is a major obstacle in real world contexts. The goal of this presentation is to examine implementation successes and barriers from two different self-directed family-based preventive interventions. The presentation addresses an important



question in prevention science: What are some of the biggest implementation challenges in prevention, and how do we address these. The first study, "Connecting: Implementation Successes and Barriers of a Prevention-Based Program with Foster Families," presents implementation data from a self-directed workbook plus DVD program with foster families. We found that 82% of families engaged in some program content, yet, the level of program completion was less than we had hoped, closer to 50%. The authors will describe how these data compare to non-foster program implementation, and they will discuss implications for implementation differences and similarities in targeted versus universal programs and self-directed versus in-person programs. The second study, "First Years Away from Home: Utilization, Engagement, and Usefulness, in a Self-Directed Handbook Program for Parents of Students Transitioning to College," is also a self-directed program. We found that 85% of parents reported they read the handbook and/or completed at least some of the activities. 62% completed at least three quarters and 47% completed all 22 activities. The authors will discuss participation rates (reading the handbook) versus dosage (the degree to which parents actively engaged with and used the material); they will also compare parent perceptions of handbook utility with their young adult children's perceptions. In order to optimize the relevance of prevention, we need to understand what works, for whom, and under what conditions. Implementation barriers and successes that are similar across modalities or stages of research, as some were across these programs, provide useful information about scaling up evidence-based parenting programs effectively and efficiently.

## Maria Olarizu Miguel

### *"A community story: Sharing knowledge experiences in a prevention program"*

It is usual that non-profit entities shape the community framework and promote social changes usually related with citizens' life, wellness, health and development. Families associations have an essential role in child education. Being change agents and public institutions speakers, they can have a determinant impact in the local life, not only because the alliances with community agents they can establish, but because they also can take an active part in public governmental programs related to health, prevention, personal and social development, safety and law regulations.

Prebenfamilia is a community prevention project created by public governmental bodies and family associations in Alava (Basque Country, Spain). It has created a network that includes also remarkable universities (specific prevention research teams) and IREFREA. The initiative started in 2015, and pretends to place family needs at the heart of the community. Alava is the largest territory in Basque country. Its population is mainly concentrated at the heart of its main city, Vitoria-Gasteiz (244 000

people) being the rest (80 000 people) distributed in small local villages (2 000-18 000 people), some of them located in the countryside and mountains, in some cases a bit isolated, with a limited offer of basic local resources. That is why social network among boundaries can be an opportunity to decrease isolation, sharing experiences, services and resources. It is an innovative practice with no precedents at the region.

Being conducted by a small team of people, the project incorporates action research methodology a process of inquiry, conducted by those taking the action; here, the main aim of the practitioner is to improve and refine his/her actions. Results after three years of implementation offer hopeful perspectives: prevention materials designed, 5 community workshops and reports produced, a written manifesto and a massive event hold, concerning prevention families and leisure.

## Louise Parker, Jane Lanigan, Sheryl Hughes and Thomas Power

### *Exploring Parental Feeding Styles as Contributors to Childhood Obesity: An Integrated Research-Practice Approach to Reaching Parents in Real-World Settings*

Speaker: Louise Parker

Research evidence suggests that most children have an inborn ability to self-regulate their eating by paying attention to internal cues of hunger and fullness. However, it has also been documented that parents influence children's self-regulation through their style of feeding behavior. On one hand, when parents exert too much external control in feeding, children may learn to ignore their internal cues. However, when they offer too little structure or control in feeding, children may engage in unchecked consumption of high calorie foods or develop patterns of mindless eating. One strategy for impacting the rising tide of childhood obesity is to promote responsive feeding practices among parents. If parents learn to avoid common feeding practices shown to be detrimental (e.g., using food as a reward or punishment), problematic child eating behaviors that lead to obesity may be reduced. A team of researchers and community-based practitioners developed and tested a family intervention to reach low income parents whose children were at high risk of obesity. Instruction in seven parent sessions was driven by a series of videos that focused on recognizing internal cues of hunger and fullness, promoting exploration of new foods, portion sizes, and appropriate structuring of both the home and external eating environment. The program was conducted at two sites in the U.S., one large metropolitan area and one smaller community. Assessments were conducted at pre-, post-, 6 months and 12 month follow ups for 254 Latino families (134 prevention, 120 control) between 2014-2016. Preliminary results indicated significant effects on increasing parent responsiveness

to children's internal cues, reduction in using food as a reward, and reduction of using pressure to force their children to eat. Parents also significantly increased the involvement of their child in helping prepare food and in using several food exploration strategies linked to healthy eating. In order to facilitate broader dissemination, the videos were later adapted to add feeding content to an existing nutrition education curriculum utilized in 40 U.S. states. A randomized control trial is currently evaluating the effectiveness of delivering this content to low income parents in both face to face and online formats.

## Vashti Berry, Kath Wilkinson and Nina Farr

### *Supporting children exposed to domestic violence through parent leadership coaching*

Speaker: Vashti Berry

**Aim:** This study evaluated the feasibility, acceptability and potential impact of a strengths-based, parent-focused intervention designed to support women and children exposed to domestic violence and abuse (DVA).

**Background:** DVA is a highly prevalent social problem costing the English public purse £5.5bn/year. Since victims and children exposed to DVA will be at risk for social, emotional and behavioural difficulties even after they have left the violent context, secondary prevention is argued to be as important as primary intervention to both prevent recurrent victimisation and aid recovery and resilience. Research has demonstrated that parent mental health and the quality of parenting can mitigate the effects on children, and that advocacy and parenting support are good candidates for intervention.

**Methodology:** The Family Vision (FV) parent leadership programme is an innovative life and leadership coaching intervention designed specifically for lone parents who have experienced violent intimate relationships. The aim is to empower parents to advocate on behalf of their family and to help parents set the tone of their family culture and develop a strong sense of identity as the leader of their family. In so doing, the programme aims to improve women's empowerment and well-being, family functioning as well as children's health and development. The manualised programme was piloted in a Children's Centre and primary school in Devon, where staff were trained to co-deliver the 11-week intervention alongside the developer. Outcome data from participating parents were collected before and after the intervention using standardized measures, and interviews and focus groups with parents and staff were conducted to understand the acceptability and feasibility of the intervention.

**Findings:** Twenty-four parents were offered places on the programme; 17 completed it. Measures completed by parents pre- and post-intervention demonstrated

improvement across all outcome domains: parent well-being, parent empowerment and self-efficacy, quality of the parent-child relationship, and child psychosocial functioning. Qualitative data from interviews supported these findings, and provided useful insight into the mechanisms of impact.

**Conclusions:** These findings provide promising quantitative and qualitative data showing high levels of recruitment, retention, acceptability and feasibility of the programme. A pilot trial is in development.

## 2.5 Early career session II

### Charlotte De Kock

#### *Presence of European and non-European migrants in services across the drug treatment spectrum in Belgium and Portugal: Implications for prevention and treatment initiatives*

**Introduction:** Increased population diversity – resultant of new and 'old' migration flows, brings new challenges to drug prevention and treatment. However, little is known about the presence of migrants and ethnic minorities in drug treatment in the European Union. Contrary to census-based drug treatment registration in USA, Canada and Australia, European treatment demand indicator (TDI) protocols (1&2) only allowed for registering current nationality of service users. We analysed the presence of non-European and European migrants in treatment (as related to presence in the general population) in Belgium (a high-proportion-of-foreign-citizens country) and Portugal (low migration ratio) between 2015 and 2017.

**Methods:** We analysed and compared aggregated datasets obtained from national focal points. Data was aggregated at the levels of region, type of treatment (outpatient substitution treatment, crisis and day services, therapeutic communities) and types of substance used (alcohol and illicit substances). We qualitatively explore results by means of previous research outcomes (services user and provider perspectives) in the Belgian setting and qualitative interviews with Lisbon-based SUT stakeholders in the Portuguese setting.

**Results:** Overrepresentation in substitution treatment and underrepresentation in therapeutic communities of European and non-European migrants is apparent in Belgium and Portugal. We report significant differences between national contexts, treatment settings, regions, types of used substances, European and non-Europeans migrants and frame these results qualitatively. Although registration of nationality does not allow for in-depth analysis of treatment success, it does allow identifying important tendencies in terms of treatment and registration practices.

Discussion: Recommendations for treatment and prevention relate to a need for targeted psycho-education, structural access to treatment for varying migrant groups and knowledge transfer between outpatient, inpatient and prevention services. However, there remains a general lack of monitoring instruments and consequent analyses of migrants and ethnic minorities in drug treatment across Europe. The third TDI protocol (2013) omitted the nationality variable whereas most treatment facilities do still register non-European and European nationalities. Future research should focus on registration tools (e.g. language of mother, intersecting characteristics) supplemented with qualitative approaches for studying presence, successful service provision, service user reach, drop-out, satisfaction, treatment engagement and retention to inform prevention and treatment.

## **Georgie MacArthur, Matthew Hickman and Rona Campbell**

### ***A qualitative exploration of the intersection between social influence and cultural norms in relation to the development of alcohol consumption practices during adolescence***

Speaker: Georgie MacArthur

Background: Despite downward trends in alcohol consumption among young people in the UK, a substantial proportion drink and by the age of 16, at least one third of young people report weekly drinking. Evidence regarding effects of school-based preventive interventions is mixed and there remains a need for qualitative research to inform intervention development. We sought to explore young people's perspectives around influences on alcohol use behaviour during mid-adolescence.

Methods: Forty-two young people (n=21 males, n=21 females) were recruited from schools (n=30, aged 14-15 years) and youth groups (n=12, aged 14-18 years) in the West of England. In schools, participants were randomly selected from year 10 (aged 14-15) with snowball sampling used to maximise diversity of alcohol use. Additional participants were recruited from youth groups via youth workers. Data were collected via semi-structured one-to-one (n=25) and paired (n=4) interviews and one focus group. Interviews were audio-recorded, transcribed verbatim and analysed thematically using NVivo 10.

Results: Alcohol use was perceived as a normalised social practice in the wider population and was associated with being cool, mature and popular, while enabling escape from reality and boosting confidence and enjoyment. Positive expectancies alongside opportunity contributed to motivating initiation, but social influences were paramount for most, with participants describing a need to fit in with friends to avoid social exclusion. Such influences positioned drinking and intoxication at parties as a normative social practice, further providing

opportunities for social learning and subtle incentives to drink. Social media weaved into young people's lives the display of positive alcohol-associated depictions of social status, enjoyment and maturity. The intersection of influences, norms and incentives generated a pressurised environment, characterised by conformity being experienced as an obligation to drink, and a sense of unease around abstinence which could elicit stigmatising insults.

Conclusions: Social influences and norms contribute to development of a pressurised environment around alcohol consumption during mid-adolescence, driving the escalation of alcohol use as a normative social practice. Our findings highlight the need to acknowledge social influence and the drivers of cultural norms and practices when developing new interventions to prevent harmful alcohol use during adolescence.

## **Alexa Yakubovich, Jon Heron, Gene Feder, Abigail Fraser and David Humphreys**

### ***Is long-term exposure to neighbourhood-level deprivation associated with experiences of intimate partner violence among women in early adulthood? Findings from a UK birth-cohort study***

Speaker: Alexa Yakubovich

Background: Intimate partner violence (IPV) is the most common violence perpetrated against women. Designing effective prevention requires understanding the causes of IPV, best evidenced by studies that measure exposures and outcomes prospectively over time. However, a recent systematic review found no prospective-longitudinal study from outside the USA that had investigated the association between any community- or structural-level factor and IPV against women. We therefore aimed to investigate the relationship between long-term exposure to neighbourhood-level deprivation and IPV against women in a UK-based cohort.

Method: Data were from 2,126 women enrolled in the Avon Longitudinal Study of Parents and Children who completed an online assessment at Age 21 on their experiences of physical, psychological, or sexual IPV after Age 18. Participants' mothers reported on family-level socioeconomic characteristics at ten time points from baseline (gestation) until children were Age 18, including income and residential instability. Neighbourhood-level deprivation was measured at each time point using the Indices of Multiple Deprivation, which indicate overall deprivation at the Lower Layer Super Output Area (LSOA) level. We used marginal structural models to analyse the association between neighbourhood-level deprivation and IPV over time, which accounted for time-varying

confounding by the socioeconomic indicators and sample attrition.

Results: 25.22% of women reported experiencing any IPV between Ages 18–21. At baseline, 15% of participants lived in the most deprived quintile of neighbourhoods and 26% in the least. Across several model specifications, long-term exposure to more versus less deprived neighbourhoods was associated with increased IPV experiences in early adulthood.

Conclusions: To our knowledge, this is the first study to prospectively investigate the association between long-term exposure to neighbourhood deprivation and IPV against women. Our findings suggest that cross-contextual testing of this association, and the mechanisms that underlie it, should be part of the IPV prevention agenda.

## Rafael Jimenez, Joella Anupol, Elena Gervilla and Albert Sesé

### *Young adults' alcohol-related experiences and their role in the friends group*

Speaker: Joella Anupol

Qualitative studies focused on alcohol use and friendship practices describe that the youth associate drinking with socializing activities. Also, in the group, there is always a friend who is the “carer and protector” (CAP) who takes the responsibility of looking after others within the context of drinking. On the other hand, research on adolescents' alcohol use has studied the role of the group leader's substance use, since their behaviour is mirrored by their peers. Alcohol use (AUDIT: Alcohol Use Disorders Identification Test), drinking motives (DMQ-28: Drinking Motives Questionnaire-Revised), health status (GHQ-28: General Health Questionnaire-28), anxiety (STAI: State-Trait Anxiety Inventory), leadership and personality (NEO-FFI: Neuroticism Extraversion Openness Five-Factor Inventory) were assessed. 24 friendship group discussions were conducted, with a total of 83 participants (67.5% women; M age=21.78; SD=2.897). The topics discussed were: a) alcohol use in adolescents and young people; b) first alcoholic drink consumed; c) first drunk episode; d) alcohol use in public spaces. At the end of the focus group, the participants as a group were asked to solve a hypothetical alcohol-related story. Those who presented risky alcohol use ( $\geq 8$  AUDIT score) had higher scores in the following drinking motives: enhancement (Mann-Whitney U test:  $Z=-2.444$ ;  $p=.015$ ); coping-anxiety (Mann-Whitney U test:  $Z=-2.334$ ;  $p=.02$ ) and coping-depression (Mann-Whitney U test:  $Z=-2.169$ ;  $p=.03$ ). The person designated as CAP by the group presents lower scores in coping-anxiety motives (Mann-Whitney U test:  $Z=-2.085$ ;  $p=.037$ ). On the other hand, leaders' extraversion score is the only statistically significant difference found with non-leaders (Mann-Whitney U test:  $Z=-2.477$ ;  $p=.013$ ). AUDIT score is positively correlated with authoritarian

leadership ( $rs(81)=.235$ ;  $p=.032$ ), participative leadership ( $rs(81)=.235$ ;  $p=.032$ ), social motives ( $rs(81)=.242$ ;  $p=.027$ ), enhancement motives ( $rs(81)=.409$ ;  $p<.001$ ), coping-anxiety motives ( $rs(81)=.285$ ;  $p=.009$ ), coping-depression motives ( $rs(81)=.294$ ;  $p=.007$ ) and openness to experience ( $rs(81)=.305$ ;  $p=.005$ ). Few individual factors explain higher alcohol consumption. Since drinking is a social activity, friendship dynamics should be included in alcohol use prevention.

## Roux Lydie and Cousson-Gélie Florence

### *Active breaks program at school: Development, set up and feasibility*

Speaker: Roux Lydie

The Decimus Lunius Luvenalis' “Mens sana in corpore sano” is finding a second wind with the growing interest in physical activity (PA) effects on health and cognition. PA is known as health factor. Children are recommended to practice at least 60 minutes of moderate to vigorous PA a day to benefit from PA for health. However, in Europe, children don't reach the recommendations. Also, we have to underline that PA and sedentary behaviors are not diametrically opposed: a single person can be physically active and being sedentary (e.g., staying sitting at the desk for more than one hour) and so, being at risk. Fostering PA and struggling sedentary behaviors is a public health priority. More and more papers are interested in the PA-cognition link. PA can foster executive functioning (high level cognitive processes that permit to adapt ourselves to environment constraints) after a single bout of exercise and can foster their development through a regular practice. A little is known about which PA dimensions are to take into account or what is the minimal dose that foster executive functions. However, aerobic exercise and cognitively engaging PA appear to foster PA. As children present less effective executive functioning than children from passed generations and as these functions are linked to success in life, health and future well-being, it is crucial to foster their development in our children. The aim of our study is to design, carry out and conduct a process analysis of an in class PA program that would be able to counteract in class sedentary behavior habits and foster children executive functioning. In order to achieve this aim, we developed and set up a 12 weeks school based program of in class active breaks. 3 classes of French CE2 participate to the study. In this presentation, we will table how we built our program from scientific framework and how we adapted it pedagogically. Then, the process analysis will permit to discuss the program in term of feasibility and interest. As the study is still in process, we are not able to give you results in this abstract.







## FULL PROGRAMME — DAY 2

### Symposium: Special Session (08.00–09.30)

Nick Axford, Vashti Berry, Jenny Lloyd,  
Katrina Wyatt and Tim Hobbs

*Embracing 'failure' in prevention science:  
how can we promote a more open and  
honest response to trial results showing that  
interventions 'don't work' or cause harm?*

Speaker: Nick Axford

In fields such as aviation, learning from failure to achieve desired outcomes is an embedded process intended to optimise performance. In health and social care, by contrast, it is often not clear how learning from failure affects the commissioning of services or research; indeed, there can be a tendency to cover up or explain away such events. We see evidence of this behaviour in prevention science when trial results show no or harmful effects. Examples include not publicising findings, conducting spurious sub-group analyses or attributing the outcome post hoc to real or perceived weaknesses in trial design or execution. This is unhelpful for several reasons, not least that it contributes to research 'waste', undermines respect for science and potentially stifles risk-taking innovation, at best leading to incremental change. This symposium explores common policy and research responses to finding that an intervention is ineffective or harmful, such as dismissing the results, decommissioning the intervention, continuing with the 'failed' intervention in the absence of a better option or because it meets other criteria, and adapting the intervention and testing those adaptations. Some of these responses are illustrated through case study papers on null effect trials in subject areas such as obesity, social-emotional learning and early years support. Each case study paper describes the trial results, what happened next and, as best as can be established, why. The anchor paper suggests that the nature of each stakeholder's response(s) is affected by, inter alia, the nature of the 'failure', how much they have invested in the intervention (financially, psychologically, politically and organisationally), the extent to which they accept the trial findings, the availability (or lack) of alternatives, and whether they buy into the evidence-based practice paradigm. It advances several strategies to promote a more open and honest approach towards trials of interventions that show no or harmful effects. These strategies are categorised as 'pre-empting', 'preparing for', 'acknowledging' and 'responding to' such findings. The main message from the symposium is that the real failure in prevention science is a failure to learn from and act on disappointing results.

### Parallel Session 3 (09.30–11.00)

#### 3.1 Supporting the use of evidence-based prevention in practice and policy

Linda Cambon, Olivier Aromatario and  
Aurélié Affret

*Evaluation of a knowledge transfer scheme to  
improve policy making and practices in health  
promotion and disease prevention setting in  
French regions: a realist study.*

Speaker: Linda Cambon

Evidence-based decision-making and practice are pivotal in public health and offer a way to improve health systems efficiency, credibility, and sustainability. However, barriers related to evidence properties, people, organisations and contexts do persist. To address these major knowledge transfer (KT) issues, we need to rethink how knowledge is produced and used, and examine public health services' ability to integrate research findings into decisions and operations. Our study is a comparative multiple case study that aims to assess a KT scheme in regional health agencies (ARS) and regional non-profit organizations for health education and promotion (IREPS) in four French regions. ARS and IREPS work together to implement prevention and health policies in local contexts. We use a realist evaluation. Realist evaluations examine what works, under what conditions and for whom. They are based on a middle-range (configurational) theory which describes the interactions between outcomes, mechanisms and contexts. The initial middle-range theory we built here considers that the KT scheme combines the following activities: supporting the access to and the adaptation of scientific and usable evidences; strengthening professionals' skills to analyze, adopt and use the evidences for their practices and decision-making process; facilitating the use of evidence in the organizations and processes. This KT scheme was designed for the use of five reviews of systematic reviews related to nutrition, alcohol, tobacco smoking, emotional and sexual life and psychosocial skills. The initial middle-range theory led to the design of four theories of intervention, one for each region, describing the interventions, contexts' parameters, and expected mechanisms and outcomes. This work was conducted in a preliminary 2-day workshop, gathering ARS and IREPS professionals. These theories are currently

applied in the 4 regions and data are collected to identify the contexts/mechanisms/outcomes configurations of an effective KT scheme in local prevention sector. RAMESE II reporting standards for realist evaluations are used. This study will document the parameters of successful KT strategies in specific contexts of preventive health services in France, in order to determine the transferability into other contexts. For the EUSPR conference, we will present the used participative theory-based process of KT strategies mapping.

## Marta Zin-Sędek

### ***Prevention in the local communities - the clash of recommendations with reality***

**Introduction:** Polish legal regulations impose the obligation to provide a local alcohol policy in the form of communal programs for preventing and resolving alcohol-related problems on local governments. One of the most common tasks is to carry out preventive actions addressed to children and adolescents. Systematically conducted monitoring of the activities of local governments allows to follow changes in the approach to preventive interventions (which actions are most often realized, to what extent the population is distributed, what is the level of expenditure on particular impacts), and the dissemination of recommended programs.

**Method:** Data about activities undertaken by local communities in 2015-2017 were analyzed, special attention was given to the latest data from 2017.

**Results:** Over 1/3 of funds spent on local prevention and resolving alcohol-related problems are devoted to preventive activities (about PLN 180-200 million). The most funds are spent on after-school sport activities as well as camps with a preventive program. Only in the third place are preventive programs, but these are authorial programs with unproven effectiveness. Recommended programs with proven effectiveness are financed at the level of several million PLN. In case of dissemination of preventive actions, the largest number of participants is recorded in the case of authorial, non-recommended prevention programs, one-time talks and after-school sport activities (in each of these categories, 800,000 to 1 million people participated). The recommended programs are conducted among about 300,000 participants.

**Conclusions:** Despite the education of decision-makers dealing with local alcohol policy for many years in Poland, forms of preventive interventions of unconfirmed effectiveness are still the most widespread and most popular.

## Anita Munnelly and Gemma Cox

### ***Using Monitoring and Evaluation to bridge the gap between science and practice***

Speaker: Anita Munnelly

Connecting for Life (CfL) is Ireland's National Strategy to Reduce Suicide 2015-2020. It is based on the best available evidence and wide-ranging consultation and engagement processes. The strategy has 69 actions under seven ambitious strategic goals; all focused on the primary and secondary prevention of suicidal behaviour, while addressing a broad range of risk and protective factors. It is a key prevention policy for many government departments including the Department of Justice, Health and Education. The HSE National Office for Suicide Prevention (NOSP) is tasked with (among other things) translating the strategy and evidence behind it into real-world effects. Monitoring and evaluation (M&E) is a new function within the NOSP, established in order to fulfil its strategic commitments, and to drive the top-down (i.e. national) and bottom-up (i.e. local) implementation of the strategy. A key evidence informed suicide prevention strategy, weaved across Connecting for Life, is 'gatekeeper' training. This aims to develop the attitudes, confidence, knowledge and skills in those people who are likely to come into contact with 'at-risk' individuals, and to help them to assess the levels of risk and manage the situation appropriately with referral when necessary. Monitoring and evaluation systems were developed to track and drive the adoption of the suite of training programmes, in the absence of a training plan, and to evidence the (short-term) outcomes. The data systems produce 'usable actionable data' that can help improve the quality of training and its implementation across the country. The current presentation will look at the M&E system that has been developed by the NOSP. It will also look at the challenges encountered, including resistance to data, and the establishment and maintenance of the necessary feedback loops to facilitate data-driven decision making.

## Gregor Burkhart, Klaudia Kepa and Marica Ferri

### ***The challenges of the implementation process – experiences from several European countries with the implementation of substance-use related prevention programmes from an evidence registry***

Speaker: Klaudia Kepa

Manualised prevention programmes are often very structured and standardised interventions, which should be implemented with a limited range of variability in order to maintain the effective components of the programme. This is however difficult in the different European countries with their varying social, organisational and cultural

contexts. Translation of evidence-based principles into daily practice remains a challenge for programmes that have been shown effective in one country and need to be applied in others. Manualised prevention programmes are often very structured and standardised interventions, which should be implemented with a limited range of variability in order to maintain the effective components of the programme. This is however difficult in the different European countries with their varying social, organisational and cultural contexts. Translation of evidence-based principles into daily practice remains a challenge for programmes that have been shown effective in one country and need to be applied in others. For a registry of evidence-based programmes (EBP) in a heterogeneous environment such as Europe it is therefore crucial to collect and analyse practitioners' experiences in adjusting the programme implementations in order to overcome obstacles regarding this process in different contexts. This paper presents the main findings and lessons from the implementation experiences collected from the EMCDDA's registry of EBP, Xchange, which contains 22 EBP. The data were collected from a sample of European programme implementations included in the Xchange registry, and the answers were compared and coded. 29 implementation experiences from 8 of these programmes were available for qualitative analysis (coding, categorisation and comparison), and contain accounts of obstacles (from professionals, organisational and cultural contexts) and how they were overcome or adjusted to. Limitations are that this analysis captures predominantly those experiences that were successful and therefore were recorded in Xchange. System aspects of prevention need to be taken into account when evidence-based interventions ought to be rolled out into differing contexts. Ex-ante awareness of these factors and solution strategies from other colleagues can be helpful for practitioners in being prepared when facing realities of implementation in their contexts.

## Johan Jongbloet

### ***Challenges in use of evidence in development and implementation of an alcohol and drug prevention approach in sports clubs in Flanders***

VAD is a Flemish government's partner organization for the coordination and support of the subsidized prevention support system for alcohol, other drugs, psychoactive medication, gambling and gaming. VAD and regional partners strive to set up sustainable, setting tailored, multi component prevention interventions. Since 2014 VAD invests in sports clubs as a priority setting for alcohol prevention intervention. A preliminary research trial included literature review on risks and good practices in the sports setting, a needs assessment among community sports club decision makers, and focus groups with sports club stakeholders on feasibility of interventions. A three stepped approach was developed, piloted and is

being implemented with train-the-trainer's for regional sports club implementation support and Flemish level advocacy with relevant policy and decision makers. The project team with an external evaluator is also setting up a clustered effectiveness evaluation trial (rct). On the background of the development and implementation of this preventive intervention, the presentation will discuss the limits and difficulties of the use of evidence in terms of (1) the translation of theory in applicable, innovative and appropriate work forms (2) copyright/ownership of existing programs and approaches, (3) thresholds in generating own evidence, (4) the prevention policy guidelines and prevention support system as set by the subsequent governments and (5) increasing prevention system capacity by training prevention deliverers from the setting.

## 3.2 Advances in prevention science methodology

### **Yasemin Kisbu-Sakarya and David P. MacKinnon**

#### ***Estimating Causal Effects in Testing Causal Mechanisms: Problems and Solutions***

Speaker: Yasemin Kisbu-Sakarya

Highly used in prevention research, mediation analysis is the statistical method used to investigate through which mechanisms a program changes the targeted outcome variables. Mediation analysis investigates causal mechanisms. Thus, it involves causal inference by definition. However, most current mediation analysis methods rely on assumptions that may not be satisfied for causal conclusions. If the treatment is randomized in a mediation study, causal claims can be made for the effect of the treatment on the mediator. However, randomizing the treatment will not yield accurate causal direct and indirect estimates unless certain assumptions are satisfied since the mediator status is not randomized. This study reviews the theoretical foundations of causal inference in mediation, describes methods to estimate causal direct and indirect effects, and reports the results of a large simulation study on the performance of the ordinary regression and modern causal mediation analysis methods when there are confounders of the mediator-to-outcome relation. Specifically, five methods are compared in terms of bias, to test how robust the methods are to the violation of the no unmeasured confounders assumption and confounder effect sizes. The methods explored are linear regression with adjustment, inverse propensity weighting, inverse propensity weighting with truncated weights, sequential g-estimation, and a doubly robust sequential g-estimation. Results show that failing to measure potential post-treatment confounder variables in a mediation model leads to biased estimates regardless of the analysis method used. Based on the results of



the simulation study, we recommend and discuss the importance of sensitivity analysis and experimental designs that involve the manipulation of the mediator whenever it is feasible.

## Katrina Wyatt and Jenny Lloyd

***Embracing complexity; methodological and practical considerations for the development and evaluation of programmes which seek to create the conditions for health and reduce health inequalities.***

Speaker: Katrina Wyatt

Poor health clusters in our most economically disadvantaged communities; there is little evidence for behavioural interventions which sustainably affect health behaviours and some programmes inadvertently widen rather than reduce health inequalities. The MRC guidance on the development and evaluation of complex interventions has been used extensively by researchers to develop behaviour change programmes but, for the most part, these are still aimed at targeting individuals or individual behaviours in isolation and the dynamic nature of the system into which it is implemented, ignored.

We will reflect on two programmes, one explicitly developed to prevent obesity in children across the socioeconomic spectrum, implemented in schools and with considerable family engagement (the Healthy Lifestyles Programme, HeLP) and one which was co-created by the police and the young people in an attempt to address high levels of antisocial youth behaviour (the TR14ers). HeLP used intervention mapping and extensive stakeholder involvement to develop an intervention which aimed to affect individual behaviours as well as the school and family environment. The programme was evaluated in a cluster randomised controlled trial involving 32 schools and 1300 children and their families and results showed no effect on objectively measured physical activity behaviours or levels of obesity. The Tr14ers have engaged over 1500 young people in dance in one of the most economically disadvantaged towns in England. The group are peer-led and have been holding weekly dance workshops for over 13 years. Using routinely collected data, outcomes attributed to participation include, reductions in truancy and antisocial youth behaviour, increases in educational attainment and reductions in asthma.

With increasing calls for a complex systems approach to inform public health evidence and practice, ways are also needed for case studies such as the TR14ers to inform programme development; understanding how they engage and sustain participation would support a move away from individual behaviours to health creating environments.

## Antje Kula, Kathrin Krüger, Ulla Walter and Anja Hagen

***Many tools but still a challenge: assessing intervention studies in prevention and health promotion – Study appraisal with ROBINS-I in a systematic review on prevention of adiposity***

Speaker: Antje Kula

For the assessment of intervention studies in (systematic) reviews or meta-analyses different instruments exist like the Cochrane Risk of Bias Tool. In principle, these tools focus on randomised controlled trials (RCT). RCT are considered to be the gold standard design for evaluation studies - what is not questioned here. But given the usual circumstances of intervention studies in the field of prevention or health promotion randomisation at an individual level as well as strict blinding is often not feasible. Therefore the above mentioned tools have a limited applicability in this research setting. Consequently other tools were developed, for example the Risk Of Bias In Non-randomized Studies of Interventions tool (ROBINS-I). In a systematic review on school based adiposity prevention we used the ROBINS-I assessment as a criterion for including studies in the evidence synthesis. Out of 2407 hits at the beginning we assessed 110 studies with ROBINS-I. None of the studies reached the highest rating "low potential of bias". 48 studies were included achieving the second best rating "moderate potential of bias". In this contribution we will give a brief summary of the instrument ROBINS-I, and will discuss its potentials and problems. The analysis of the characteristics of the included and excluded studies shows that the main limitations of the studies were insufficient consideration of confounding and/or lack of information. Nevertheless most of the studies used cluster randomisation. A further challenge was the comparability of the studies which provided a wide range of interventions as well as different follow-up periods. The results may enhance the ongoing process of developing sound study designs in the field of prevention research.

**Emily Warren, Chris Boenll, Elizabeth Allen, Jennifer McGowan, Leonardo Bevilacqua, Farah Jamal, Rosa Legood, Meg Wiggins, Charles Opondo, Anne Mathiot, Jo Sturgess, Adam Fletcher, Zia Sadique, Diana Elbourne, Deborah Christie, Lyndal Bond, Stephen Scott and Russell Viner**

***The importance of fidelity and context in realist RCTs***

Speaker: Emily Warren

Evidence suggests that up to one third of young people in the UK are bullied by the peers. In addition to the increased

risk of substance use, poor mental health, and lower academic attainment, evidence also shows that those who are either perpetrators or victims of bullying suffer greater physical and mental ill-health as adults. Intervening to change the school environment may be an effective strategy to reduce current ill-health and lessen the future burden of disease. INCLUSIVE is a theoretically informed, whole-school, multi-component intervention incorporating social and emotional learning curricula, restorative practices, and convening a student/staff action group to discuss unmet student needs, revise rules and policies, and implement locally relevant actions. It is also one of the first RCT to be evaluated using a realist ontology. An early question about whether or not an intervention improves health is determining whether or not the intervention was actually done. Fidelity of form and function will be explored to understand whether sufficient intervention activities were carried out to trigger mechanisms of action and what contextual features appear to effect this. Later analyses for this study will include developing and refining a priori hypotheses based on qualitative data and conducting moderator and mediator analyses to test the theory of change. Markham and Aveyard's theory of human functioning and pedagogic practice, upon which INCLUSIVE is based, will then be revised and issues around the feasibility and philosophical congruence of realist RCTs will be explored.

**Laura Hill, Brittany Cooper and Louise Parker**

***Qualitative Comparative Analysis: A Mixed-Method Tool for Complex Implementation Questions***

Speaker: Laura Hill

Translation and scale-up of evidence-based prevention programs requires understanding of a complex interplay of policies, interventions, and processes. Qualitative Comparative Analysis (QCA) is a mixed-method analytic approach that is well-suited to accommodating causal complexity even with small numbers of cases. QCA allows researchers to examine combinations of program components in order to determine what conditions (alone or in combination with others) are necessary or sufficient to produce an outcome. Based on Boolean logic and set theory, QCA has the capacity to identify multiple causal pathways to an outcome. Unlike probabilistic methods, it focuses on the relationships between and among conditions rather than examining the independent, additive influence of variables on an outcome. The primary aim of the proposed presentation is to introduce QCA to prevention scientists and to illustrate its use in translational research. The Strengthening Families Program for Parents and Adolescents 10-14 (SFP) has been studied in RCTs and pragmatic trials but not in a natural dissemination. We applied QCA to programs from

a multi-year dissemination of SFP to determine which combinations of components at the implementation, program delivery, and participant levels produced desired outcomes.

Our results demonstrated that a specific configuration of conditions (sufficient proportion of trained practitioners, program size not greater than recommended, and highly engaged participants) were necessary for program success. Given those necessary conditions, there were also two sets of sufficient conditions. The first was having practitioners who submitted high-quality data in programs with least eight families. In other words, those two conditions were all that were needed for a program to be successful, as long as that program also had the three necessary conditions, and when they were present, other conditions (holding an orientation night and maintaining high program fidelity) could be either present or absent without affecting the outcome. The second set of sufficient conditions was holding an orientation night, having practitioners who submitted high-quality data, and not having high fidelity. Qualitative data also showed that adaptations might have had positive effects by adjusting for language barriers and participant culture. We will discuss both QCA methodology and implications of these findings.

### **3.3 Focus on population approaches in prevention**

**Cristiano Piccinelli, Nereo Segnan and Oscar Bertetto**

***A new revolutionary drug based on prevention: "Prevenill". The European Code Against Cancer and the Network for Prevention.***

Speaker: Cristiano Piccinelli

The Italian Network for Prevention supported by Center for Cancer Prevention of Piedmont and by the Oncology Network of Piedmont and Valle d'Aosta, aims at promoting the 12 recommendations of the European Code Against Cancer (ECAC). The European Code Against Cancer is an initiative of the European Commission to inform people about actions they can take for themselves or their families to reduce their risk of cancer. It has been estimated that almost half of all deaths due to cancer in Europe could be avoided if everyone followed the 12 recommendations. In formulating the recommendations, different multidisciplinary groups of experts over a two-year period, took into account the latest scientific evidence available. The Network for Prevention establishes an alliance between: public authorities, foundations, non-governmental organisations, municipalities, etc, on cancer prevention. This initiative represents a call to action and an advocacy tool to offer all partners the

opportunity to support and promote prevention programs and interventions consistent with the 12 points of the European Code against Cancer. A regional media campaign it has been realized and various local initiatives were planned by the single organization in order to facilitate the dissemination of ECAC. All partners they have co-financed the project of the dissemination campaign.

## Ullrich Böttinger and Katharina Rauh

### *Embedding health promotional organisational development in educational institutions into a communal and multi-disciplinary prevention network*

Speaker: Ullrich Böttinger

Background: Funded by the German Federal Ministry of Education and Research, the project aims to promote the physical and psychological well-being and social inclusion of children between 3 and 10 years and their families in the Ortenau district by a two-track strategy: (1) prevention agents are building communal networks of stakeholders from the health, youth welfare and educational system, paying special attention to bridging system borders, (2) 18 month long organisational development processes with specially trained coaches in 30 ECEC institutions and 20 primary schools are implemented, based on an adaptive curriculum of prevention and health promotion, as educational institutions are playing a vital role when gaining access to children and their families.

Methods: A comprehensive mixed methods research design to evaluate the different outcomes is applied, including (1) qualitative interview data from community prevention agents, stakeholders, pedagogic professionals and at-risk families, (2) quantitative data on health promotion network development and communal needs assessment, and (3) a waiting-list control group design with mixed methods in ECEC institutions.

Findings: First interim analysis from the prevention network and strategy development show substantial new co-operations and the formation of multidisciplinary networks within the district. The waiting-list control group evaluation in ECEC institution show significantly higher self-reported competence levels of professionals in the pre-post-analysis (n=122) of the treatment group and also significantly higher in comparison with the waiting list control group (n=53), as well as significant pre-post-effects in the children (n=204) in the treatment group concerning self-rated self-concept and resilience and teacher-rated psychological well-being (n=221).

Discussion: The first results show positive effects of the health promotion strategy on the communal and institutional level. Especially the combination of health promotion organisational development in educational institutions backed up by a multi-professional network

across system borders seems to be an effective measure to promote children's health and has thus been transferred into regular public health care provision.

## Wadih Maalouf, Virginia Molgaard, Leland Molgaard, Rachel Calam, Heeyoung Park and Aala El-Khani

### *A multi-level parenting resource delivery model for families that have experienced armed conflict and displacement*

Speaker: Wadih Maalouf

Parental support and monitoring are strong modifiable predictors of children's psychological wellbeing in conflict and displacement settings. The provision of support to parents increases children's resilience and promote positive developmental trajectories and long-term health. The need for a public health set of evidence-based family skills interventions is recognised in reducing engagement in risky behaviours and promote positive mental health. Accordingly and in line with the International Standards on Drug Use prevention, the United Nations Office on Drug and Crime (UNODC) recently geared its experience in piloting family skills programmes to target families living in challenged settings. This presentation will overview the development of this multi-level parenting model that aims at availing to families (especially refugees), four key open-access interventions ranging from simple to in-depth training. The first intervention is built on collaboration with the University of Manchester and is a self-read leaflet piloted on 3000 Syrian families living in a conflict zone. The second resource is an interactive booklet and linked two hour seminar, piloted on 120 families in Nablus, Palestine. The third, developed by the UNODC, is the Strong Families programme, an open sourced, brief family skills intervention, for vulnerable populations in low resource settings consisting of 3 sessions for caregivers and their children. It was initially piloted in Afghanistan, but has now been piloted in Serbia with refugees stranded in transit. . The forth resource is a brief "Plus Parenting" programme for an existing intervention for children showing traumatic stress, Teaching Recovery Techniques (TRT+Parenting), evaluated in Turkey and piloted through a 3 arm RCT in Lebanon with Syrian refugees.

These interventions will be presented briefly together with preliminary results from their pilots. These resources offer brief, integrated support for families in humanitarian and low resource settings, enabling integrated, coherent information to be disseminated depending on local resources/needs. This aligns with international humanitarian principles and approaches to strengthening families by agencies in low resource settings worldwide.



## Harry de Koning and Eveline Heijnsdijk

### ***A well-organised pilot program of PSA testing: benefits at less harms and cost-saving***

Speaker: Harry de Koning

Prostate cancer (PC) is the most frequent cancer in men, and 20% of men have metastases at diagnosis. The ERSPC-trial has shown that PSA testing is effective in reducing PC mortality by 27%, needing about 800 screens to prevent one death. Recently, it has been shown that the smaller PLCO-trial in US, adjusted for protocol and setting, confirms such an effect. Harms for men involved are however substantial: QALYS are being lost in the population when the upper age limit exceeds 63 years of age, but at the same time opportunistic screening at those higher ages is increasing. We investigated 68 different possible screen scenarios, and found that only 3 biennial screens at ages 55, 57 and 59 (and stop thereafter) would be a cost-effective program (22,000 euro/QALY gained) leading to 250 prevented deaths per year in NL, with limited overdiagnosis. We propose to start a regional pilot amongst 12,000 men aged 55-59 inviting for a PSA test. Appr. 10% would need a referral, but with a risk calculator and MRI 30% of biopsies and low grade disease can be prevented from being done/detected. Men with PSA levels under 1 ng/ml do not need re-testing. We will investigate attendance, informed choice, appropriate information, Active Surveillance and opportunistic screening (also after age 59). The Health Council of the Netherlands is presently reviewing the proposed study. This study shows the time line, research and solutions of going from evidence to practice (against all odds). A wise preventive program is possible and needed to be implemented, with some important remaining questions.

## Romain Guignard, Anne Pasquereau, Raphaël Andler, Jean-Baptiste Richard, Olivier Smadja, Pierre Arwidson and Viêt Nguyen-Thanh

### ***Effectiveness of Mois sans tabac, a French national and regional campaign against smoking***

Speaker: Romain Guignard

Background: In October 2016, Santé publique France, the national public health agency, launched a national mass-media campaign aiming at triggering quit attempts among smokers: "Mois sans tabac", inspired by the English 'Stoptober'. This campaign sets smokers the objective of being smokefree for one month, in November. About 180,000 smokers registered on a dedicated website and were proposed various cessation helps (quitline, interactive mobile phone-based coaching, self-help kit). About 2,000 local events were organized to raise public awareness.

Methods: The effectiveness evaluation is based on a specific analysis of the 2017 Health Barometer, a random survey representative of the population living in metropolitan France conducted between January and July 2017 on a sample of 25,319 individuals aged 18-75 years-old. Multivariate regressions will allow testing the association between exposure to the campaign and quit attempts in the last quarter of 2016. This time period enables to take into account potential postponement of smokers' quit attempts initially scheduled in October and anticipation of other ones scheduled in December.

Results: Nearly one in six daily smokers (15.9%) report making a 24-hour quit attempt in the last quarter of 2016, and 18.4% of them report that it was related to Mois Sans Tabac, which represents approximately 380,000 quit attempts related to the operation. About half of the individuals who made a quit attempt in the last quarter of 2016 used external assistance (47.7%), more among those reporting that this was linked to Mois Sans Tabac (67.1%). These initial results will be completed by an analysis based on the level of exposure to the campaign.

Conclusion: First results show that the first edition of Mois sans tabac was successful in triggering quit attempts among smokers.

## 3.4 Diet and physical health

### **Nathan Luz de Beltrand, Jane Lopes, Debora Massarante, Adriana Simonsen, Rebecca Kapitansky and Marina Ramos Da Rocha Paes**

#### ***Implementation and qualification of preventive programs and production of evidence: an integrating approach of systemic variables and epidemiological data***

Speaker: Nathan Luz de Beltrand

Evidence-based prevention programs have been implemented and evaluated in different contexts and cultures resulting in improvements in quality of health interventions. At the same time, results and evidences are often interpreted in isolation, with little consideration of social, cultural, and context realities as well as cultural and systemic phenomena. There is even a opposition between the understanding of social and systemic problems and punctual actions and measures focused on the effect on individuals. This study relates data and experience in Brazilian health and education system and aims to understand such detachment and to point out relations between qualification of an intervention, evaluations and epidemiology but also observe the system of relations that receive interventions.

In Brazil prevention technology has been implemented on a large scale since 2013 with 3 school and community-

based programs (Brazilian versions of Unplugged, GBG, and Strengthening Families), as public policy through the Ministry of Health and Justice, including studies as the first RCT on the #Tamojuntó (Unplugged version) program, among others various analyses and researches.

Based on these experiences, can be evidenced relationships between health and education network management data with epidemiological - what therefore can contribute to public policies as well as qualification of prevention practices. One example is that data from RCTs indicates that one of the prevention programs had mixed results with increased alcohol experimentation, (use in the year and use in life) and protection on use of inhalants and also protection for receiving bullying. On the other hand, teachers, students, practitioners and policy makers and other researchers observed strong adhesion to the program, although demand and dissemination limited by the training capacity of the federal government.

The intersection of this information with other social variables is what makes the political decision very complex. Preventive actions may play a role in replacing highly iatrogenic or combat practices (with no theory bases or efficiency studies) so it is necessary to have this broad vision to reconcile management decisions with improvement of programs beyond to consider serious social crises, associated with crime, urban violence as relevant phenomena and that impact prevention practices.

**Ulrike Siewert-Markus, Sabina Ulbricht, Lisa Voigt, Antje Ullrich, Sophie Baumann, Marcus Dörr, Ulrich John and Jennis Freyer-Adam**

### ***Effects of an intensity level video demonstration on self-reported physical activity***

Speaker: Ulrike Siewert-Markus

Background: In questionnaires, respondents tend to report more time spent in higher intensity physical activity (PA) than what is directly measured (e.g. by accelerometer). The aim of this study was to test whether a video demonstration of different PA intensities can reduce over-reporting of PA.

Methods: Using a tablet PC-supported survey among inpatients on cardiology wards in 2016, participants were randomly assigned to either a "video group" or a "no video group". Both groups answered the International Physical Activity Questionnaire-Short Form. Before that, the "video group" received a 3-minute video demonstration, whereas the "no video group" did not. The effect of the video on the reported minutes per week (min/week) of PA and moderator effects of sex, age, and school education were investigated using zero-inflated negative binomial models

(vigorous and moderate PA) or negative binomial models (walking).

Results: In the total sample (N = 353, mean age = 62.6 years, 65.4% male), there was no effect of the video demonstration on any PA outcome concerning whether or not any activity was reported and concerning min/week of PA. When any vigorous PA was reported, women in the "video group" reported less min/week of vigorous activity than women in the "no video group" (Incidence Rate Ratio [IRR] 0.46, 95%-Confidence Interval [95% CI] 0.25 to 0.86,  $p=0.02$ ). Men in the "video group" reported more min/week of walking than men in the "no video group" (IRR 1.83, 95% CI 1.29 to 2.59,  $p=0.001$ ). Age in men and school education in women were found to be significant moderators of the video effect.

Discussion: The video demonstration reduced self-reported PA only in certain subgroups. Further research should identify the effects of intensity level video demonstrations on the concordance of self-reported and directly measured PA and moderating effects of video and recipients' characteristics.

**Ludwig Grillich, Gerald Gartlehner and Isolde Sommer**

### ***Implementing the GRADE Evidence to Decision (EtD) framework to answer a broad public health question: Challenges and solutions.***

Speaker: Ludwig Grillich

Despite major investments in both research and policy over the past 25 years, evidence-informed practice still has room for significant improvements in many areas of healthcare and prevention (Djulbegovic & Guyatt, 2017, Rutter et al., 2017). One reason is the lack of evidence concerning what works for whom in which circumstances. Another equally relevant reason is the failure to use existing evidence in practice. As evidence-informed practice requires integration of the best available knowledge into the decision-making process, the design of this process is critical for its success. To facilitate evidence-informed decision-making for clinical practice guidelines, the GRADE (Grading of Recommendations Assessment, Development and Evaluation) Working Group has developed the EtD framework (<http://www.decide-collaboration.eu>) (Alonso-Coello et al., 2016).

In this presentation, we will report the challenges of and solutions for implementing the GRADE EtD framework to answer the question, whether or not lifestyle intervention programs for obese children/adolescents should be implemented in Lower Austria.

The main challenges were as follows: 1. To get the representatives of all relevant interest groups (funder, practitioners, children, parents, scientific experts) to agree on a manageable selection of outcomes based on which

the decision should be made; 2. To match the above outcomes - partly formulated in colloquial language – with key/MeSH terms for literature search; 3. A lack of evidence for half of the criteria based on which the decision should be made; 4. The heterogeneity of outcome measures reported in the literature. Among other solutions that will be explained in the presentation, we had to adapt the GRADE system for rating the quality of the evidence.

When limited public resources are used and the health of the population is at stake, it should be an ethical imperative to inform decisions with the best available evidence. The GRADE EtD framework enables an evidence-informed practice through transparent and comprehensible recommendations based on the best available evidence. Even though its implementation requires considerable time and resources, those are usually outweighed by its benefits.

**Jemma Hawkins, Michelle Edwards, Linda McConnon, Britt Hallingberg, Mark Kelson, Emily Oliver, Joanna Charles, Rhiannon Tudor Edwards, Simon Murphy, Sharon Simpson, Russ Jago, Kelly Morgan and Graham Moore**

***Exploring the acceptability and feasibility of using activity monitoring devices to support physical activity within an exercise referral scheme for adults with, or at risk of, a chronic health condition.***

Speaker: Jemma Hawkins

**Introduction:** Whilst there is evidence for initial effectiveness of exercise referral schemes for increasing physical activity, evidence of long-term effects is limited. In Wales, a trial of the National Exercise Referral Scheme [NERS] showed small but significant impacts on physical activity at 12-month follow-up. Technologies such as wearable activity monitoring devices may enhance long-term maintenance of activity by facilitating goal setting and progress monitoring and supporting intrinsic motivation. This pilot trial explored the acceptability and feasibility of implementing accelerometry-based activity monitors within NERS.

**Methods:** A pilot randomised controlled trial with embedded process evaluation and economic evaluation was conducted. New NERS participants (mean age=57, 65% female) were randomised to receive either an activity monitor alongside NERS (n=88) or NERS usual practice (n=68) and completed questionnaires at baseline, 16-weeks and 52-weeks. Twenty intervention participants and 12 NERS staff members completed interviews at 4-weeks and 52-weeks.

**Results:** Findings suggest that participant experiences of utilising the activity monitors were mixed. Approximately half of participants reported that the devices were easy to

use (49%) and met their expectations (57%). In interviews, some participants reported that the monitors helped them to become more aware of their physical activity levels and increased their motivation. Barriers to acceptability included general and device-specific wearability and technological problems, such as device malfunctioning and computer compatibility issues. Staff also reported device- and context-specific technological barriers to implementing the monitors alongside usual practice.

**Conclusion:** The researchers have worked closely with NERS stakeholders including the funders and national coordinating staff to ensure that the findings are used to inform future use of the activity monitors within the scheme. Whilst some findings were device-specific, there are broader lessons for future research and practice which incorporates activity monitoring devices into physical activity interventions including implications for delivery staff time and training.

**Linda Cambon, Olivier Aromatario and Aurélie Affret**

***Using theory of change to develop an intervention theory for designing and evaluating behavior change SDApps for healthy eating and physical exercise: THE OCAPREV PROJECT***

Speaker: Olivier Aromatario

Connected health devices and applications (SD Apps) are being portrayed as a new way for prevention, with the promise of accessibility, effectiveness and personalization. Many effectiveness evaluations (experimental designs) with a strong internal validity exist. While effectiveness does appear to vary, the mechanisms used by these devices have not yet been thoroughly investigated. Our OCAPREV research seeks to unpack this black box. Thus, we propose to describe the elaboration process of an intervention theory for healthy eating and physical activity SDApps. It includes a set of vigilance criteria to comply with when addressing possible impacts on social health inequalities. To build this theory, we drew on theory-driven approaches and in particular on the theory of change (ToC). For this, we developed a cumulative and iterative process combining scientific data from literature, and knowledge from experts (researchers and practitioners) and from patients or users. It was a 3-step process as follows: 1 - identifying the evidence base; 2 - developing theory through design intervention and creating realistic expectations, including in our case specific work on social health inequalities (SHIs); 3 - modeling process and outcome. We were thus able to produce an evidence-based theory according to the ToC model, based on scientific evidence and experts and users expertise. It sets out a causal pathway leveraging 11 key mechanisms - theoretical domains - with which 50 behavior change techniques can be used towards 3 ultimate goals (COM-B).



Furthermore, the theory specifically addresses SHI criteria. This theory is an aid to SDApp design and evaluation and it allows health inequalities to be fully considered. Firstly it enables developers to adopt a more over-arching and thorough approach to supporting behavior change, and secondly it encourages comprehensive and contributive evaluations of existing SDApps. Lastly, it allows health inequalities to be fully considered.

## 3.5 Risk and resilience

**Rebecca Meiksin, Elizabeth Allen, Matthew Dodd, Joanna Sturgess, Joanna Crichton, Gemma Morgan, Rona Campbell and Chris Bonell**

*Refining and testing measures of dating and relationship violence (DRV) among adolescents in England: Cognitive interview and baseline findings from the Project Respect DRV prevention programme*

Speaker: Rebecca Meiksin

Dating and relationship violence (DRV) – intimate partner violence among adolescents – is associated with a range of negative health outcomes including HIV and other STIs, substance use and suicidality. Though recognised and researched more extensively in the US, DRV is a rapidly emerging area of public health research and practice in the UK. Existing UK prevalence estimates vary by sampling frame and method of measurement. Available evidence suggests DRV is widespread in the UK, with 22% of girls reporting physical DRV and 27% of boys and 48% of girls reporting emotional DRV. Evidence on whether DRV is patterned by socioeconomic status or ethnicity is mixed.

Two established measures of DRV in the US, the Safe Dates (SD) and short Conflict in Adolescent Dating Relationships Inventory (CADRI-s), have not been used before in the UK. As part of Project Respect, a pilot cluster RCT of a DRV prevention programme in England, we adapted and refined these measures for use with adolescents in England and then piloted the refined measures.

After adapting the measures to incorporate controlling behaviours (CADRI-s) and online behaviours (both CADRI-s and SD), we tested the adapted measures in cognitive interviews with 15 secondary school students aged 12-15 in England. The measures were refined based on these findings and then piloted in a self-complete baseline survey with 1,429 students aged 12-14 in five secondary schools taking part in Project Respect.

We will present the refinements to the SD and CADRI-s indicated by cognitive interviewing to optimise the measures for use with adolescents in England. We will

present findings from the baseline survey including estimates of prevalence of DRV victimisation and perpetration among girls and boys, and we will explore associations between DRV victimisation and perpetration and other factors. We will discuss how these findings build on the nascent DRV evidence base in the UK.

**Sungano Chigogora, Anna Pearce, Catherine Law, Russell Viner and Steven Hope**

*Could population prevalence and socio-economic inequalities in children's mental health problems be reduced by increasing physical activity? A policy simulation in the UK Millennium Cohort Study (MCS)*

Speaker: Sungano Chigogora

Introduction: Greater moderate-to-vigorous physical activity (MVPA) is associated with lower risk of internalising child mental health problems (CMHP) such as depression and anxiety. The population impact of increasing MVPA on prevalence and inequalities in CMHP is unknown. Therefore, we simulated universal achievement of the UK government's target of 60 minutes (m) MVPA per day in the Millennium Cohort Study (~18 000 children born 2000-2).

Methods: Of 6,497 children with MVPA data (accelerometer) at 7 years(y), 5,369 had data for the outcome (CMHP [parent-reported Strengths and Difficulties Questionnaire (SDQ) 11y), exposure (income quintiles, 5y) and confounders. Predicted probabilities of CMHP were estimated in logistic marginal structural models, weighted for attrition, baseline and intermediate confounding. Inequalities were risk ratios (RRs) and differences (RDs) [95% CIs]. Intervention was simulated by re-estimating predicted probabilities after modifying MVPA.

Results: 49% achieved the 60m MVPA target, with greater activity levels observed at lowest income (average 65 min/ day). Intervention simulation (30m average increase for all children), led to 96% achievement of the 60m MVPA target. While not significant according to traditional thresholds, prevalence of internalising CMHP decreased after intervention from 9.3% (95% CI: 7.9, 10.7), to 9.0% (95% CI: 6.7, 11.2). Comparing children in lowest income families to those in the highest quintile, increasing MVPA did not reduce relative risk of internalising CMHP (1.86), but may reduce absolute inequalities (RD; 5.86 [1.06, 10.65] before, and 5.65 [0.96, 10.34] after intervention). Sensitivity analyses using teacher-reported SDQ showed similar results.

Discussion: Using causal methods to simulate a policy-based intervention at population level, our findings imply that universal achievement of the UK national MVPA

target for children may reduce population prevalence and absolute inequalities in internalising CMHP. Caution is indicated when applying present findings to externalising CMHP comprising hyperactivity and conduct problems, whose features may characterise MVPA.

## **Stephen Kulis, Flavio Marsiglia, Cristina Villalba, David Alarcón Rubio and Isotta McFadden**

### ***Traditional Gender Roles and Gender Convergence in Substance Use among Spanish Adolescents***

Speaker: Stephen Kulis

**Purpose:** The rapidly closing gender gap in substance use observed in many societies is often attributed to declining conformity to traditional gender roles (TGRs). Socialization into TGRs has been viewed as promoting male substance use but discouraging it among females. This study investigated TGRs as predictors of narrowing gender differences in substance use among Spanish adolescents.

**Methods:** We collected questionnaire data from students in four public secondary schools in low income Seville neighborhoods (n=259, Mage=14.7, 51% female). Outcomes included recent and lifetime frequency of alcohol, tobacco, inhalant and marijuana use, recent binge drinking and drunkenness. A 5-item TGRs scale assessed endorsement of a polarized gender division of family labor and power (Cronbach's alpha=.75). Controlling for age and SES, separate regression analyses by gender and gender interaction models tested whether TGRs predicted outcomes differently for males and females.

**Results:** Except for marijuana, where males used more frequently than females (and the difference persisted after controlling for TGRs), there were no gender differences in any of the other substance use outcomes. Conformity to TGRs predicted greater use of all four substances, but in substance-specific and gendered patterns. For females, TGRs predicted only greater overall use of alcohol and tobacco. For males, but not females, TGRs predicted more binge drinking and drunkenness, and more use of marijuana and inhalants.

**Discussion and Implications:** Results for males are consistent with arguments that polarized gender role expectations for men increase male adolescents' behavioral risk-taking. For females, TGRs did not provide protection from substance use, but instead, were associated with increased use of licit substances. Results may reflect persisting TGRs in the family, conflicting gender role messages for females, and gender segregation in exposure to substance offers and opportunities. Implications for prevention include the need to design interventions that recognize shifting TGR norms, provide

decision-making alternatives to those promoted by TGRs, and help youth navigate gendered behavioral expectations.

## **Brenda A Miller, Hilary Byrnes, Mark Johnson, Dave Buller, Joel Grube, Julia Berteletti and Veronica Rogers**

### ***Influences of Personal Characteristics on Group-based Club Intervention Outcomes***

Speaker: Brenda A Miller

This study (funded by National Institutes of Health, R01AA022331) of nightclub patrons and their social drinking groups, tests an intervention, Nightlife Safety Plans (NSP), designed to reduce escalation of overuse of alcohol/drugs, physical aggression, and sexual aggression during an evening at the club. NSP relies on social groups that arrive at the club together, to identify early signs of problems and to take actions to intercede called the Three O's: Outreach, Options, and Out. Data analyzed in this presentation consists of 352 groups (961 participants) gathered over 41 nights (Friday and Saturday) at 7 different clubs. Data from online surveys, alcohol breath tests, and biological drug tests (post-test only) were gathered at entrance and exit for pre- and post-test assessments of the intervention effects. Biological measures reveal at least one club patron per group was legally intoxicated (Breath Alcohol Concentration—BAC, >.08%) in 60% of groups and at least one patron was positive for drugs in 50% of the groups. Further, at least one club patron per group experienced physical and/or sexual aggression within 40% of groups. Results indicated that experimental groups were significantly more likely to intervene with group members, using a significantly higher number of intervention strategies (i.e., the 3 O's), to assess situations for physical aggression and sexual harassment, and to respond to friends experiencing sexual harassment. Further experimental groups used significantly more protective strategies to keep group members safe and discourage their friends from alcohol overuse and drug use. Reduced levels of alcohol use and intoxication or impairment (BAC > .05), as assessed by breath tests, were found among the groups in the experimental as compared to the control condition. In this presentation, moderating influences of personal characteristics (e.g., age, gender, sexual minority status) on outcomes are examined. Groups provide an opportunity to deliver and implement peer-focused safety strategies to enhance safety during the time spent in the club. Our focus on clubs also reaches young adults who are working (two-thirds not in college), an underserved population.

## Andrea Ruybel and William Crano

### *Parental Influences on Adolescent Major Depressive Symptoms and Marijuana Use*

Speaker: William Crano

With its medicalization, legalization, and decriminalization in many U.S. states rendering marijuana more accessible, researchers and policy makers have become increasingly concerned with the its effects on adolescents. This concern is motivated by research that indicates a substantial relation between teen depression and subsequent marijuana use. The relation of parental monitoring and warmth with adolescent depression and marijuana use may reveal a previously unexamined factor that may facilitate understanding, influencing, and supporting adolescents during this critical developmental phase. Our research examines direct and indirect relations between parental influence, youth depression, and marijuana use, which may enable deeper understanding of the genesis and effects of adolescent depression, and facilitate positive adolescent development through prevention of psychotropic substance use. A path analytic approach ( $N = 12,115$ ) on data from a representative U.S. sample indicated depressive symptoms had an indirect effect on the relationship between parental warmth ( $p < .001$ ), monitoring ( $p = .01$ ), and adolescent marijuana use. Depressive symptoms had significant indirect effects on parental warmth and marijuana use (both  $p < .001$ ), and on parental monitoring and marijuana use (both  $p < .05$ ). Exploring relationships grouped by respondents' age (12-14 and 15-17 years, respectively) revealed only minor differences. Understanding the role of parental influences in marijuana use among adolescents with depressive symptoms may lead to important developments in prevention and treatment.

## Plenary Session 3 (11.30–13.00)

### Prof Harry Rutter

#### *Chess, not chequers*

The prevalence of chronic diseases is increasing, inequalities are widening, and the resources to respond are ever more constrained.

There are no simple answers to any of this, but an important part of the problem may lie in the ways in which we conceptualise these challenges, grounded in traditional models of cause and effect. Reconceptualising these complex problems in ways that truly take account of their complexity allows us to generate different and more relevant kinds of evidence, construct more meaningful practical and policy responses, and evaluate those responses in more appropriate ways. This talk will explore these themes, and propose ways in which they might be achieved.



## Poster Session 2 (13.00–14.30)

### Poster 2.1

Chris Ringwalt

#### *Alcohol Availability, Use, and Harms Among Adolescents in Three Northeastern Mexican Cities*

Despite efforts to restrict its access, alcohol remains readily available to youth in most countries. However, little is known about how alcohol use and related harms among youth in developing countries are related to alcohol availability. This study examined the associations between the perceived and actual availability of alcohol and alcohol use, heavy episodic drinking, and alcohol-related harms in a sample of 594 12- to 17-year-old students in central Mexico. Overall, 59% (n=350) of the students reported past-year drinking; 57% of these students reported past-30-day alcohol use, 34% reported heavy episodic drinking in the past 30 days, and 55% reported experiencing at least one alcohol-related harm in the past year. Youth who purchased alcohol at off-premise establishments were consistently more likely to engage in past-30-day alcohol use and heavy episodic drinking and to have experienced alcohol-related harms in the past year. Perceived alcohol availability was positively related to past-30-day alcohol use and harms. Drinking at on-premise establishments was also positively associated with alcohol-related harms. Preventive efforts in Mexico to reduce the availability of alcohol at both on- and off-premise establishments are imperative.

### Poster 2.2

Fran Calvo and Carles Mundet

#### *Injecting cocaine and heroin users own smartphone too: Let's provide them with ICT tools for reduce harms associated with drug consumption!*

Speaker: Fran Calvo

Introduction: Persons who inject drugs, including individuals experiencing extreme social exclusion situations like homelessness, use information and communication technologies. Literature review concludes they can to beneficiate of eHealth, and mHealth proposals like general population.

Objective: The objective of this proposal is to plan and develop the way to incorporate web or mobile tools to persons who inject drugs (PWID) of the harm reductions

programs of the Mental Health and Addiction Network of Girona (Catalonia).

Method — Actions until today: We analysed the scientific literature during 2015 and 2017 and a systematic review about how PWID use ICT was performed. We analysed the potentiality of the context (city of Girona) to apply ICT programs and tools. We studied how PWID and homeless used mobile phones and social network sites and if could be possible that they will use ICT resources. We decided to design and develop the first needle exchange points finder of Europe. It's a web-app for mobile devices. Besides being a geolocation of services the app allows PWID to comment the experience of use anonymously (like a social network site).

Develop contained some phases: 1. Usability tests. We conducted 3 usability tests with professionals and PWID during February and March of 2018. 2. Improving. We apply the upgrades resulting of the usability test. Capacitation and diffusion: We trained college students and they broadcast to PWID.

Future actions: Pilot use of the web-app will starts on April and for 6 months. Qualitative and quantitative evaluation plans will be perform.

Conclusion: Professionals and users refers this web-app will be useful to improve the access to injection materials and to increase the participation of PWID in the community. It's expected that this web-app diversify the patterns of distribution of needles and improve the experience and participation of PWID.

### Poster 2.3

Flora Lorenzo, Aline Aveiro, Aline Godoy, Darlene Cardoso, Débora Pereira, Lorena Alves and Regina Tibúrcio

#### *Elos Program Transfer to States and Municipalities: Technology Development on Child Prevention Inspired on Good Behavior Game*

Speaker: Flora Lorenzo

Due to low dissemination of effective Brazilian practices in prevention of harmful drug use, since 2013 the Mental Health Department of the Ministry of Health develops Elos Program for municipalities and states. It was based on Good Behavior Game from a partnership with the American Institutes for Research and United Nations Office on Drugs and Crime. Scale it up as a public policy requires Policy Transfer to local Health and Education networks with strategies that ensure autonomous implementation and adherence to GBG core elements which subsidizes its effectiveness in reducing 2.7 times the risk of harmful use of substances. Procedures involved (a) content

development for coaches training and guide; (b) provision of training for 121 coaches from health and educational services from eight cities in four federal states, 53 of which were Pedagogical Coordinators with high responsibilities within schools; (c) complements of teacher's training, including: organization of Implementation Guide in 18 steps, additional activities about core elements and social determinants of health; (d) provision of training and support for 236 teachers; and (e) designing a Family Component to extend protection factors to other contexts. Elos technology transfer design reached 6.236 students from 1st to 5th grades from 59 schools in 2016-2017. Concerning educators perception, 80% of respondents to monitoring system indicated that children became more cooperative, 64% described a decrease in physical and verbal aggression and 88% reported improvements in classroom management. Also most of educators (68%) evaluated local coaches support as crucial for the program success. Professionals perceptions are aligned with what is considered nurturing features in educational institutions, which are important protection factors during child development. It is necessary to improve, however, the use of fidelity tools by local professionals and the use of monitoring systems, essential strategies to guarantee program's quality in a national range scale.

## Poster 2.4

**Nathan Luz de Beltrand, Jane Lopes, Debora Massarante, Adriana Simonsen, Rebecca Kapitansky and Marina Ramos Da Rocha Paes**

### ***Normative beliefs of teachers and health professionals implementing prevention programs***

Speaker: Nathan Luz de Beltrand

Introduction: Normative beliefs have been studied in different contexts, especially in peer influence, school environment, drawing parallels with behaviors such as substance use, violence, and bullying among other response patterns. This study intends to observe moderation of normative beliefs in professionals of a prevention program and investigate possible impacts on preventive interventions.

Method: Data were collected on perception of prevention professionals (teachers and health professionals) of #Tamojunto, adapted version of Unplugged in Brasil, through individual estimate, and later groups average regarding the prevalence of substance use patterns of one-time use in life, one-time use in last month, and 6 or more times use in last month, of alcohol, tobacco, marijuana and inhalants by adolescents from sixth grade to middle school, and later compared with national epidemiological data on substance use (Cebriid, 2010).

Results: Data indicate a large difference between professional's beliefs about substance use in relation to national research. The prevalence in Cebriid research was lower than the perception of professionals in all patterns of use, ranging from 59 times smaller (in the case of frequent use of Marijuana) to a relatively close percentage in alcohol use pattern (difference of only 10% or 1.18 times higher than the research indicator).

Conclusion: It was verified approximation in responses of groups and individuals, and great difference with research data (more evident in Marijuana, Inhalants and Tobacco). Questions and subsequent research may investigate determinants involved in such pattern. Normative beliefs can be a determinant variable of the quality of prevention, and even a complementary form to observe, monitor and evaluate in smaller scale than large tests with students. In any case, it is interesting to observe beliefs in different contexts and investigate their relationship with different substance patterns and quality of prevention interventions.

## Poster 2.5

**Edit Sebestyén, Borbála Paksi, Anna Magi and Katalin Felvinczi**

### ***Indicated prevention within the diversion scheme in Hungary: using evaluation results for developing regulatory document to improve practice of prevention-education service (PES)***

Speaker: Edit Sebestyén

Context: The prevention-education service (PES) is an indicated prevention within the diversion scheme provided for offenders using drugs without signs of addiction. As an alternative to prison it is a mandatory programme for people caught by the police.

The main objectives are to: prevent regular drug use and development of addiction, decrease time/frequency of usage, promote healthy lifestyle, develop life skills and self-reflection. Further objectives can be modification of attitudes, improvement of quality of life, achieving abstinence. The ultimate aim is the abolition of criminal proceedings.

PES and its clientele: PES is implemented as a 24-hour mandatory programme carried out within 6-12 months. Clients belong to a wide age range (13y-66y), have various drug use patterns and socio-economic backgrounds, and very low motivation. This extreme variety makes the individual needs assessment crucial at start.

Evaluation research: An evaluation study was carried out among 16 PES service providers with the biggest clientele. The quantitative element aimed at describing the services/programmes delivered, the clients' characteristics and – with a pre-test-post-test design – operationalising the

general and service specific objectives of the programmes to measure changes at client level which might be contributed to the PES programme. The qualitative element aimed at checking if the service providers followed the recommendations of the so far existing (outdated) professional regulatory document. 2,5-3 hours semi-structured interviews with representatives of the service providers were conducted.

Based on the research findings the regulatory document was updated. Recommendations were formulated related to all aspects of the service. As the main obstacle to achieve considerable results with the clients – according to professionals - is the mandatory nature of PES, specific methods/techniques were suggested. A great emphasis was put on the development of a plan at client level to provide personalised interventions. As evaluation is mostly missing from the practice as well as regular supervision is not in place these were also highly recommended. The final draft of the regulatory document was consulted with practitioners from the field to assess the importance, relevance and feasibility of the recommendations as these criteria proved to be significant during the development of EDPQS

## Poster 2.6

**Paksi Borbála, Anna Magi, Edit Sebestyén and Katalin Felvinczi**

***Alternative to prison for young offenders using drugs – Evaluation of the immediate impact of indicated drug prevention interventions in Hungary as part of the diversion scheme***

Speaker: Katalin Felvinczi

Context: The diversion scheme in Hungary is established for drug users who were caught by the police because of consuming or possessing small amounts of controlled substances. It offers a pathway into harm reduction, treatment and prevention as an alternative to prison for the benefit of the offenders and the society. The engagement is mandatory for the offender to avoid prison. One form of diversion scheme is provided in the format of indicated prevention as a prevention-education service (PES) for those who do not show signs of addiction.

Objectives: The objectives of the research were: to describe the content of PES in a structured way according to internationally accepted criteria (EMCDDA, EDDRA); to describe the profile of the PES clients (socio-demographic characteristics, drug using patterns); to examine if services met the criteria in the PES regulatory document; to evaluate the effectiveness of the services according to their general and specific objectives; and to check the satisfaction of the clients with the intervention they participated in.

Methods: The evaluation followed a 'pre-test post-test single group' design. A face-to-face self-administered questionnaire was used. The items described the individual characteristics of the clients and operationalised the general and specific objectives of the interventions of 16 PES service providers with the biggest clientele based on client turnover data of previous years. The pre-test was administered upon entering (706 individuals) whilst the post-test upon completing the intervention (420 individuals). During the analysis changes in drug use and certain psychological variables according to general and specific objectives of the interventions, clients' satisfaction and fitting with the recommendations of the regulatory documents were explored.

Results: During the presentation the description of the interventions, client characteristics and regression models built on individual and program characteristics explaining the changes in drug use and mediating variables will be shown.

## Poster 2.7

**Francisco Bastos, Lidiane Toledo and Carolina Coutinho**

***Qualitative analysis regarding the implementation Elos and #Tamojunto prevention programs in northeastern cities of Brazil, 2016: Challenges and perspectives of improvement and re-evaluation***

Speaker: Carolina Coutinho

Background: In 2013, two programs on drug use prevention were adapted and implemented in Brazil, as follows: #Tamojunto (originally "Unplugged") and ELOS ("Good Behaviour Game"). This study aims to discuss programs' implementation aspects according to teachers and multipliers' from two Brazilian northeastern states (Ceará and Rio Grande do Norte), in 2016.

Methods: 12 schools were selected (6 for each program). Teachers and program multipliers from these schools attended focus groups and answered in-depth interviews. Data collection was accomplished in October-December, 2017. The interviews were recorded via digital audio and transcribed for content analysis.

Results: One focus group; 11 in-depth interviews focusing teachers and 8 multipliers from ELOS were carried out, whereas respecting #Tamojunto 7 interviews with teachers and 8 with multipliers were done. Most teachers in charge of ELOS considered the formative and the monitoring meetings satisfactory. Some multipliers considered the formative satisfactory, but the monitoring meetings insufficient. In the context of #Tamojunto, both teachers and multipliers liked the formative activities and considered the monitoring meetings satisfactory. In the



both programs, the interviewees highlighted difficulties in their agendas, besides insufficient number of the monitoring meetings. The interviewees said that ELOS minimum standards do not match the original protocol. The implementation period fell short of the recommended timetable, whereas for #Tamojuntó there were problems regarding the discontinuation/interruption of the regular 12 classes.

**Conclusions:** Lack of compliance with the standard procedures of both programs has been frequently observed. Changes were made in order to improve programs, due to the interviewees' perception that they were not working, but provisional adaptations tend to be unartfully done. One should highlight the serious caveats of public education in contemporary Brazil. Teachers are overburdened, poorly trained and paid, and work under unfavorable conditions.

## Poster 2.8

**Carolina Coutinho, Lidiane Toledo, Jurema Mota, Raquel De Boni, Neilane Bertoni, Mauricio Vascolcelos and Francisco Bastos**

### *Substance use and dependence among Brazilian adolescents: Findings from a National Survey, 2015*

Speaker: Carolina Coutinho

**Background:** In Brazil, most studies on substance use have assessed clinical samples or findings from local ethnographic studies from major drug scenes located in the industrialized southeastern metropolitan areas (e.g. São Paulo, Rio). This study summarizes sociodemographic characteristics of youth aged 12-17 years old, who have been contacted and interviewed by a probability survey, all over the country.

**Methods:** The III Brazilian Household Survey on Substance Use is a nationwide representative survey that interviewed 16,273 individuals selected by a multi-stage probability sampling in 2015. Individuals self-reported their HIV status and answered about 12-month substance use and DSM-IV dependency criteria for alcohol, benzodiazepines, amphetamines, opioids, inhalants, ketamine, LSD, ecstasy, cannabis, powder and crack cocaine and Fagerstrom test for nicotine dependence. The prevalences and corresponding 95% confidence intervals (CIs) were estimated considering the complex sample design and weight calibration. The results summarize descriptive statistics of this segment of the national sample.

**Results:** After weighting and post-stratification findings refer to a population of 20,276,385 adolescents aged 12-17y. Alcohol use was reported by 22.2% (95%CI:19.0-25.5) and 8.8% (95%CI:6.1-11.5) in the

last 12m and 30d, respectively. Approximately 120,000 adolescents (0.6%[95%CI:0.2-1.1]) were classified as alcohol dependent. Tobacco smoking was reported by 3.8% (95%CI:2.2-5.4) and 2.4% (95%CI:1.2-3.5), in the last 12m and 30d, respectively. Approximately 61,000 (0.3%[95%CI:0.0-0.7]) were classified as tobacco dependent. Cannabis was reported to be smoked by 2.2% (95%CI:0.9-3.5) and 1.3% (95%CI:0.2-2.4) in the last 12m and 30d, respectively. Around 12,000 adolescents were classified as cannabis dependent. For illicit substances other than cannabis, prevalences were 0.7% (95%CI:0.1-1.3) and 0.2% (95%CI:0.0-0.6), in the last 12m and 30d, respectively.

**Conclusions:** Prevalence of use was higher for licit substances (e.g. alcohol and tobacco), reinforcing the need to reinforce prevention of such substances, which use is widespread and that seem to be function as gatekeeper substances in this segment.

## Poster 2.9

**Neilane Bertoni, Liz Maria de Almeida, Moysés Szklo, Valeska Figueiredo and Andre Szklo**

### *Assessing the relationship between smoking and abdominal obesity in a National Survey of Adolescents in Brazil*

Speaker: Neilane Bertoni

Abdominal obesity is even a stronger risk factor than overall obesity for noncommunicable chronic diseases. We examined the association between smoking and abdominal obesity among adolescents. Analyses were based on 38,813 subjects aged 15-17 years from the Study of Cardiovascular Risks in Adolescents (ERICA), a Brazilian school-based national survey. Abdominal obesity was defined considering waist circumference (WC) percentiles. Statistical analyses, stratified by sex, considered the sample complex design. Poisson regression with robust variance was used to estimate smoker-to-nonsmoker abdominal obesity prevalence ratio (PR), adjusting by sociodemographic and lifestyle variables. Higher prevalence of abdominal obesity was observed among adolescents who consumed >1 cigarettes/day, comparing to nonsmokers: considering WC >80th percentile, adjusted-PR for boys was 1.27 [95%CI:1.05,1.52] and, for girls, 1.09 [95%CI:1.00,1.19]; using the 90th percentile, adjusted-PR were 2.24 [95%CI:1.70,2.94] and 1.27 [95%CI:1.12,1.46], respectively for male and female adolescents. Our findings suggest a positive association between cigarette consumption and the prevalence of abdominal obesity, for both boys and girls. Although other studies had found this association in adults, our study contributes to this discussion by assessing it in adolescents using a nationwide representative sample of medium and large municipalities.

## Poster 2.10

**Rebecca Meiksin, Ruth Ponsford and Chris Bonell**

***Cognitive testing of survey items on social norms relating to sexual behaviour and dating and relationship violence with young adolescents in England***

Speaker: Rebecca Meiksin

**Background:** Increasingly, interventions to improve adolescent sexual and reproductive health and prevent dating and relationship violence (DRV) are incorporating social norms approaches. These strategies aim to shift perceptions of what behaviours are typical and acceptable in a 'reference group' of important others. Despite the proliferation of norms-based interventions, studies of such programmes rarely attempt to measure changes in social norms and there is little consensus on how to do so. Such measures would require that participants could distinguish between their personal attitudes and the views of others and could report on the latter. As part of our research piloting two school-based interventions that aim to shift norms concerning sexual behaviour, gender and DRV, we adapted and cognitively tested measures of personal attitudes and descriptive and injunctive norms relating to these phenomena with adolescents in England.

**Methods:** We conducted cognitive interviews with 25 young people aged 12-15 in England. We assessed the extent to which the intended meaning of each item was clear to participants (understandability) and the extent to which participants were able to respond to the questions (answerability).

**Results:** While participants found it easier to answer questions about their own views compared to those of others, our data suggest respondents were able to distinguish between these two phenomena. For norms items, answerability was improved where participants could draw on concrete experiences of social norms being publicly displayed, including through social sanctioning. Where norms were less publicly manifest, this detracted from the answerability of our questions.

**Discussion:** Our data suggest it is possible to develop social norms measures about sexual behaviour, gender and DRV that are both understandable and answerable for 12-15 year-olds in England, but careful consideration is needed to establish the value of including measures of social norms that are not publicly manifest among this age group.

## Poster 2.11

**Lidiane Toledo, Carolina Coutinho, Jurema Mota, Neilane Bertoni and Francisco Bastos**

***Gender differences regarding behavior/ patterns crack use: Crack National research findings, Brazil, 2012***

Speaker: Lidiane Toledo

**Background:** Men and women usually presented marked differences on drug use patterns as well as on drug use-related risk behaviors. Identification and understanding such differences may contribute to public policies tailored to each population group needs, taking in consideration gender perspectives (among others). This study aims to identify differences among men and women, regarding their pattern of use and their behaviors related to crack cocaine use, recruited from open drug scenes, all over Brazil.

**Methods:** In 2012, a National Survey on Crack Cocaine interviewed 7,381 regular (after PAHO's CODAR criteria) crack/cocaine consumers, aged 18+y. Crack users answered a questionnaire and were rapidly tested for HCV and HIV. The prevalence and corresponding 95% confidence intervals (CI) were estimated considering the complex sample design. Bivariate analyses, stratified by sex, defining contingency tables and their respective statistics.

**Results:** Men reported more frequently to have used crack in consequences of 'curiosity/desire' than women (84% [95%CI:80.5-86.9] vs. 16% [95%CI:13.1-19.5] respectively;  $p=0.00$ ). The average time of crack use (in months) was significantly higher for men than women (81.23 [95%CI:79.30-83.17] and 71.70 [95%CI:68.67-74.73], respectively). However, women reported to do more intense use (in terms of the number of stones per period of time [a binge "session"]) than men (21.31 [95%CI:18.87-32.02] and 13.25 [95%CI:11.56-14.94], respectively). Among men, a much higher proportion of polydrug use was found than in women (80% [95%CI:76.7-82.9] vs. 20% [95%CI:17.1-23.3], respectively;  $p\text{-value}=0.000$ ). Men shared devices for crack use more often than women (76.9% [95%CI:73.1-80.3] vs. 23.1% [95%CI:19.7-26.9], respectively;  $p=0.014$ ), despite the fact they have accessed harm reduction programs more frequently (56.3% [95%CI:33.0-77.1] and 43.7% [95%CI: 22.9-67.0]), respectively;  $p=0.028$ ).

**Conclusion:** Some important differences have been clearly identified and need to be taken into consideration in the design and implementation of more sensitive, properly tailored prevention and harm reduction initiatives.

## Poster 2.12

### Angeliki Kallitsoglou

#### *Education professionals' awareness and attitudes to evidence-based practices for social and emotional skills in early childhood*

Poor social and emotional skills in early childhood can be a sign of poor mental health and well-being. Schools play a pivotal role in the prevention of poor mental health in children through the implementation of evidenced-based practices (EBPs) for social and emotional learning. Despite the documented benefits of EBPs for good social and emotional development, it appears that teachers do not use them systematically. An analysis of the theoretical frameworks for intervention implementation suggests that successful EBP-adoption is related to professionals' knowledge and awareness of the innovation to be implemented and their attitude about it. The literature suggests that cultivating a culture of learning and research-informed practice in the sector of education could boost teachers' uptake of EBP by increasing awareness and developing positive attitudes towards the use of research-informed practices. Therefore, it is proposed that a better understanding of the teacher factors that influence the adoption of EBP, and of the potential of research-informed educational practice to enhance EBP implementation, could help understand the challenges in universal and systematic uptake of EBP for early childhood social and emotional development.

positive results. It was subject to further implementation and study in many other countries in and outside the EU since then. the Nigeria project the challenge of a robust study design was accompanied by many challenges to implementation factors. Before the control and intervention groups were randomized, the project team went through a preliminary implementation phase, in order to assemble input for adaptation of the program materials. Adaptations were submitted to a control on fidelity to critical elements of the intervention. The teacher is the deliverer of Unplugged, therefore trained in a three day workshop. International Master Trainers guided Nigerian trainers through a three phase TOT process, resulting in 7 local trainers certified by the EU-Dap Faculty to deliver training to teachers and one master trainer to further train other trainers. This process that in the study phase delivered input to adaptation of the training scenario. The UNODC Nigeria team established this pre-trial phase, study phase and further implementation phase with EU-Dap consultants within the EU-sponsored large scale project. From 2015 until today relevant stakeholders were involved with the focus on sustainability and upscale. The Ministry of Education was obviously a prominent stakeholder, but others were also addressed in order to guarantee quality dissemination and funding. A first good example of local financing and dissemination was experienced in the North-West State of Kebbi, February 2018. Conclusions: throughout the study phase and anticipating on effectiveness results, crucial issues for implementation are to be established.

## Poster 2.13

### Peer van der Kreeft, Federica Vigna-Taglianti, Marta Alesina, Harsheth Virk, Ljiljana Damjanovic, Emina Mehanović, Juliet Pwajok, Ibanga Akanidomo, Glen Prichard and Annemie Coone

#### *The effectiveness of the "Unplugged" program in Nigeria: adaptation, Training of Trainers and implementation*

Speaker: Peer van der Kreeft

In 2015, the United Nations Office on Drugs and Crime (UNODC) with the collaboration of the Federal Ministry of Education (FME), the National Drug Law Enforcement Agency (NDLEA) and the National Agency for Food and Drug Administration (NAFDA), implemented in Nigeria a large-scale project funded by the European Union (EU) to promote healthy lifestyles in schools, families and communities. Within the project, the implementation and evaluation of the school-based prevention program "Unplugged" were planned. The Unplugged 12 session school based drug abuse prevention program has been evaluated in 7 European countries 2005-2008 with

## Poster 2.14

### Wadih Maalouf, Matthew Kiefer, Milos Stojanovic, Giovanna Campello, Asma Fakhri and Ziad El-Khatib

#### *Gender differences in results of a UNODC-LCIF multisite Case Control Trial of the Lions Quest Skills for Adolescence in South East Europe*

Speaker: Wadih Maalouf

UNODC has an ongoing global initiative promoting evidence based prevention programmes in line with the UNODC and WHO International Standards on Drug Use Prevention (focusing on low/middle income countries). The UNODC collaboration with Lions Clubs International Foundation (LCIF) availed the opportunity to pilot Lions Quest Skills for Adolescence (LQSFA) as part of this initiative. LQSFA is a programme targeting elementary school age students and built on a Social and Emotional Learning approach. The abbreviated (40 session) version of LQSFA was used during pilot in close coordination and partnership with the Ministries of Education of concerned countries. Following translation and adaptation of LQSFA, a total of 5,041 elementary school students (2,954 cases and 2,087 controls) from 85 schools in



Serbia, Montenegro and FYRO Macedonia participated in the pilot. The programme was implemented through 231 teachers trained on its content. An analysis of the change of the indicators (delta change) between t0 and t1 was undertaken in cases and controls, by country. Currently almost 3,000 additional students from Bosnia Herzegovina, Albania and Guatemala are in the process of participating in clinical trials in their respective countries. The average age of the students where programme was already implemented was 13.3 years (47% to 50% of the sample- depending on the country- were girls). The programme showed a significant effect on current use of substances (alcohol, cigarettes and marijuana) as well as intention to use substances (alcohol, cigarettes and marijuana) in the next 3 months among ever users. This impact was noted despite challenges in implementation (only a few of these schools managed to undertake all 40 sessions of LQSFA in one academic year). This paper will discuss gender differences in the results noted on the main two indicators (current substance use and intention to use in the next 3 months among users). It will also shed light on the differences in refusal skills, perception of harm and normative belief of the use of these substances among peers by gender. The challenges and lessons learned during operations will also be presented.

## Poster 2.15

**Joanna Travis-Roberts, Jeff Lee and Kira Weir**

### *Examining international digital solutions for career development and support*

Speaker: Jeff Lee

This session will explore the ways digital solutions are being employed internationally to enhance the field of substance use and prevention including online training, webinars, online networking and the promotion of research in digital spaces.

The strengthened presence of digital health interventions and prolific use of social media in the substance use field is drawing professionals to work more frequently in online spaces. This can present many opportunities for interconnected approaches, shared learning and professionalisation opportunities.

Working within a global remit, the International Society of Substance Use Professionals (ISSUP) seeks to connect those working in the field with key research, training opportunities and serve as a digital focal point for information about substance use prevention and treatment.

Within the session we will explore the ways in which technology can support the field of substance use prevention and treatment as a unique and multidisciplinary

field, drawing on examples of the work of ISSUP and other international agencies in: developing online networks of substance use professionals; sharing knowledge online; providing online support to face-to-face training; giving physical initiatives an online presence; and online training

By highlighting opportunities to strengthen the field through online working and the development of digital resources or training tools we hope to inspire anyone who is unsure about how they can kickstart their professional digital journey.

## Poster 2.16

**Maria Isabel Acuña San Roman, Jose Manuel Martinez Montilla, Ana Magdalena Vargas Martinez, Francisco Vega Rodríguez, Carmen Torrejon Guirado, Joaquin Salvador Lima Rodriguez and Marta Lima Serrano**

### *Alerta Alcohol: Long-term Effects of a Web-based computer tailored intervention to prevent alcohol drinking among Andalusian adolescents.*

Speaker: Maria Isabel Acuña San Roman

Background: ALERTA ALCOHOL, a web-based computer tailored intervention, was developed to prevent binge-drinking in Spanish adolescents that provide personalized health messages which could be more likely to attract attention of adolescents. Objective: to evaluate the effectiveness of ALERTA ALCOHOL.

Method: Cluster randomized controlled trial (RCT), with 8 schools experimental and 7 control schools. The participants (1247) were students aged 16-18 years belonging to the public-school system of Andalusia. 612 students (349 EC, 263 CC) participated at four-month-follow-up (dissertation rate 50.92%) and 226 (104 EC, 122 CC) at 18-months-follow-up. After eliminating those that not completed the questionnaire or not did the first evaluation, only 152 were recovered of the final evaluation (50 EC, 102 CC). The dependent variables were lifetime consumption, weekly consumption, excessive drinking and intention to reduce alcohol and binge drinking. When possible multilevel linear or binomial regression, in other case, conventional multivariate analysis were carried out. Results 661 (53%) were girls, with an average age of 16 years, of which 461 (55.4%) had drunk, and 283 (58.1%) binge-drunk in the last 30 days. Instead 9 males (56.3%) had excessive drinking. At four-months-follow-up, there was an un-adjusted effect of the program ( $p < 0.05$ ), binge-drinking was reduced only significantly in EC (reduced 7.7%;  $p = .015$ ) vs CC (reduced 4.4%;  $p = .221$ ). There was a significant adjusted effect of the intervention on excessive drinking ( $p = .040$ ), being the OR=0.11 comparing EC vs

CC. Finally, there was an interactive adjusted effect with religion on alcohol reduction intention. The program was significantly more effective on Catholic but significantly less effective on Muslim participants ( $p=.026$ ); and an adjusted effect on binge-drinking reduction intention ( $p=.042$ ). These effects disappeared at 18-months follow-up.

Conclusions: It shows an effect of Alerta Alcohol on intention to reduce alcohol and binge drinking and to reduce excessive drinking and a marginally effect to reduce binge-drinking at short-term but this effects are not maintained at long-term. In futures studies, we should design strategies to avoid the high rate of desertion. In spite of this, Alerta Alcohol could be useful and could be considered as a good practice to reduce alcohol and binge-drinking in Spanish adolescents.

## Poster 2.17

**Federica Vigna-Taglianti, Ljiljana Damjanović, Marta Alesina, Emina Mehanović, Ibanga Akanidomo, Juliet Pwajok, Glen Prichard, Peer van der Kreeft, Harsheth Kaur Virk and The Unplugged Nigeria Coordination Group**

***The effectiveness of the "Unplugged" program in Nigeria: study design and results***

Speaker: Federica Vigna-Taglianti

Background: In 2015, the United Nations Office on Drugs and Crime (UNODC) with the collaboration of the Federal Ministry of Education (FME), the National Drug Law Enforcement Agency (NDLEA) and the National Agency for Food and Drug Administration (NAFDA), implemented in Nigeria a large-scale project funded by the European Union (EU) to promote healthy lifestyles in schools, families and communities. Within the project, the implementation and evaluation of the school-based prevention program "Unplugged" were planned.

Methods: The Federal Ministry of Education provided a list of 60 federal schools available for the project. Sample size calculations estimated about 4000 pupils were needed for the evaluation study. Considering 45 pupils per class, and 3 classes participating in each school, 32 schools were randomly extracted from the FME list. The extraction was performed at the central level, in OED Institute in Torino, Italy, taking into account the population size of the zones: 6 schools were extracted in NW, 4 in NE, 4 in NC, 2 in FCT, 8 in SW (of which 2 in Lagos), 4 in SE, 4 in SS. A self-completed anonymous questionnaire was created ad hoc for the surveys. To preserve confidentiality, the questionnaires were labelled with a 9-digit individual code self-generated by the student. The questionnaire investigated characteristics of the social environment,

tobacco, alcohol and substance use, knowledge, beliefs, and attitudes about substances, the perception of peers and friends use, personal skills, and school climate.

Results: Unplugged was effective in reducing the prevalence of sporadic, regular and daily alcohol use, and of marijuana use among younger pupils, improving negative beliefs on cigarettes and alcohol, reducing the erroneous perception of peers' prevalence of cigarettes and alcohol use, with a stronger effect among younger pupils, and improving class climate.

Conclusions: Unplugged reached in Nigeria good results in preventing alcohol and marijuana use, and improving class climate and normative beliefs, similarly to what observed in the European original effectiveness study. Therefore, the implementation of Unplugged at a larger scale in the country can be supported, with the attention of focusing on younger adolescents.

## Poster 2.18

**Joanna Travis-Roberts, Kira Weir and Jeff Lee**

***Developing your digital skillset in the field of substance use and prevention.***

Speaker: Jeff Lee

Technology has allowed us to become more connected and share information more readily. It has also led to increased competition for funding opportunities, job vacancies and research. This generates greater need for those embarking on a professional career to network effectively and ensure that they are well informed about the latest developments in their field. Our globally digital world is dynamic and requires the skills to think critically about information found online, adapt to incoming changes and respond with an agile approach.

This session will discuss key tools to utilise in keeping up to date with developments in the substance use field, getting connected to other professionals and searching for key research and funding opportunities. The Content and Research team from the International Society of Substance Use Professionals (ISSUP) will discuss the ways they work to keep the Knowledge Share section of the ISSUP website up to date while working virtually. The newly developed Networks feature of the ISSUP website will also be discussed amongst other examples of ways in which new technology can assist career development and networking opportunities.

The tools discussed during the session all allow the early career prevention specialist to enhance their professional standing, knowledge and network opportunities. There will also be the opportunity to feedback on what digital tools would further enhance the needs of the group.

The workshop will be led by Kira Weir who has more than five years experience of working in digital communication and online promotion focusing on the field of health and wellbeing

## Poster 2.19

**María Del Carmen Torrejón-Guirado, Andrea García-García, Francisco Vega-Rodríguez, María Isabel Acuña-San Román, Sara Amo-Cano and Marta Lima-Serrano**

***Validation of scales to evaluate motivations to cannabis use among adolescents between 15 and 18 years old.***

Speaker: María Del Carmen Torrejón-Guirado

**Objective:** To test the reliability and validity of the scale based on the Model I Change which evaluates the motivations to consume cannabis in Spanish adolescents: Attitude, Social Influence and Self-efficacy.

**Methods:** A questionnaire was designed and validated by Delphi groups, which evaluates the motivations of cannabis use in adolescents. The validation of the content to the questionnaire will be carried out through the calculation of the mean, standard deviation, median and percentage of high valuations (4-5), and the calculation of the content assessment index. We performed a pilot study with 236 adolescents between 15 to 18 years old from Sevilla and Cádiz, previously their parents give the informed consent. The internal consistency was measured (Cronbach's Alpha > 0.70) and the construct validity by exploratory factor analysis. Sampling adequacy was assessed by testing Kaiser-Meyer-Olkin tests (KMO > 0.50) and the Bartlett's Sphericity test, with significant values. It was evaluated that: items had a Pearson's  $r > 0.30$  on first factor during the extraction and  $> 0.40$  in the matrix of rotated components; The first factor will explain a minimum of 20% of the variance; and that the total variance explained was  $> 50\%$ . The Varimax rotation was used. The analysis was performed with SPSS 21.0 statistical software.

**Results:** The factorial analysis showed data in favor of the multidimensionality of scales, assuming certain limitations. Cronbach' Alpha values are between 0,7 and 0,962 were obtained for all. Before the rotations, the first factor explained  $> 26\%$  of the variance and the total variance explained was always  $> 58\%$ . After the rotation, the factorial loads of the items were  $> 0.40$  for their membership factor.

**Conclusions:** We present an instrument with indications of reliability and validity that could be used to determine the motivations that lead adolescents to consume cannabis for subsequent intervention on them.

## Poster 2.20

**Hilda Garcia, Flavio Marsiglia, Stephen Kulis and Grace Alderson**

***Drug Prevention for Adolescents in Violent Urban Settings: Implementation and Evaluation of Keepin' it REAL in a Mexican Border City***

Speaker: Flavio Marsiglia

Cities provide a unique educational, cultural, and economic context for adolescents to develop socially and psychologically. However, cities may also have a negative impact on their mental health and well-being, particularly when they are exposed to settings with high levels of drug-trafficking related violence, substance abuse, and pervasive poverty. The purpose of this study is to examine and discuss barriers and facilitators to the implementation of Keepin' it REAL, an efficacious school-based drug prevention program, in a Mexican mid-size city bordering the United States and experiencing high levels of drug-trafficking and drug related violence. The analysis combines data from a pretest survey ( $n=1,418$ ) and focus groups conducted with both teachers and middle-school students in the city of Nogales, Mexico between 2017 and 2018. In this study 91.6%, 67.4% and 59.6% of students have witnessed, have been victimized and have participated in a violent events, respectively, at home, school or neighborhood. Qualitative data indicate a high acceptance of the program among teachers and students and positive impacts on individual assertiveness and preventive behaviors despite of a local culture of normalized drug-related violence and substance use. The presentation provides recommendations for drug prevention interventions in violent urban settings that build on individual, family, and community strengths to promote the mental health and well-being of children. Findings from this study can be applied to other Mexico-USA border cities as well as to other countries with similar transborder issues.

## Poster 2.21

**Filipa Sampaio, Richard Ssegonja and Camilla Nystrand**

***The health economic consequences related to the use of anabolic androgenic steroids (AAS) in Sweden***

Speaker: Filipa Sampaio

**Background:** In line with the objectives of the Swedish national public health policy, a national drug strategy was developed – A Comprehensive Strategy for Alcohol, Narcotics, Doping and Tobacco (ANDT) – with the overarching goal to have a society free from narcotics and



doping, reduced medical and social harm from alcohol, and reduced tobacco use. In the last decades, the use of anabolic androgenic steroids (AAS) has become a public health concern, where reports estimate that about 1% of all men have tried AAS. This study aims to estimate: a) the health and economic consequences related to the use of AAS in Sweden, and b) the cost-effectiveness of interventions for the prevention of AAS use. This work is a part of a series of projects commissioned by the Public Health Agency of Sweden as part of their ANDT strategy

**Methods:** A scoping review was performed to find evidence on the epidemiology and consequences related to AAS use. Meetings were held with experts to identify the most relevant and well researched consequences associated with AAS use, from a public sector and a broader perspective. This information was used to develop a population-based cohort Markov model to estimate the costs and outcomes resulting from the delivery of an intervention for the prevention of AAS use compared to a "do-nothing scenario". The model targeted a cohort of males aged 18-35 who attend gyms in Sweden, and followed them until the age of 65.

**Results:** Despite the relatively low prevalence of AAS use, there is a large amount of research on related consequences. The consequences most commonly referred to in the literature are hypertension, hypercholesterolemia, hypogonadism, depression, anxiety and criminally, all which entail a large financial burden to the society. Preliminary findings show that a generic hypothetical preventive intervention could reduce the negative outcomes and costs related to the use of AAS.

**Conclusions:** A generic preventive intervention targeting the use of AAS among young male adults in Sweden could benefit the society by improving health outcomes and reducing costs. This study is the first examining the longer-term costs and outcomes related to AAS use.

effects of AAS are severe and may cause both physical and mental health issues e.g. cardiomegaly, liver diseases as well as anxiety and/or aggressive behaviour. The method 100% Pure Hard Training (PHT) was developed by STAD (Stockholm Prevents Alcohol and Drug Problems) as gym owners and staff raised concern about the prevalence of AAS among non-elite gym-goers. The key components of 100% PHT are community mobilization, policy work, training of gym staff, certification, follow-ups, and media advocacy. Today, about 600 gyms across Sweden are working with 100% PHT. Each gym is part of a local network, which is managed by a coordinator; the coordinators are in turn managed by STAD on a national level.

**Aim:** To identify facilitators and barriers related to the implementation of 100% PHT in order to improve the national dissemination of the method.

**Method:** A semi-structured questionnaire was distributed in 2017 to 68 coordinators spread across 20 counties in Sweden. The survey was sent out by email with four follow-up reminders, resulting in 39 respondents.

**Results:** A number of facilitating factors were identified, such as an interest and perceived need of doping prevention, a high level of engagement and cooperation between stakeholders, and the method 100% PHT being straightforward and easy to understand. Many coordinators described time constraints and lack of resources as the main barriers.

**Conclusion:** In line with similar preventive methods, main facilitating factors related to the implementation of this nation-wide anti-doping method were persistence and continuous support from the project management on a national level and from the coordinators on a local level. Lack of resources was identified as a main barrier, whereas community mobilization a crucial factor for success.

## Poster 2.22

**Vendela Hasselberg, Emma Westin and Johanna Gripenberg**

***Facilitators and barriers identified during the implementation of 100% Pure Hard Training – a preventive method aimed to reduce the prevalence of anabolic-androgenic-steroids and growth hormones among gym-goers.***

Speaker: Vendela Hasselberg

**Introduction/Background:** Doping has previously been perceived as an issue solely related to elite sports; however, it has become more common among recreational sportspeople. Doping among this group primarily concerns performance-enhancing supplements such as anabolic-androgenic-steroids (AAS) and growth hormones. The side

## Poster 2.23

**Anna Borucka, Anna Radomska, Marta Sikorska and Bartosz Kehl**

***My life, My choice. Universal school- based prevention programme for students with mild intellectual disability.***

Speaker: Anna Borucka

The poster will present: the main assumptions, goals, content and main results of formative evaluation of the programme for pupils aged 13-16 with intellectual disability. The main goals of the programme are: to increase students knowledge of risk related with using psychoactive substances and new psychoactive substances; to develop of the students communication social skills; to improve parent's skills of providing

emotional support to their children. This programme is the first proposal of universal prevention which is dedicated to implement in Polish schools for students with special educational needs. The programme is conducted by teachers in the form of 8-hours lessons for students, workshops for parents and concluding meeting (group game) for students. The main results of formative evaluation of the programme are promising and confirmed the positive effects concerning strengthening of protective factors and increasing of the knowledge about the risk of using psychoactive substances. The programme was prepared and tested by Foundation "Poza Schematami" in the frame of agreement with the National Bureau for Drug Prevention and financed from the Gambling Problem Solving Found.

## Poster 2.24

**Mohamed Iheb Bougmiza, Sherif Omar, Nagah Salim, Noora Al Kaabi and Noora Al Kubaisi**

***Multi-level, Multi-component community-based behavior change interventions: basics and challenges (Example of promoting physical activity)***

Speaker: Mohamed Iheb Bougmiza

Individual-level approaches to lifestyle behavior change at the population level have been unsuccessful. Thus, there is an increasing interest in integrated programs that intervene in multiple community settings at the same time and involve policy and system changes. The purpose of this work is to highlight and explain the most common challenges faced by a multi-level, multi-component approach to community-based intervention for healthy living.

The five challenges areas are: building collaboration and partnerships; creating intensity and effectiveness of intervention activities; creating consistency between activities and across levels; synchronizing program activities across institutional settings and levels; and designing the intervention programs to be sustainable post intervention.

## Poster 2.25

**Benjamin Petruzelka**

***Role of Police in environmental prevention: pilot assessment of the effect of increased law enforcement in Czech republic***

Czech Police and its Czech National Drug Headquarters (NDH) are actors in Czech crime and drugs control system that is also viewed as preventive. Preventive action of

Police is, according to its own statements, twofold. First, Czech Police and NDH support and run specific prevention programs, for example in primary schools. Second, the enforcement of law is supposed to have an influence on environment that should limit the availability of illegal drugs and influence the societal values regarding the use of illegal drugs. Consequently, this should have a preventive effect on use of illegal drugs. However, the effect of law enforcement on environment is not known.

Our aim is to introduce a pilot assessment of the effect of increased law enforcement between 2005 and 2015 (police arrests related to cannabis) on societal values (social acceptability of cannabis use, punitive attitudes) and availability of cannabis. The number of arrests related to cannabis rose gradually from 682 persons in 2005 to 1449 persons in 2015. The statistics of NDH are used to measure annual increase in cannabis related police arrests (2005-2016). The data from surveys conducted by The Public Opinion Research Centre of Czech Academy of science are used to measure societal values related to cannabis. Furthermore, the data from the surveys conducted by The Czech National Monitoring Centre for Drugs and Addiction (National Focal Point) are used to measure perceived availability of cannabis. To analyse the effect of increased law enforcement efforts, time series are observed between 2005 and 2016. Preliminary results suggest that despite the law enforcement efforts societal values were developing towards higher acceptability of cannabis. Considering the availability of drugs, the results seem inconclusive. These results are discussed with regard to other significant events: change of legislation, medialisation of increased law enforcement and specific heavy medialised cases (the operation against „growshops“).

## Poster 2.26

**Joella Anupol, Elena Gervilla, Sandra Conti, Javier González Aloy, Clarisse Guimaraes, Irene Mut and Rafael Jiménez**

***Is your weekly budget linked to your alcohol consumption?***

Speaker: Clarisse Guimaraes

Previous studies have assessed the possible association between socioeconomic position and alcohol use. In adolescents, their own financial resources play a more important role in their drinking behaviour, rather than their parents' income. For example, higher adolescent weekly income ( $\geq \text{€}50$ ) was associated with regular alcohol use and consumption of larger amounts. In young adults, also personal and household income was positively correlated with alcohol use frequency and quantity. The aim of this study is to determine if sociodemographic

characteristics and weekly budget are associated with alcohol use in young people. 307 participants (56% men, M age=21.6 years, SD=3.08, range=14-35 years) who were drinking in the streets (botellón) of Palma de Majorca were interviewed. They completed a survey about sociodemographic data, weekly budget, and drinking frequency. Breath Alcohol Concentration (BrAC) was assessed with a breathalyser. Participants had a median weekly budget of €50. The weekly budget was categorised as low (LWB) (<€49) or high (HWB) (≥€50). 64.3% of the sample had a high weekly budget. We found statistically significant differences in these two groups by gender ( $\chi^2(1, N=300)=9.842, p=.002$ ; 72% HWB in men, whereas 54.5% HWB in women) and age (Mann-Whitney U test:  $Z = -6.381; p<0.001$ ; Mdn=22 years in HWB, Mdn=20 years in LWB). Men with higher weekly budget present higher BrAC (Mann-Whitney U test:  $Z=-2.170; p=.030$ ; Mdn=0.23 mg/L in HWB, Mdn=0.12 mg/L in LWB) and AUDIT score (Mann-Whitney U test:  $Z=-2.3; p=.021$ ; Mdn=9 in HWB, Mdn=7 in LWB) and more drunk episodes (Mann-Whitney U test:  $Z=-1.973; p=.048$ ; Mdn=3 in HWB, Mdn=2 in LWB). On the other hand, women with higher weekly budget present higher BrAC (Mann-Whitney U test:  $Z=-1.98; p=.048$ ; Mdn=0.12 mg/L in HWB, Mdn=0.07 mg/L in LWB), more alcoholic drinks consumed (Mann-Whitney U test:  $Z=-2.231; p=.026$ ; Mdn=2 in HWB, Mdn=2 in LWB) and more drunk episodes in the last month (Mann-Whitney U test:  $Z=-2.478; p=.013$ ; Mdn=2.5 in HWB, Mdn=2 in LWB). High weekly budget is strongly associated with higher alcohol consumption. Health and prevention programmes should also focus on money management.

## Poster 2.27

**Sheila Giardini Murta, Larissa Nobre-Sandoval, Danielle Aranha Farias, Karina Daumous Duailibe and Viviane Paula Rocha**

***Brazilian adolescents transfer for their lives what they learn in the Strengthening Families Program? A short-term descriptive analysis.***

Speaker: Danielle Aranha Farias

The Strengthening Families Program (SFP 10-14) has been implemented in Brazil since 2013 as a family-based social technology for drug abuse prevention. This study aims to understand to what extent adolescents apply the content learned in the program to their lives. In-depth interviews were applied at the end of the intervention to 24 adolescents aged 10 to 14 years (15 females, 9 males). The data was analyzed through thematic analysis and calculation of the frequency of reports. Most of the participants ( $N = 20$ ) reported applying skills learned in the intervention to their everyday lives. Use of life skills, including peer pressure resistance (7 reports), problem solving (3), and critical thinking (1) were identified. It

was found that there was a transfer of the daily use of family protective processes related to control: compliance with rules and limits (6), respect for authorities (6) and increased responsibility (4). Adolescents reported transferring protective processes related to emotion in their family interactions, including improvement in communication (6), conflict management (5), family problem solving (4), family closeness (4), perception of affection (2) and emotional regulation (1). The findings also showed improvement in the perspective of future time (8). Fewer reports have been identified regarding improved school engagement (3). On the other hand, a small number of youth reported not being able to apply the learning (3) or an absence of change (1). It is concluded that such findings are compatible with the expected results in the short and medium term, such as improvement in the quality of the family relationship and life skills. More detailed analysis on low school effectiveness is recommended, as well as evaluation of the impacts of the program in the medium and long term.

## Poster 2.28

**Anna Janovska, Olga Orosova, Jozef Benka and Marcela Stefanakova**

***Norms, refusal skills and alcohol drinking among early adolescents***

Speaker: Anna Janovska

Introduction: In early adolescence, alcohol drinking can be initiated and escalate, often as a result of significant advances in one's psychological and social development. This study explored how alcohol drinking is related to self-esteem, self-control, refusal skills and personal, injunctive and descriptive norms.

Methods: Data from a representative sample of 572 elementary school pupils (gender: 50.1% male; age:  $M=13.49$  years,  $SD=0.59$  years) were collected within a project aimed at universal school-based prevention (APVV-15-0662, APVV-0253-11, KEGA 016UPJŠ-4/2017). The respondents completed the Self-Control Scale ( $\alpha=0.573$ ), the Self-Esteem Scale ( $\alpha=0.712$ ), the Refusal Skills Scale ( $\alpha=0.899$ ) and they were asked about their personal, injunctive and descriptive norms of alcohol drinking. Binary logistic regression was used to explain their self-reported alcohol consumption, dependent variable was dichotomized (they have never drunk alcohol or have drunk only once; they have drunk alcohol multiple times).

Findings: Alcohol drinking of adolescents was found to be positively associated to personal norms ( $p=0.001$ ,  $OR=0.458$ ), social injunctive norms (parents:  $p=0.012$ ,  $OR=0.540$ ; personal:  $p=0.025$ ,  $OR=0.650$ ) and refusal skills ( $p=0.003$ ,  $OR=0.896$ ) as well as positively linked to descriptive norms concerning drinking of their peers ( $p=0.001$ ,  $OR=2.122$ ). The associations between alcohol

drinking and self-esteem, self-control and social injunctive norms concerning friends were not statistically significant. Our data support the existence of gender differences ( $p=0.041$ ,  $OR=2.120$ ), i.e. boys tended to drink more often than girls.

Conclusion: The study confirmed the importance of prevention programmes that influence the formation of norms concerning alcohol drinking and develop adolescents' refusal skills.

## Poster 2.29

**Elena Gervilla, Rafael Jiménez, Albert Sesé, Juan José Montaña, Alfonso Palmer and Joella Anupol**

### *A methodological explanation of Decision Tree and Random Forest techniques to predict alcohol use*

Speaker: Elena Gervilla

Data Mining is the process of discovering “interesting, unexpected or valuable structures in large databases” and add new ways of analysing data and representing results. While the main body of the analysis in the field of substance use has been done with classical statistical techniques, few studies use Data Mining tools. The aim of this study is to present the advantages of two Data Mining techniques to predict alcohol use: Decision Trees and Random Forests. 307 participants (organized into 62 natural groups of friends) who were drinking in the streets of Palma de Majorca were interviewed (44% women) (median age=21 years, range=21). We assessed Breath Alcohol Concentration (BrAC) to have an objective measure of alcohol concentration (mg/L) and the Alcohol Use Disorders Identification Test (AUDIT). Participants also reported their drunkenness' perception (10-point Likert scale) and socio-demographic information. We run classical models, Decision Trees (DT) and Random Forests (RF). DT create sequential partitions of a dataset that maximise the differences of a response variable. DT show in a graphical way how the analysed variables interact to predict BrAC. RF displays the most important variables in the prediction of alcohol use. Through this example, models' performance is analyzed, explained and compared with classical models. Data mining techniques are useful techniques to study alcohol use risk and protective factors. The advantages and disadvantages in contrast to classical techniques are discussed.

## Poster 2.30

**Jozef Benka and Olga Orosova**

### *Inter-individual differences in autonomy and autonomy support in relation to alcohol use among university students*

Speaker: Jozef Benka

Introduction: Autonomy and support of autonomous self-regulation have been shown to be important determinants of well-being and health-related behaviors prospectively and across different domains (Ng et al, 2012). Moreover, understanding the persistence of healthy behaviors is a key issue of every successful preventive activity. This study uses the concept of Self-determination theory and focuses on intrapersonal and environmental factors of autonomous self-regulation and explores their associations with alcohol use among university students.

Methods: The data used in the analysis consisted of 697 university students (Mean age = 21.28; SD = 1.93; 60% women) studying in Slovakia. Autonomy was measured at two conceptual levels. Firstly, it was assessed at the level of inter-individual differences by the Index of Autonomous Functioning consisting of three subscales: Authorship/self-congruence, Interest-taking and Susceptibility to control (Weinstein et al. 2012). With regard to autonomy support from the environment, three types of autonomy support were addressed: Promotion of autonomous thought (Silk et al. 2003), Promotion of autonomous decision-making (Grolnick et al. 1997) and Physical separation scale addressing the pressures and controlling/manipulative behaviors. The Alcohol Use Disorders Identification Test was used to address alcohol use (Barbor et al. 2001; Maisto et al. 2000). A linear regression was used as the main statistical method.

Results: The results of the linear regression analysis showed that after controlling for age and gender alcohol use was negatively associated with the Authorship/self-congruence ( $\beta=-0.174$ ;  $p\leq 0.001$ ) on the level of inter-individual differences and with physical separation ( $\beta=-0.135$ ;  $p\leq 0.001$ ) on the level of autonomy support from the environment. Other measured aspects of autonomy did not produce significant results.

Discussion: Although the interpretation of the results cannot overcome the limits of the correlational design, the findings of this study show that both levels of autonomy were in its important aspects associated with alcohol use. On the level of interpersonal differences, it was the tendency to integrate one's experiences and on the level of the environment, it was the processes undermining individual's autonomy. The interplay of these factors and their interaction can further increase the understanding of the role of autonomy in the context of prevention science.



## Poster 2.31

**Miranda Novak, Martina Feric, Valentina Kranzelic, Josipa Mihić, Helena Križan and Irena Velimirović**

### *Positive development of adolescents*

Speaker: Miranda Novak

During the year 2017, Croatian Laboratory for Prevention Research has conducted a project Positive Development of City of Zagreb's Youth – state of the art. Purpose of the project was to explore the positive development and risk behaviour of adolescents. In addition to the insights into the risk behaviour of young people, a picture of strengths and challenges at the individual level and at the level of environments in which young people live was gained (family, school, community). Constructs also included internalized problems, the family and individual resilience of students, social-emotional competences, school attachment as well as mindfulness. The aim of this paper is to present the conducted research as an example of science to practice efforts.

The research intended to obtain quality epidemiological data on adolescents that could serve as a foundation for preventive interventions planning. A representative sample of the survey included 4821 students from 24 secondary schools in Zagreb, Croatian capital. Age of the participants was 14 to 19 (48.2% female and 43.7% were male). Data from 4821 students in the Zagreb City area indicates a high prevalence of alcohol consumption (21.8% of the participants use alcohol once or twice a week) while cannabis is used once or twice a week by 6.1% of the participants. Peer violence is also present, as many as 37% of the survey respondents report that they have witnessed their peers being abused in last 4 weeks, and 17% of them have been exposed to peer violence themselves. 27,2% of participants reports they have been hopeless during last two weeks, 9,4% have made a plan how to commit suicide while 4,4% of participants have reported suicidal attempt. School attachment of children is quite low while their perception of family protective factors is quite high. 12,2% of participants report upon serious depressive symptoms, 22,2% report upon severe anxiety symptoms and 7,5% report upon severe stress symptoms.

The purpose of the paper is to present the starting point for continuous monitoring of the needs of adolescents in Croatia, aiming national monitoring and data that could serve as a starting point for youth intervention planning.

## Poster 2.32

**Kristin Feltmann, Johanna Gripenberg and Tobias Elgán**

### *Sales of tobacco cigarettes to pseudo-under age mystery shoppers*

Speaker: Kristin Feltmann

Introduction: Preventing the onset and reducing the number of adolescents who smoke and develop an addiction is a great public health concern. To reduce availability of tobacco the purchase age limit is 18 years in many countries, including Sweden. According to the tobacco law in Sweden, sales clerks have to ensure that the customer is of age by performing ID checks. Aim: To study the prevalence of sales clerks' denial rates of tobacco sales to underaged.

Method: Nine mystery shoppers (females and males) attempted to purchase cigarettes without providing an ID. The mystery shoppers were 18, but had a younger appearance as judged by an expert panel. During each attempt the adolescents were working in pairs, one acting as the shopper and the other as the observer. 320 tobacco sales outlets were randomly selected from 12 municipalities in Stockholm County and 287 purchases attempts were conducted. Types of outlets were grocery stores, gas stations, convenience stores and kiosks.

Results: In 25% of the purchase attempts cigarettes were sold although no valid ID was provided by the mystery shopper. Female shoppers were significantly more successful in the purchases than male shoppers. In 10% of the attempts, the sales clerk sold cigarettes after requesting, but not receiving, an ID. Age-limit signs were observed in 90% of the outlets. A successful purchase attempt was significantly associated with the lack of age-limit signs.

Conclusion: Our results indicate that under-age adolescents who want to buy cigarettes could find an outlet that sells to them rather easily. The poor adherence to the tobacco law, might fail to protect adolescents from smoking cigarettes. Hence, there is a need for implementing strategies to prevent sales of tobacco to underaged.

## Poster 2.33

**Simon Russell, Helen Croker and Russell Viner**

### *Quantifying the effect of screen advertising on dietary intake in children*

Speaker: Simon Russell

Food and drink marketing is a large global industry

and evidence indicates disproportionate marketing of products high in sugar, fat and salt. While use of media is changing, especially among young people, children in England remain exposed to high volumes of advertising, particularly of unhealthy food and drinks. There has not been a review to date which considers experimental and 'real world' studies or that separately analyses the impact of TV and advergame advertising in terms of caloric intake in children. A rapid systematic review of the quantitative effect of screen advertising on children's dietary intake and obesity was undertaken with the main aim of estimating the effect size in experimental and non-experimental (real world) settings. In April 2018, systematic searches were undertaken of scientific and economics databases; search results were imported into EPPI-Reviewer 4 software to facilitate the review and apply a machine learning approach to screening. A total of 40 papers met the inclusion criteria, 25 with measured outcomes (experimental) and 15 with non-measured outcomes (non-experimental) for dietary intake. Meta-analyses were conducted for studies with measured outcomes where food advert exposure could be compared to non-food advert exposure. Food advertising was found to increase dietary intake among children (age range 2-14, mean 8.8 years) in experimental conditions for both TV and advergame advertising by 61 and 53 kcals respectively; an effect by BMI group was also found. Findings from non-experimental studies found exposure to TV food advertising to be positively associated with and predictive of dietary consumption in children. This review shows that short-term exposure to unhealthy food advertising on TV and advergames increases immediate calorie consumption, and that food advertising on TV is predictive of greater dietary intake among children. The findings of this research are likely to have notable implications for prevention policy and practice.

## Poster 2.34

**Isotta Mac Fadden, Cristina Quesada Villalba, David Rubio, Flavio Marsiglia and Stephen Kulis**

*The cultural adaptation process of the efficacious prevention keepin'it REAL program in Spain*

Speaker: Isotta Mac Fadden

Keepin'it REAL (Mantente REAL) is an efficacious prevention program developed and evaluated through several RCTs in the USA, Mexico, Guatemala and Uruguay. A pilot study of the intervention in Seville-Spain in 2016 identified the need for a cultural adaptation of the curriculum for Spanish secondary school students. The proposed oral presentation will provide a summary of the cultural adaptation process conducted in 2017-2018 in response to the findings of the Seville's Mantente REAL

pilot study (N=259 high school students). The finding highlighted the need to integrate the lived experiences of Spanish youth. The qualitative analysis of transcripts of the students' focus groups provided the basis for the adaptation process. One of the main themes that emerged from the focus groups was the need to incorporate unique Spanish risk and protective factors: 1) risky situations and contexts, 2) adolescents' perceptions of risks and 3) family and peers as protective and risk factors. Students, teachers, administrators and parents of two high schools of Seville actively participated in all phases of the adaptation process. Including a comprehensive editing of the teacher and student manuals and the production of five new educational videos. The purpose of this presentation is also to reflect on the adaptation of the videos as a prevention process in itself: the students who have participated in the process have reflected among peers, have become aware of exposure to risks, have learned to use the strategies on which they have worked. In partnership with the ASU team, Seville researchers preserved the core elements of the original intervention. The experience of creating Mantente REAL-Seville contributes to adaptation and prevention science by improving the cultural fit of an efficacious intervention in a different social and cultural context. Such level of local involvement supports its applicability and sustainability. Future research will test the efficacy of the new adapted version through an RCT in Andalusia and Galicia.

## Poster 2.35

**Yulia Shenderovich**

*Moderators of Treatment Effects in a Parenting Intervention Study in South Africa*

Parenting interventions are a promising approach to improve parenting, and to prevent and reduce child maltreatment. This study was nested within a cluster-randomised trial of Sinovuyo Teen parenting programme in the Eastern Cape Province, South Africa. The programme was developed in collaboration between researchers, UNICEF, the World Health Organisation, local NGOs, and the South African government.

Previous research has found mixed results on whether the most disadvantaged families benefit as much from parenting interventions as families with more resources, and very few studies examine this question in low- and middle-income countries. This paper aims to examine whether different families were able to benefit to a similar extent from Sinovuyo Teen in regard to parenting skills and child maltreatment by caregivers in high-risk families with adolescents aged 10-18.

Caregiver and adolescent reports from baseline, post-test, and follow-up at 5-9 months after the intervention were analysed using intention-to-treat longitudinal multilevel

analyses (N=552 families). We tested seven moderation effects for each of the primary outcomes.

Overall, the intervention group showed significant improvements on a number of outcomes. In total, thirteen moderator effects were statistically significant, but none remained significant after correcting for multiple comparisons testing. Hence, our study suggests that parenting interventions in low- and middle-income countries can be similarly effective for the most disadvantaged families.

## Poster 2.36

### Kristian Rognstad

#### *Core components of measurement feedback systems*

Over the last decade, there has been a growing interest in the use of measurement feedback systems (MFS) in intervention research and practice. This has led to the development of several different systems, as well as studies on these systems to determine their effect. Many of the MFS have obvious similarities, but there is also a great deal of variation, including, the type of data collected and how it is presented to the therapist, degree of implementation support, etc.

We plan to assess the evidence for the different components that make up the variations in MFS – i.e. identify “core components”. Generally, the first step in identifying core components is to find all MFS effect studies that have been conducted. Second, one needs to break the reported systems into meaningful components, and finally, one can evaluate the evidence for the identified components. However, Lyon et al. (2016) has recently compiled a comprehensive list of the capabilities and characteristics of available MFSs and the frequency of these components' usage. Because Lyon et al. (2016) have recently addressed these first two steps, we will therefore be able to forego these primary steps and start with step three: considering the identified component evidence.

Building on the work by Lyon et al (2016), we intend to review the effects different MFS components have on clinical outcomes, therapeutic alliance, and client satisfaction. For this purpose, we will replicate the search from this review to update it to include studies over the past two years. Furthermore, we will group all studies together to investigate which components correlate with positive effects.

An overview of core components of MFS can both be a good tool for developers and clinical administrators, and function as an indicator for future research.

## Poster 2.37

### Thuraya Ismail, Anthony Abi Zeid, Bechara Ghaoui and Nadine Abdallah

#### *Unplugged - Drug Addiction Prevention School Based Program in Jordan*

Speaker: Thuraya Ismail

Background: UNPLUGGED is a school-based drug prevention program for adolescents between 12 and 14 years of age and is based on the cognitive social influence model. The innovative aspects of UNPLUGGED is that it has been developed in a cooperation of seven EU-countries known as the EU-Dap project and evaluated for effectiveness during an earlier phase. Mentor Arabia implemented the program in Jordan schools.

Method: Nationwide trainings were conducted in Jordan with 50 participants representing various stakeholders and constituting the national team, and 60 teachers reaching 8,200 students in 2016. In 2018, 260 teachers were trained reaching 52,000 students. Attitudes of youth targeted by were compared to a control group, taking into consideration various demographic variables.

Results: Results attested that Jordanian students who followed the unplugged program demonstrated strong prevention attitudes compared to the control. The program is now adopted by the Jordanian Ministry of Education.

Conclusions: The program confirmed patterns in the relationship between life-skills based prevention programs and anti-drug attitudes; showing that life-skills acquisition at a young age is directly related to prevention behaviors.

Main Messages: Schools are appropriate settings for alcohol, illicit drugs and tobacco use prevention; School staff can target youths at a young age before their beliefs about smoking have been established; School general curricula in itself can be used as part of a preventive approach, for instance a positive school climate is a protective factor against drug abuse.

## Poster 2.38

**Ana Magdalena Vargas-Martínez, María Parra-Gallego, José Manuel Martínez-Montilla, María Del Carmen Torrejón-Guirado, María Isabel Acuña San Román, Francisco Vega-Rodríguez and Marta Lima-Serrano**

### *Social determinants of binge drinking of Spanish adolescents according to gender*

Speaker: Marta Lima-Serrano

**Background and objective:** The National Plan on Drugs defines binge drinking as the consumption of 5 or more alcoholic beverages in a single occasion of consumption, in an approximate interval of 2 hours. Historically, alcohol consumption has been associated with the male gender, however, in recent years there has been a rebound in the use of this substance by women, especially in adolescents. Despite this, there are still stigmatizations regarding gender. **Objective:** to analyze the socioeconomic factors related to Binge Drinking according to gender.

**Methods:** The study sample is part of a two-arm Cluster Randomized Controlled Trial (CRCT) with an experimental (EC) and a waiting-list control condition (CC) randomized at the school level, using a web-based computer-tailored program to prevent binge drinking (BD) in adolescence, known as ALERTA ALCOHOL. Analysis were carried out in Andalusian adolescents between 15 and 19 years of age. Panel data were required for the multivariate regression.

**Results:** The total sample consisted of 1247 subjects in the pre-intervention period and 612 adolescents in the follow-up period. In girls, the age, weekly pocket money, being cannabis user, a major number of cigarettes per week and friendly pressure to do binge drinking resulted to be risk factors of BD. On the other hand, in boys, the age, father's schooling years, being smoker, family and friendly pressure to do BD, were risk factors to BD. In relation to protective factors, in both boys and girls, family functionality and having partner were statistically significant.

**Conclusion:** There are not many differences according to gender. It seems clear that being smoker is related to being binge drinker, such as the increase of age. However, it seems that the family environment affects more boys than girls. Although in girls, it is important to highlight that these with higher weekly pocket money the consumption of alcohol is higher too. This finding could be taken into account in developing preventing strategies that should have genders perspective. However, strategies to prevent binge drinking should include the family regardless the gender.

## Poster 2.39

**Cátia Magalhães, Margarida Gaspar de Matos and Karen Bluth**

### *A pilot study of a Mindfulness and Compassion Program for Portuguese Adolescents: adaptation and efficacy study.*

Speaker: Cátia Magalhães

1 out of 5 adolescents will experience a significant psychological problem while studying (Stuart, 2006), and also most mental health problems manifest themselves in adolescence being treated only later (Kelly, Jorm, & Wright, 2007). Adolescence is an ideal time to acquire knowledge and skills that leak into adult life, that make important to develop health promotion programs and increase mental health. Hence, would be important to test a mindfulness-compassion intervention, because will meet one of the priority areas for the promotion of healthy lifestyles identified by the National Mental Health Plan-DGS and National School Health Program. Although there have been no self-compassion programs designed to fit emotional and development needs, interests and challenges of adolescents. In this sense, the program that will be tested in this study was adapted from the adult Mindful Self- Compassion created and endorsed by Neff and Germer. The purpose of this research is to test feasibility, acceptability and effectiveness of mindfulness self-compassion program for Portuguese adolescents. Additionally, identify relevant psychosocial outcomes associated with the intervention with adolescents. The design is a pre-/post-pilot intervention study, repeated measures, with a mixed-methodology embedded design-qualitative and quantitative data and measures. It is planned to involve 40 participants (ages 12/13 to 17) from high schools of the region center of the country) in the implementation of the program) The instruments will be administered at baseline and post-intervention and will include program and outcomes evaluation (such as, anxiety, depression; stress; mindfulness and compassion adolescents scales; Social connectedness; psychological inflexibility...). Will be conducted descriptive statistics; paired t-tests will conduct to examine change in outcome measures before and after the intervention; hierarchical regressions to examine whatever changes in mindfulness and self-compassion predicted changes in psychological outcomes. It is expected based on review literature that: program would be feasible, acceptable and effective for Portuguese adolescents; a positive perception of the intervention relating to the participants' roles; also indicated that mindfulness, self-compassion, perceived stress, and life satisfaction improved from pre- intervention to post-intervention for adolescents that assigned to the program; Mindfulness and self-compassion would independently predict changes in psychosocial outcomes measures.



## Poster 2.40

**Sheila Giardini Murta, Larissa De Almeida Nobre-Sandoval, Viviane De Paula Rocha, Ana Aparecida Vilela Miranda and Luís Gustavo Amaral Vinha**

### *Pathways to the continuity or discontinuity of the Strengthening Families Program in Brazil: the perspective of the group leaders*

Speaker: Sheila Giardini Murta

The sustainability of preventive programs in health policy is one of the main challenges for health research and management. In 2013, the Ministry of Health initiated a family-based drug abuse prevention program, the Strengthening Families Program (SFP 10-14), which has been implemented in Brazil for economically vulnerable families. However, after a large-scale implementation effort for several Brazilian states, a slowdown in the execution of SFP 10-14 has been observed in the current year. In this scenario, it becomes relevant to understand the pathways that can favor the continuity or discontinuity of this program as a drug policy preventive tool. This study aims to understand the barriers and facilitators for the sustainability of this program in Brazil. 153 group leaders, who are responsible for offering sessions for adolescents, caregivers and families, answered a questionnaire with open questions regarding reasons for the continuity or the interruption of the program in Brazil. Content analysis revealed nine barriers to sustainability: organizational capacity (75 reports), political support (26), adaptation of the program (25), family adherence (21), strategic planning (8), partnerships (2), communication (1), stability of funds (1) and evaluation of the program (1). In turn, the facilitators identified were organizational capacity (58 reports), public health impact (49), partnerships (26), political support (11), strategic planning (3), program adaptation (2) and communication (1). In conclusion, these findings indicate that routes to success in the sustainability of SFP 10-14 in Brazil could be constructed with investments in organizational capacity, political support, program adaptation, recruitment and adherence of families and partnerships. On the other hand, neglect of these factors could undermine its maintenance. Positive impacts of the program could be utilized as inducers of action for advocacy.

## Poster 2.41

**Víctor José Villanueva and Elisardo Becoña**

### *Efficacy of the STM program in prevention of drug use in adolescents*

Speaker: Víctor José Villanueva

This study investigated the effectiveness of a universal drug prevention program, the STM program, for the consumption of drugs (alcohol, tobacco and cannabis) in adolescents. The STM is a multimodal program with components of social influence and life skills, using an interactive methodology. It is a controlled, quasi-experimental, non-random, longitudinal study with two measurement times. Participants were 893 high school students. Results show that the STM program is effective to reduce the frequency of alcohol and cannabis use, and moderate the increase of tobacco use and binge drinking, in the last 30 days. There is a differential effectiveness depending on the drug.

## Poster 2.42

**Sheila Giardini Murta, Priscila Oliveira Parada, Sara Da Silva Menezes, João Victor Venâncio Medeiros, Amanda Balbino, Marina Caricatti, Marco Akira Miura, Thiago André Araújo Dos Santos and Hein De Vries**

### *"SOS Namoro": a systematic and theory-based development of a web-based tailored intervention to prevent dating violence among Brazilian youth.*

Speaker: Sheila Giardini Murta

Dating violence has an alarming prevalence among Brazilian adolescents. School-based preventive programs have been implemented, but remain to be isolated initiatives with low reach. Health education strategies based on innovative technologies with a high potential of diffusion are urgent. This study aimed to develop a computer-tailored intervention to prevent victimization and perpetration of dating violence among Brazilian youth. The intervention, called SOS Namoro, is based on the I-Change Model and Attachment Theory and is a universal preventive program targeted to adolescents with a current partner. According to the I-Change Model, it is expected that the users will increase their knowledge of dating violence and quality of relationships; decrease attitudes of violence tolerance; criticize social norms that endorse sexist practices; identify sources of social support; distinguish positive from negative romantic relationships models; and improve self-efficacy to implement protection plans in the face of violence. According to the Attachment Theory, it is

assumed that the intervention will favor responsiveness and management of conflict skills. The design included a needs assessment; a definition of objectives of change; development of the library of messages; elaboration of a questionnaire for tailoring feedbacks according to the relevant variables; integration of the content in the software Tailor Builder; pre-testing; and usability and efficacy evaluation planning. As a result, an intervention composing of four online sessions was developed. Session 1 gives a tailored orientation on attachment style and risk perception of violence. Session 2 addresses knowledge on conflict management, intimate relationships models and an action plan to improve everyday interactions. Session 3 covers social norms, self-efficacy and an action plan to cope with conflicts. Session 4 discusses attitudes, social support and an action plan to protect from violence. Improvements on the interface and tailoring refinement was done after pre-testing to improve attractiveness and decrease risk of iatrogenic effects. The intervention usability and efficacy should be investigated in further studies.

## Poster 2.43

**Wadih Maalouf, Johannes de Haan, Aspasia Plakantonaki and Peer van der Kreeft**

***Developing Prevention Through Sport Settings: a multi-site trial of a sport-based life skills program for the prevention of drugs, crime and violence amongst youth***

Speaker: Wadih Maalouf

Line Up Live Up! is a 10-session open-source and evidence-informed intervention that responds to a need for evidence on the impact of sport on substance abuse or on mediating factors among children, as identified in the UNODC WHO International Standards on Drug Use Prevention. Line Up Live Up is a universal prevention program for 13-18 years old youth in marginalized and low-resource communities with mixed levels of risk for crime-, violence- or drug-related behavior. Each of the 10 sessions includes sport activities and debriefing sessions aimed at strengthening life skills in order to achieve changes in attitudes and behavior to prevent crime, violence and drug use. It is evidence informed as it is: a) constructed on the basis of the International Standards on Drug Use Prevention as well as the Standards on Crime Prevention; b) inspired by the evidence of the UNP:UGGED school intervention and adapted to fit a school-based or out-of-school sport context; and c) enriched with inputs from consulted experts in the field of crime, violence and drug use prevention. This presentation will give an overview of the piloting of Line Up Live Up that has been carried out so far in South Africa, Brazil and Kyrgyzstan through the delivery of training of trainers for sports coaches, teachers

and others working with youth in sport setting, and through training roll out to youth. In addition, an overview will be provided of the data collected through process evaluation and of the tools developed to measure impact of the training programme.

## Poster 2.44

**Yasemin Kisbu-Sakarya and Thomas D. Cook**

***Comparative Regression Discontinuity: A Demonstration of its Performance with Small Samples***

Speaker: Yasemin Kisbu-Sakarya

Regression discontinuity design (RDD) assign individuals to conditions using a cutoff score on a continuous assignment variable (e.g., poverty level for receiving a health care program). Individuals on one side of the cutoff score receives the treatment, and individuals on the other side usually receives no treatment - the control condition. It is considered to produce closest results to randomized controlled trials since the selection mechanism is known. However, the limitations of basic RDD are considerable: (1) in expectation, its results are unbiased only at the treatment cutoff and not for the entire study population; (2) it is less efficient than the randomized trial and so requires more cases for the same statistical power; and (3) it requires correctly specifying the functional form that relates the assignment and outcome variables. One way to overcome these limitations is to add a no-treatment functional form to the basic RDD and including it in the outcome analysis as a comparison function rather than as a covariate to increase power. Doing this creates a comparative regression discontinuity design (CRD). Recent studies comparing randomized trials, RDD, and CRD causal estimates have found that CRD reduces imprecision compared to RDD and also produces valid causal estimates at the treatment cutoff and also along all the rest of the assignment variable.

The present study seeks to replicate these results, but with considerably smaller sample sizes. A within-study-comparison study where the treatment effect estimates coming from a synthetic RDD and CRD is compared to the estimates coming from a randomized controlled trial is conducted. The power difference between RDD and CRD is replicated, but not the bias results either at the treatment cutoff or away from it. To conclude, we highly recommend the use of CRD instead of RDD in prevention research. Yet, researchers should be cautious about using CRD without large samples.

## Poster 2.45

**Sacha Parada and Jean-François Verlhac**

***A Health Behaviour Change Model applied to Technology use: Implementation into a Prevention Service for French Elderly People.***

Speaker: Sacha Parada

The aim of our work is to apply research findings in health, motivation and technology use into the development of a technological prevention service toward elderly (above 50 years old). Yealth is a French start-up aiming at preventing Frailty (physical vulnerability) among seniors by assessing their weight, muscular health, day to day physical activity and energy, and developing personalized coaching programs to help them maintain and improve their health. Participants (1000 seniors expected by the end of the year) are equipped with an actimeter, a scale impedancemeter, and a dedicated tablet aggregating the data. The tablet is presenting data, informative messages, coaching programs, and self-reported measures (e.g. motivation; perceived utility) to the user.

The need for prevention is real (longer independent living for the population and cost saving for institutions), and frailty an acute health issue. But even if the service developed is adapted to answer this problematic, several pre-requisite from the users are needed for it to be effective: motivation (to adopt right behaviours) acceptance (of the technology) and observance on the long term (several years). Moreover we know that more than 70% of new health apps users' dropout after 2 weeks (Endeavour Partners study, 2014). Hence to make sure that the service is used to its maximum potential, we propose to elaborate a model encompassing and bridging known theories of health, motivation and technological acceptance to guide the development of the service and its functionalities.

The base structure of the model originates from the Behavior Change Wheel (Michie, 2011) and the Transtheoretical Model of Health Behaviour Change (Prochaska & Velicer, 1997). We used those general models to build two axis: sources of behaviour (Motivation, Capacity, Opportunity); and stages of change (Contemplation, Determination, Action and Maintenance). On those 2 axis we integrated existing motivational models (e.g. Health Belief Model, Self-determination theory) and well-tested interventional tools (e.g. planning, regulatory feedbacks) to characterize the motivational application of each new functionality. We then used technology acceptance literature recommendations to further precise the design of each functionality.

In the future we will assess the efficacy of the service based on this model's factors.

## Poster 2.46

**Jakub Gren, Agnieszka Pisarska, Krzysztof Bobrowski and Krzysztof Ostaszewski**

***Factors associated with alcohol use and other risky behaviours among Polish high-risk youth. A pilot study***

Speaker: Jakub Gren

Introduction: Polish youth who have various problems are referred to special educational centres (for youth with antisocial behaviors and school problems, called Youth Correctional Centres "MOWs" and for youth with mental and school problems, called Youth Sociotherapy Centres "MOSes"). The prevalence of alcohol use and other risky behaviours are much more higher in these centers compared to youth attending ordinary schools. Therefore, those students have significantly higher risk of developing problems related to alcohol use and other risky/problem behaviours. This study aims to increase knowledge about psychosocial and behavioral risk and protective factors associated with alcohol use and other risky behaviours among Polish high-risk youth. The presented research will be continued in a much larger sample of students from special educational centers in Poland.

Method: The pilot study sample included 390 students (71% men) aged 12-20 years from 8 MOWs (52% of the sample) and 5 MOSes. All these centers were from Warsaw or Masovian district. The self-administered anonymous questionnaire have been completed in classrooms.

Results: Results showed that among students attending special educational centers risk factors predominated. Alcohol and other drug use (cigarettes, cannabis, NPSes and other), drunkenness, alcohol-related problems and problematic behaviours were significantly correlated with negative social influence (peer's approval of risky behavior, perceived substance use among friends and non-familial adults) and individual factors (subjective norms favorable for substance use and sensation seeking). The only protective factor was parental monitoring which was negatively correlated with problematic behaviors. Surprisingly, peer's support was positively correlated with alcohol and other drug use, drunkenness and alcohol-related problems among students from MOSes and parental support was positively correlated with alcohol use, drug use, drunkenness and problematic behaviours among students from MOWs, which may indicate the specifics of these educational settings.

Conclusion: The results described in this paper indicate that special interventions are needed to prevent and reduce escalation of alcohol use and other risky and problem behaviours among youth attending these special centers.

## Poster 2.47

**Helene Eng, Charlotte Reedtz and Monica Martinussen**

*Translating evidence into practice. The challenge of preparing comprehensive systematic reviews and communicating evidence in a simple and useful way: Experiences from the Norwegian open access journal Ungsinn*

Speaker: Helene Eng

**Background:** There is a general agreement that clinical practice and preventive efforts should be evidence-based. This requires that practitioners and decision makers have easy access to information about available interventions and their effectiveness.

**Aim:** To present the rating system used by Ungsinn to evaluate interventions, and describe how the findings are communicated online through articles, newsletters and Facebook. Also, to evaluate the use of Ungsinn by Google Analytics.

**Method:** Ungsinn ([www.ungsinn.no](http://www.ungsinn.no)) is a Norwegian scientific open access journal that publishes systematic reviews about the evidence of psychosocial interventions for children and young people. Through the articles we aim to produce systematic and comprehensive reviews where aspects such as the description and theory of the intervention are described in addition to ratings of the effectiveness and implementation quality. In order to facilitate the knowledge transfer process, the results from the review is summarized in terms of one of six levels of evidence, from 0 = "ineffective intervention" to 5 = "strong evidence of effectiveness". In addition, the findings are presented in online newsletters and on facebook.

**Results:** To date, 43 interventions have been reviewed and classified. The number of page views has increased from 15000 in 2009 to 66.000 in 2017. Gradually, the practice field has started to use the website, and it is being cited in national reports and guidelines.

**Discussion:** Even if we now have an overview of the evidence, some of the most used interventions in Norway, are still without any evidence of their effectiveness. In this presentation, we will discuss potential mechanisms influencing the choice of interventions by the services, and how Ungsinn may be used to further inspire the use of evidence-based interventions.

## Poster 2.48

**Geertje Leflot and Hilde Colpin**

*Improving teacher behavior management and peer relationship quality: Effects of the Flemish adaptation of the Good Behavior Game*

Speaker: Geertje Leflot

The Good Behavior Game (GBG) is a universal, group-based intervention intended for elementary school classrooms. In line with learning and social learning theories, it aims to prevent disruptive behavior through improving teachers' behavior management and relationships among peers. Whereas many studies have shown positive GBG-effects on students' behavior, studies on the presumed working mechanisms are scarce. This study investigated whether the Flemish adaptation of the GBG improves teachers' behavioral management and peer relationship quality. In a quasi-experimental study among 728 students from Grade 4 to 6 and 106 teachers in ten Flemish elementary schools (M age = 10.26 years, 51,2% boys), teacher, student and peer reports were administered at the beginning and at the end of the school year. In the intervention condition (five schools), the GBG was implemented during that school year, while the control condition (the other five schools) received education as usual. Multilevel regression analyses (level 1: student, level 2: class) showed stronger improvements in self- and student-reported teacher behavioral management in the GBG classrooms. The GBG effect on peer relationship quality was dependent on the students' initial level of problem behavior. In the control classrooms, peer relationship quality decreased for children with high initial problem behavior, while it remained constant in the intervention group. These findings add to the scarce direct evidence that the GBG improves teacher behavior management. Second, they suggest that the GBG can buffer negative effects of problem behavior on children's peer relations, and thus protect children at risk even without providing them with targeted or individualized interventions. Finally, this study adds to the growing evidence for the effectiveness of adapting evidence-based school interventions to the local educational context in which they are implemented.

## Poster 2.49

**Víctor José Villanueva and Elisardo Becoña**

*Strategies for the integration and promotion of scientific evidence in the applied field of prevention*

Speaker: Víctor José Villanueva

School-based preventive strategies that have been evaluated have tried effective in improving aspects



of adolescent health, such as nutritional aspects, sexual health and the prevention of substance abuse. Systematic reviews and meta-analyses indicate that models, components and strategies do better. However, the transfer of this evidence to the design of preventive programs, as well as the monitoring of its implementation and subsequent evaluation, continue to be areas that require improvements in systematization and effective applicability.

Based on the general principles of effective prevention, quality criteria and good practices established in the European context, a basic tool is proposed for process management of the different assignment that must be planned within the framework of a program to ensure its quality. The STM model of management of preventive programs is oriented to the integration and promotion of scientific evidence in a transversal way in the different phases of the planning process of a project, establishing for each one of them the contents and assignment that must be incorporated, as well as the derivative products after their completion.

Likewise, the STM model, developed from the proposal of European standards of quality in drug prevention elaborated by the European Monitoring Center for Drugs and Drug Addiction (2011), empower prevention technicians and program managers to carry out a check of these quality standards in those processes to which it is linked. Consequently, the STM model can be a strategy to consider in program accreditation policies.

## Poster 2.50

**Lluís Ballester, Carmen Orte, Josep Lluís Oliver, María Valero and Victoria Quesada**

### *Different profiles of family dynamics in a program for the selective prevention of substance use in adolescents*

Speaker: María Valero

**Introduction:** Family dynamics are a key factor in family-based prevention programmes, especially in vulnerable population. Effective interventions to prevent drug use in adolescents often work to change family dynamics. There are many types of vulnerable families and the programmes do not always equally respond to the needs of all the participants.

The objective of this study is to identify and explain the different profiles of family dynamics of the participants who took part in The Family Competence Programme (PCF) 12-16. This paper focuses on the benefits obtained by the participating families and pays attention to the heterogeneity of these benefits.

**Methodology:** A pre-test post-test quasi-experimental design with control group was implemented. This study was conducted in the Balearic Islands between 2015 and 2016. During this period N=69 families took part in the PCF. K-means cluster analysis was used to identify family dynamics' profiles.

**Results:** The scales used to discriminate the clusters were resilience, parent-child relationships, family cohesion and family organization. 56 families (81,16%) obtained good scores with high and mid-to-high scores in the aforementioned scales. Only 13 (18,84%) of the participant families presented a low profile of family dynamics. Overall, the main results showed four types of family dynamics: competent (18 families), poor organization (29 families), poor communication (9 families) and improvable skills (13 families).

**Conclusion:** The results highlight the existence of different subgroups with specific profiles in family dynamics at the end of programme. The families that participated obtained differential improvements in their family dynamics, which portrays their different needs. This fact allows us to open new avenues of investigation about the effectiveness and implications in the application of the programme or the design of the booster sessions.

## Poster 2.51

**Valentina Kranzelic, Helena Krizan, Martina Feric, Zoran Zoricic, Daniela Vojnovic, Sanja Jelic and Antonija Zizak**

### *From complex needs to complex intervention – example of FamResPlan research project*

Speaker: Valentina Kranzelic

The overall objective of the research project Specific characteristics of families at risk: contribution to complex interventions planning (FamResPlan) is to identify characteristics of specific groups of families at risk - their risk factors, readiness for change and intervention, and the life satisfaction of family members. As a set of new, under-studied processes placed in the context of the family resilience concept, project findings could be of importance for complex interventions planning. The comprehensive FamResPlan study of families at risk is being conducted at the moment and the sample will consist of 200 families with various complex needs for intervention and support that have at least one member with serious behavioural problems. The aim of this presentation that has been fully supported by Croatian Science Foundation under the project IP-2014-09-9515, is to discuss the findings regarding the complex needs of families with at least one adult member diagnosed with an addiction disorder. In the presented study, complex needs are assessed by self-report from addiction clinic patients as well as by

self-report from one of their family members. In addition, complex needs for intervention are assessed by a mental health professional from the addiction clinic. It is expected that the previously mentioned complex constructs will provide a deeper insight into the complex processes regarding intervention needs of families at risk. These insights can be used as a good foundation for developing complex interventions for this specific target group – families with one member diagnosed with an addiction disorder. As well, the results from this study should provide basic information for the development of research informed preventive interventions related to the concept of family resilience. The research data are still being collected at the time of writing this abstract, which is why the results will be presented at the conference.

## Poster 2.52

**Daniel Lloret-Irles, Victor Cabrera-Perona and Jose Vicente Segura-Heras**

***Gambling among Adolescents: preliminar evaluation of a School-Based prevention program.***

Speaker: Daniel Lloret-Irles

Introduction: 3.5% of people that gambled last year in Spain could fulfill at-risk gambling criteria. An early onset in youth has been associated with greater severity in adulthood. In this sense, recent studies show 4.9% of Spanish adolescents is at-risk criteria and 1.2% at problematic gambling (Lloret, Cabrera, Segura-Heras et al., 2016). In addition, the continuity rate of gambling, after one year, exceeds in 75% of adolescents of those that gambled one year before. Predictors usually proposed in school prevention are: Intention to gamble, Risk-Perception about gambling, Awareness about probability-Reduction of Cognitive Bias about winning, and Attitude toward gambling advertising.

Aims: To assess the efficacy of a universal prevention program for problematic gambling in adolescents (3 sessions).

Method: quasi-experimental PRE-POST test design with control group. Sample: 330 secondary education students (40.6%; mean age: 15.70, SD = .67; range: 15-17) were randomized assigned to either an experimental intervention or a control condition.

Results: Results of ANCOVA on POST-test suggested a significant difference between experimental and control groups in Intention to gamble ( $F(1,327) = 4.583, p < .05$ ), Risk-Perception about gambling ( $F(1,327) = 11.589, p < .001$ ), Awareness about probability-Reduction of Cognitive Bias ( $F(1,327) = 24.454, p < .001$ ), and Attitude toward gambling advertising ( $F(1,327) = 4.523, p < .05$ ).

Conclusion: Results of preliminary analysis encourage to continue the program in larger samples. Further longitudinal studies are needed to confirm our suggestions.

## Poster 2.53

**Daniel Lloret, Helaina Harvey, Florence Samkange-Zeeb, Claudia Pischke, Montse Juan, Mariangels Duch, Joella Anupol, Catia Magalhaes and Fernando Mendes**

***Empowering parent organizations to prevent substance use in Spain and Portugal- Aims, methods and primary outcomes of the EPOPS-project***

Speaker: Daniel Lloret

Programs addressing multiple levels, such as the social or the physical environment are expected to be more effective for substance use prevention than single-level programs. To date, family and community interventions have been less developed than school-based programs. FERYA (Familias en red y activas – Active Family Network) is a community-focused program that takes advantage of parent organizations' strength to boost intervention activities targeted at substance use at the local level. The program is based on the Social Development Model (Catalano and Hawkins, 1996), the Bronfenbrenner (1981) Human Development Ecology Model, and the empowerment development approach of organizations (Peterson and Zimmerman, 2004). The objective of this contribution is to present the EPOPS Project (Empowering Parents' Organizations to Prevent Substance use) which aims to adapt and evaluate a pilot implementation of the FERYA program in two European countries: Spain and Portugal. The program is designed to train parents to be proactive agents for prevention and to achieve impact on three levels: family, community, and social-political. Therefore, via the training of parents and leaders of parent organizations, the project aims to achieve: 1) a research-based program and protocol for the prevention of substance abuse in children, as well as a training program for the implementers, 2) an evaluation model to examine the empowerment of parents organizations, and 3) tools for the assessment of the community engagement and readiness to change in communities.

## Poster 2.54

**Esther Mertens, Maja Dekovic, Monique Van Londen and Ellen Reitz**

***Effectiveness of the school based prevention program Rock and Water in improving students' social safety: Communication as indirect effect?***

Speaker: Esther Mertens

Rock and Water (R&W) is a widespread, but still poorly evaluated, school based prevention program that aims to improve students' social safety. R&W applies a psychophysical approach, i.e., play and exercises are used to increase the strength of students, to teach them to make (physical) contact with others and to explore, respect and set own and other's boundaries. A recurrent theme throughout the intervention is verbal and non-verbal communication. Communication is proposed to increase students' feelings of social safety. Therefore, we will examine 1) the effectiveness of R&W in improving students' social safety (i.e., perceived social security in the classroom, aggression, and bullying and victimization) and 2) communication as possible indirect effect of R&W on social safety. Six secondary prevocational schools are assigned to the R&W condition (N = 253) or control condition (Care as usual (CAU); i.e., current school policy to enhance students' social safety; N = 378). Seventh Grade students participated in the study. Social safety is measured with questionnaires. Communication is assessed through video-observations in a random subsample of 65 dyads using an adapted version of the Peer Interaction Task. Same-sex dyads of classmates planned an activity together, as warm-up, and subsequently discussed three vignettes concerning daily school situations. Each of these four segments lasted 5 minutes. Interactions were coded for verbal and non-verbal communication. Deviant (e.g., "I would hit him") and prosocial (e.g., "I would borrow him a pen") communication were coded. Social safety and communication were measured prior and after R&W. Preliminary results of the total sample showed that R&W is more effective than CAU in decreasing conflicts in the class, in improving perceived social security in the classroom and in decreasing victimization. When analyzing part of the subsample that participated in the observation task (n dyads R&W = 7, n dyads CAU = 17) an indirect effect was found which indicated that R&W decreases victimization through increases in the reinforcement of prosocial utterances. These preliminary results indicate that R&W seems to be effective in improving students' social safety. Additionally, it seems important that prevention programs aimed at bullying should focus on prosocial communication.

## Poster 2.55

**Carmela Martinez-Vispo, Ana López-Durán and Elisardo Becoña**

***Preventing weight gain could be a strategy to achieve and maintain smoking abstinence?***

Speaker: Elisardo Becoña

Introduction: Weight gain after smoking cessation is considered a barrier to achieve and maintain abstinence. Previous studies have found that this could be especially relevant in the case of women. This study aims to examine: (1) whether BMI (Body Mass Index) increase during and after quit smoking separately for men and women; and (2) whether BMI increase predicts smoking status at 3 months follow-up separately for men and women.

Method: The study was conducted in male and female participating in a cognitive-behavioral smoking cessation intervention (63.1% female; mean age = 45.49, SD = 11.00). Smoking status biochemically verified through carbon monoxide in expired air (CO < 10), and weights were assessed at baseline, at the end of treatment and at 3 months follow-up. Baseline and end of treatment assessments were completed on 176 participants, of which 126 completed the 3-months follow-up.

Results: Data showed that women who quit smoking increased significantly their BMI at the end of treatment ( $p = .009$ ), and at 3 months follow up ( $p = .025$ ), comparing with those who remained smoking. No differences in BMI were observed for abstinent men at the end of treatment neither at 3 months follow-up, comparing with those who smoked. Regarding regression analysis, only in the case of women, BMI increase was predictive of being smoker at 3 months follow-up (OR = 1.64,  $p = .029$ ).

Conclusion: The results of this study showed that BMI increase during and after smoking cessation was only significant in the case of women. Additionally, it was found that this BMI increment predicted significantly smoking status at 3 months-follow-up only in women. Therefore, preventing BMI increase could be a strategy to facilitate smoking abstinence in women, and it should be addressed during but also after smoking cessation interventions.

## Poster 2.56

**Lauren Outland**

***A Mobile Application to Improve Eating Behavior by Training Users to Eat Intuitively***

Problem: Mobile applications focusing on healthy eating are increasingly being used to improve users' health. The result, if not the goal, is that target groups are utilizing apps that promote healthier eating behavior, an important

step in preventing metabolic disease. Despite this boon in nutrition oriented mobile applications, most are made by entrepreneurs who are not using health promotion theory in their platforms. However, several applications aimed at improving eating behavior through intuitive eating have been created by health promotion experts. Intuitive eating is a mindful method of eating aimed at preventing excesses of hunger and fullness that can result in weight cycling. This paper reviews one such intervention that has been created by a practitioner-researcher in health promotion.

**Innovation:** This intuitive eating app was created using evidence-based strategies to effect change, including: cues to action, interactivity, and reinforcement of learned behavior. Feedback is further individualized for each user based on how they ate to mimic face-to-face intervention. Three times-a-week users get a text cuing them to enter in how hungry and how full they got at each meal on the previous day. If they have splurged or starved, they will get feedback on the effect this behavior has on their bodies. For example, feedback for a user who skips a meal is: "Your Paleo DNA interprets this as 'danger', telling your body to hold on to fat, this leads to high levels of hunger hormones that slow your thyroid and reduce energy expenditure". Users get tips on how to eat a healthier amount by listening to the homeostatic cues of hunger and fullness. User testing revealed positive impact on identifying these homeostatic cues and providing users with permission to eat enough to be full and not get too hungry.

**Implications for Research:** Mobile applications are an underutilized method for improving metabolic health. Yet, they hold promise for both the research of health promotion interventions on users' health and the dissemination of these innovations. Mobile applications can assess real time users' health behavior. They are also serving a market that is actively seeking a health-oriented intervention.

## Poster 2.57

**Joanna Wojcieszek, Kinga Wojcieszek and Maria Wojcieszek**

***Implementation of the project 'A window to the world of cultural diversity' aimed at developing intercultural competences.***

Speaker: Joanna Wojcieszek

The idea of the project 'A window to the world of cultural diversity' started from seeing the need for workshops for children, activities dedicated to problem of peer ethnic violence. The proposal including the outline of the new program 'Open your eyes' succeeded in the public financial contest. The main goal of the program was to provide children with positive experiences during contact with the elements of other cultures (Ukraine, Japan, Kenya, India)

presented both using new technologies and material objects (gifts from foreign friends). The crucial aspect of activities with children was modelling mindful, careful, kind presence with other person as a form of being in contact with others, including children from different cultures. The clue of program was teaching the respectful attitude towards every human being, also different from these, who are well known. A variety of activities was chosen to achieve these goals, e.g. drama, storytelling (with new special texts), painting, dancing, singing. The project was implemented in Warsaw (Poland) in a few primary schools and preschools. Over one thousand children (4 – 9 year-old) participated in the program during two years of its realization. Each class/group of children was conducted by two leaders during two- or three-hour-long workshops. The project enjoyed great success in the reference of direct participants: children were really engaged, teachers from next schools wanted their children to participate. The need of continuation and extension of the project (learning respect towards the human being as a human being) was noticed.

## Parallel Session 4 (14.30–16.00)

### 4.1 The EUPC

**Peer van der Kreeft, Zili Sloboda, Gregor Burkhart, Marjolein De Pauw, Annemie Coone, Femke Dewulf and Tina Van Havere**

***UPC Universal Prevention Curriculum adapted for European professionals training: EUPC***

Speaker: Peer van der Kreeft

While science has delivered the evidence of effectiveness, prevention providers often use unproven, obsolete and ineffective prevention strategies. Evidence suggests that prevention strategies success depends less on effective interventions availability but to a greater extent on the people who implement them, their attitudes, skills and level of training. Responding to this challenge, the Universal Prevention Curriculum (UPC) was developed by the US-based organization APSI with renowned researchers in the US, based on UNODC's International Standards on Drug Use Prevention and the European Drug Prevention Quality Standards. The overall Leitmotiv 'apply evidence-based prevention' is a robust response to the scarce use of registries on both sides of the Atlantic. UPC has been adapted by research- and service based centers in 9 European countries in collaboration with APSI



(Applied Prevention Science International), EMCDDA, UNODC and ISSUP (International Society of Substance Use Professionals). The process has been documented, subdivided into "surface" and "deep" adaptations, resulting in three shortened versions, the "EUPC" that will be disseminated by EMCDDA. The analysis of this adaptation process provides a basis for further USA-Europe and other international discussions regarding training curricula and intervention materials. The development of UPC highlights the importance of training of "decision-, opinion- and policymakers" (DOP), since they are the gatekeepers for the roll-out of EB prevention interventions and practice. Through focus groups and on-line surveys, the EUPC group assessed the training needs of European prevention professionals. Based on these assessments three training modules based on UPC were developed: a five day module; a 24-hour academic module and an online module. These were piloted in the Spring 2018 in 9 countries and languages: Belgium, Croatia, Czech Republic, Estonia, Germany, Italy, Poland, Slovenia and Spain. The conclusions on the adaptation process analysis and the first results of the pilot trainings will be presented and discussed. The project ends in 2018, however, prominent European institutions have already planned to disseminate the EUPC over the coming years. The EU-USA cooperation in this project is groundbreaking and can inspire many scientists and practitioners to work together to improve how EB prevention interventions are delivered in the future.

## Rachele Donini

### ***European Decision Makers' Feedback to a Short Training Curriculum on Prevention Science***

An ongoing project funded by the European Commission in 2017 aims to adapt the Universal Prevention Curriculum (UPC) accredited by the U.S. Department of State, to the European context. It is based on UNODC's International Standards on Drug Use Prevention and the EDPQS, European Drug Prevention Quality Standards. The Universal Prevention Curriculum (UPC) has been pilot-implemented in 9 EU member states during the months from March to June 2018. The project partners bring together findings from a mapping and analysis study of prevention training in Europe with expert opinions as a resource for adaptation of the UPC. With local translations and smaller country-specific adaptations 11 institutes in the 9 member states established a pilot-training for mixed groups of stakeholders involving civil society, public authorities as well as NGO's, prevention practitioners and coordinators, the academic world and policymakers. The training is designed in three distinct modules based on again a thorough study phase including focus groups and online surveys. The pilot-trainings are delivered in a short module, an extended academic module, and an online module with an e-learning basis. The pilot-training findings

about the short module will be presented and discussed. A detailed presentation of feedback coming from at least 100 decision makers from over 6 European countries will be given in order to underline how and if research evidence and prevention science main topics are used in decision making processes. The training goal is to offer a better understanding of prevention science in order to help decision makers to choose interventions and allocate resources on what shows to work, reducing ineffective or iatrogenic drug prevention interventions. The findings from different training versions will feed the adaptation process and are likely to address the specificities of the European context in order to build a curriculum that can satisfy the training needs of the European targets. Affinities and differences among European and American prevention cultures and policies will be highlighted and some initial ideas about the European adaptation of the UPC will be offered.

## Susana Henriques

### ***Specialized Training Course in Prevention of Addictions: the EUPC online in Portuguese***

Preventive approaches are being more and more demanding for the professionals working in the field. Prevention based on prevention science requires new skills and innovative ways of professional development that must be integrated by prevention experts. The Universal Prevention Curriculum (UPC) answers to this need of a prevention work based in scientific knowledge and evidence. The European adaptation of the Universal Prevention Curriculum (EUPC) provides guidelines to work with particular contexts and vulnerable groups. Universidade Aberta (UAb) is the only public distance education university in Portugal and is member of the International Consortium of Universities for Drug Demand Reduction (ICUDDR) as an 'education provider'. Within this scope and based on the EUPC, UAb has developed the Specialized Training Course in Prevention of Addictions which is an answer to the needs of professionals working in prevention in Portuguese speaking countries. This training delivery model achieves good geographical coverage, particularly in remote areas, far from traditional universities and therefore might be particularly useful for 1) Training on the job, for professionals already working in this or related fields, and 2) Large territorial countries, particularly in the Portuguese speaking world. The teaching and learning activities of the programme proceed asynchronously using UAb's e-learning platform and other digital environments and tools typical from web 2.0 and 3.0. The programme design is based on the principles and guidelines established in the Virtual Pedagogical Model® specifically created for online teaching and learning at UAb. This model has the following four principles: i) Student-centred learning; ii) Education based on the flexibility of access to learning; iii) Education based on diversified interaction; iv) Education that promotes

digital inclusion. In this model the student is integrated in a learning community within which pedagogical thinking is developed, as a result of the participation and collaboration in the joint construction of learning. In this presentation we explain and critically discuss the Specialized Training Course in Prevention of Addictions. Namely the pedagogical design, resources, technology and tools, interaction and collaboration, e-activities and contents.

**Michal Miovsky, Jiri Libra, Amalie Pavlovska, Anna Vondrova and Roman Gabrhelik**

***The Universal Prevention Curricula (UPC) implementation into the Prague Model of Addiction Studies: process evaluation study***

Speaker: Michal Miovsky

The team on Charles University (1st Faculty of Medicine) has developed own complex curriculum of Addiction Studies between 2003 and 2012 and established BC, MA and PHD university degree program based on this curricula. This model (called Prague Model) has been continually evaluated and searched and combined three different historical traditions in prevention, treatment and public health. Graduates from this program are licensed by State Authority and Addictology is regulated profession in the Czech Republic. They recognisable as a health care professionals and can provide prevention and treatment directly in the field and can be contracted by Health Insurance Companies. In 2016 has creative team decided to implement Universal Prevention Curricula (UPC) developed by team of prof. Zili Sloboda. In collaboration with INL/Colombo plan and ICUDDR was prepared an original evaluation study. The study is based on process evaluation of implementation process conducted within 2017-2018 (1st Phase). Methods: field records, observation methods, official documents, curricula documents, syllabuses, content analysis, thematic analysis. First Phase of the study was terminated by successful official accreditation of new curricula combining an original Prague Model and UPC. For evaluation we used a structural perspective and went through the implementation process step by step with full respect to both models. The second Phase of implementation and evaluation will start in September 2018 with opening new academic year when we will test the new complex curricula on first students.

**Annemie Coone, Femke Dewulf and Peer van der Kreeft**

***An overview on the UPC-Adapt (Universal Prevention Curriculum) training piloting process of the short standardized European UPC-curriculum: strengths and points for improvement in the Belgian context.***

Speaker: Annemie Coone

This session overviews the UPC-Adapt piloting of the short EUPC-curriculum (five days of training) in Belgium. This training module is targeting prevention policy-, decision- and opinion makers. The motivation for this UPC-Adapt project is that prevention providers often use unproven and ineffective prevention strategies and should have a qualitative level of training. One of the objectives of the UPC-Adapt project is to train prevention professionals with a standardized curriculum, based on findings from a mapping and analysis study. The mapping exercise gives information on how the EUPC fills existing gaps and fits into the generic training system. The UPC was developed by APSI and is based on UNODC's 'International Standards' and the EDPQS. The design of the five day EUPC training was developed together with five other UPC-Adapt partners and based on the results of local focus groups. The short training module was divided into a 2 day elementary training and a 3 day advanced training. At the beginning and end of each training day, the trainees had to fill in a pre- and post-test (learning outcomes questionnaire) in order to compare their knowledge and skills at the beginning and at the end of the training. In addition, they filled in an open questionnaire that checked out their preferences and disapprovals in content and exercises. They were also able to express their feedback verbally. This session starts with a short overview on the training content, the recruitment of the participants and the context in which the training sessions occurred. It gives an overview on the strengths and weaknesses of the five days EUPC training based on the pre- and post-tests, open questionnaires and the feedback of the involved trainers. It gives a good idea on the different interests of prevention policy-, decision- and opinion makers and the needs they express to be trained in. The session winds up with some recommendations for the future of the EUPC.

## 4.2 Enabling change in prevention

**Karl Hill, Pamela Buckley and Christine Steeger**

***The Future of Blueprints and Other Prevention Registries***

Speaker: Karl Hill

This presentation directly addresses the conference

theme of “Prevention Technologies – improving the use of evidence in prevention practice” and describes the Blueprints database of evidence-based programs (EBPs) and its potential application in prevention efforts in European countries. There is a growing demand for evidence-based programs to promote healthy youth development, but this growth has been accompanied by confusion related to varying definitions of evidence-based and mixed messages regarding which programs can claim this designation. The registries that identify evidence-based programs, while intended to help users sift through the findings and claims regarding programs, have often led to more confusion with their differing standards and program ratings. The advantages of using evidence-based programs and the importance of adopting a high standard of evidence, especially when taking programs to scale, are presented. One evidence-based registry is highlighted, Blueprints for Healthy Youth Development hosted at the University of Colorado Boulder. Blueprints’ standards for recommending a program are widely recognized as the most rigorous in use, with an internal review team and expert advisory board examining methodological grounding, clearly defined goals, and reliably positive results to determine which programs meet a high standard of proven efficacy. The presentation presents the process by which a program reaches the Blueprints database, and provides examples of programs approved by Blueprints and implemented in Europe. The presentation concludes with a review of the major challenges facing registries of effective prevention programs, practices and policies and proposed strategies for addressing these challenges and enhancing the utility and efficacy of the Blueprints Registry.

## Matej Košir and Sanela Talić

### *How to inform policy- and decision-makers about evidence-based prevention*

Speaker: Matej Košir

Advocacy skills are essential for the prevention scientists, researchers and practitioners to potentially influence policy- and decision-making processes for better prevention policies and practice. Those skills are important especially in those prevention areas where so-called “unhealthy” industries are influential and/or (at least) want to be important stakeholders in the field (such as alcohol, tobacco and pharmaceutical industry). They are also important to advocate for evidence-based prevention policies (e.g. alcohol, tobacco or illicit drug policy) and practice, which should be fully in line with minimum quality standards in prevention. Recognizing this need, Institute Utrip developed a series of advocacy trainings, especially for scientists, researchers and practitioners in the field of prevention. Some basic information and challenges regarding the needs for training (in purpose to increase knowledge and skills) will be presented and discussed by the authors. Outcomes of such trainings should include an

increased competence for advocacy as forging stronger relationships with policy- and decision-makers and other key stakeholders in the field, advocating for the use of research to inform policy- and decision-makers about evidence-based policies and practice, providing expert testimony, writing position papers, press releases and social media posts, and committing to ongoing advocacy. Scientists, researchers and practitioners need to become more relevant to policy- and decision-makers if we want to achieve better results in prevention science and practice in Europe.

## Daniel Lloret, Salvador Teresa, Martinez Virginia and Catia Magalhaes

### *Supporting evaluation in prevention in Ibero-American countries. The Bank of Instruments of Evaluation in drug demand reduction: a COPOLAD (EU-CELAC Cooperation Programme on Drugs Policies) initiative*

Speaker: Daniel Lloret

In the prevention scene, evaluation only reaches to a minority of the interventions. The availability of assessment tools is not always easy, and it could partly explain this lack of methodology. COPOLAD (European Cooperation Programme EU-CELAC on Drugs Policies-2016 to 2020) is a partnership cooperation programme between the European Union, Latin America and the Caribbean (EU-CELAC) countries aiming at improving the coherence, balance and impact of drugs policies, through the exchange of mutual experiences. A main goal for COPOLAD is boosting an evidence-based culture for prevention practice in the CELAC countries. In coherence, the objective of this work is to build up a Bank of Instruments of Evaluation (BIE) of risk-factors. Methods: The first phase involves preparing a list of instruments validated in Ibero-American countries. The inclusion criteria were that originals or adaptations must have been published in a peer-reviewed journal, or in scientific report/catalogue or in a scientific outreach book. We classified them into three categories: Individual, Family and School. Likewise, we have compiled in a fourth category the instruments to assess the severity of consumption. In the second and third phases we analysed each instrument, and in parallel, we prepared a detailed data sheet of each one. Results: 70 instruments were identified and 214 papers reviewed. Original were mainly from Spain (33,33%), Portugal (7,24%), Mexico (1,45%), and other countries (57,97%). We identified 110 cultural adaptations: Spain (29,09%), Brasil (26,36 %), Portugal (18,18%), México (10,91 %), Peru (4,55%), Colombia (3,64%), Chile (3,64%), Argentina (2,73%), Costa Rica (0,91%). Conclusions: BIE is an effective tool to engage prevention-agents and decision-makers in a more efficient methodology. Therefore, it can be used in the prevention of drug abuse, as well as to help to do a diagnosis and/or

to evaluate psychosocial interventions. BIE as well fulfils the COPOLAD core objectives aiming to facilitate the implementation of evidence –based policies.

## Andréa Leite Ribeiro and Wanderson Flor Do Nascimento

### *Institutional racism and prevention of use of alcohol and other drugs: a bioethical reflection*

Speaker: Andréa Leite Ribeiro

Brazil's slavery past has had effects on the organizational model of society, by ranking social groups based on their color, culture or ethnic origin. The social construction of the black person in post-abolition Brazil as a threat to society is directly related to the racism that blacks are subjected to when seeking a health service. Being a black person and a user of drugs, especially illegal ones, in Brazil, means that the healthcare processes and procedures assigned to them are often discriminatory and negligent, making it a public health issue concerning a bioethical reflection. The objective of this study is to analyze from a bioethical perspective, how institutional racism affects people's physical and mental health, and can reverberate on their relationship with drugs. As a method, it were carried out reviews and reflections of bibliographic and documentary studies on institutional racism, drug policies, accessibility and responsiveness of the health system, risk and harm reduction and bioethics. Among the findings, it was identified that drug policy has an adverse effect on black people, with ineffective preventive actions, disqualification of their mental suffering, non-responsiveness of the health service, poor quality of health care, increased incarceration and genocide of this population group, demanding a comprehension that the racial aspect goes through health interventions for blacks. It was also possible to identify that preventive actions do not recognize racism in their actions as a social determinant for drug use and abuse. It is imperative to interrupt a policy based on the war on drugs, which turns out to be a war against people who use drugs, characterizing young black people and the most vulnerable ones as the typical profile. It is urgent to expand the discussion and understanding of the phenomenon in order to change practices that are hygienist, segregating, non-preventive and that promote social exclusion and inequity.

## Richard Lynas and Jamila Boughelaf

### *Confronting the Challenges and Requirements in the Provision of Online Resources for Evidence-based practice*

Speaker: Richard Lynas

There is much debate that the creation and advancement of the internet is the greatest technological development of the century. Its growth has left many non-profits with no

choice but to move with the times, follow-suit with others in the sector and move significant elements of their work online. A major step has been the use of the internet for substance abuse awareness and prevention. This means of communication has raised a question of how many current online resources are evidence-based and if they meet the requirements for those working in this field.

During 2017 Mentor UK's Alcohol and Drug Education and Prevention Information Service (ADEPIS) held a series of events for those involved in prevention work. During group sessions, there were discussions about existing online resources that support evidence-based practice and the challenges of translating this information into practice. Qualitative findings outlined the online and technological resources of greatest value to prevention workers and highlighted ways that appropriate quality resources could be of most support.

Results show that current online material does not always meet the needs of prevention workers and that many online resources are culture-specific. This review outlines findings from the discussions and explores how best online resources can be developed to meet current needs.

The Alcohol and Drug Education and Prevention Information Service (ADEPIS) was established in 2013 by the prevention charity Mentor UK to share information and resources with schools and practitioners working in drug and alcohol prevention. In 2017, ADEPIS was recognised by UNESCO, UNODC and WHO as a "prime example" of best practice in alcohol and drug education. ADEPIS is funded by Public Health England and the Home Office.

## 4.3 Critical discussions in prevention

### Harry Sumnall, Becky Pennington, Brendan Collins, Simon Leigh, Anthony Martin, Lesley Owen, Alastair Fischer and Geoff Bates

#### *How do we convince policy makers that prevention matters? Challenges in presenting the economic case for drug prevention*

Speaker: Harry Sumnall

Drug prevention activities typically receive low priority in policy and practice responses to substance use. Whilst the economic case for investment in drug treatment is strong, for drug misuse prevention to be prioritised by funders, evidence is needed to show that interventions are both effective and cost-effective. Systematic reviews have found that most drug prevention approaches are ineffective, have small effect sizes, and are not effective in the long-term. Whilst some intervention approaches have been shown to



be effective, few of these have been subject to economic evaluation outside of the USA.

We modelled the cost-effectiveness of seven interventions to prevent drug use in vulnerable populations, and which was used to support the development of national guidelines (UK). The models compared the costs (to the health and crime sectors) and health benefits (in quality-adjusted life years (QALYs)) of each intervention and its comparator. The reduction in drug use for each intervention partly offset the costs of the intervention, but with high intervention costs and low QALY gains, none of the interventions were estimated to be cost-effective in the base case. Sensitivity analysis found that some of the interventions could be cost-effective if they could be delivered at a lower cost, or if the effect could be sustained for more than two years.

Advances in prevention science have allowed for the development of theoretically-informed and evidence-based substance use interventions. However, there is currently little evidence to show that these are cost-effective, and it is therefore difficult to present a case for investment in prevention, especially in financially constrained health and social care systems. This talk will explore the need to account for sets of outcome measures in drug prevention research that incorporate the broader social costs of substance use, and discuss ways in which prevention researchers can work to develop interventions that address multiple vulnerabilities in affected groups, and which better reflect current working practices in Europe. This approach could support the development of more cost-effective interventions and help make the case for prevention.

## Nick Axford, Tim Hobbs, Louise Morpeth, Vashti Berry and Jenny North

### *Re-imagining early intervention*

Speaker: Nick Axford

Early intervention is now a well-established enterprise in children's services, demonstrated, for example, by the proliferation of standards of evidence, evidence-based programmes (EBPs) and online databases of EBPs. However, it has recently come under sustained attack, partly from critics who object fundamentally (mainly on ideological and scientific grounds) but also from those who are essentially supportive but think it could do much better. Meanwhile, trends in science, policy and wider society are either resulting in changes in the field already or should prompt a rethink. Examples include a greater emphasis on individual preferences, a deeper appreciation of complexity and the rapid expansion of digital technology. This paper describes current shifts in early intervention, exploring their origins and the opportunities and challenges they present. The shifts fall broadly into two categories, albeit with links between them: (1) how

we intervene (the nature of early intervention); and (2) how we test (the evaluation of early intervention). The first category includes: from designing interventions in the laboratory to co-producing them with users in situ; from discrete interventions to whole system approaches; from fidelity to design to personalisation; from structured programmes to improvisation with common elements; and from contact time and 'real' to any time and virtual. The second category includes: from regular randomised controlled trials to mixed methods trials; from 'what works' to what works for whom, when, where, why and at what cost; and from slow linear testing to rapid cycle testing. We argue that, collectively, these changes are moving the early intervention field in four directions: a broadening (in focus and reach); a relaxing (more flexible and dynamic, less rigid and static); a deepening (more nuanced and sophisticated); and a mixing up (more iterative, less linear). While these developments are positive insofar as they represent concrete responses to observed problems, they also present challenges. For instance, new approaches to designing and testing interventions are in their infancy, meaning that time is needed to develop the necessary expertise and skills, and in some areas there is a danger of executing U-turns when what is needed is a recalibration.

## Camilla Nystrand, Inna Feldman, Pia Enebrink and Filipa Sampaio

### *Cost-Effectiveness Analysis of Parenting Interventions for the Prevention of Persistent Externalizing Behaviors: a Long Term Approach*

Speaker: Filipa Sampaio

Background: Externalizing behaviour disorders are common among children and place a high disease and financial burden on individuals and society. Parenting programs are commonly used to prevent such disorders, but little is known about their potential longer-term health and economic benefits. This study modelled the longer-term cost-effectiveness of five parenting interventions: Comet, Connect, the Incredible Years (IY), Cope, and bibliotherapy, compared to a waitlist control, for the prevention of persistent externalizing behaviour disorders in children.

Methods: A decision analytic Markov model was developed to estimate the cost-effectiveness of the interventions achieved by a reduction in the persistence of attention-deficit/hyperactivity disorder (ADHD), Conduct disorder (CD) and comorbid ADHD/CD. Epidemiological and effectiveness data were sourced from a previous RCT. We assumed intervention effects at post-test and at a two year follow-up and null effect thereafter. A limited societal perspective was adopted, including costs accruing to the healthcare and education sectors. Intervention costs were based on intervention descriptions. Disability-adjusted life years (DALYs) were used to estimate health benefits. The study sample consisted of 961 children aged 5-12

years who were followed through to the age of 18 years. Multivariate probabilistic and univariate sensitivity analyses were conducted to test model assumptions.

Results: Intervention costs ranged between US\$ 14 (bibliotherapy) to US\$ 1,470 (IY) with cost offsets between US\$ 537 (Connect) and US\$ 1,888 (IY). All parenting interventions were cost-effective at a threshold of US\$ 50,000 per DALY averted and showed negative incremental cost-effectiveness ratios. Two of the interventions, Cope and bibliotherapy were 100% likely to be cost-saving.

Conclusions: Parenting interventions are cost-effective in the longer run at preventing persistent externalizing behaviour disorders, when modelling children up to the age of 18. Cope and bibliotherapy show cost-savings and robust results in terms of value-for-money.

## Jamila Boughelaf and Richard Lynas

### ***Forward-thinking prevention: The role of online assessment in future evidence-based practice. An ADEPIS case study***

Speaker: Jamila Boughelaf

The Alcohol and Drug Education and Prevention Information Service (ADEPIS) is a project set up and managed by Mentor UK in response to the lack of a centralised support for evidence-based drug education and prevention, following Government's decentralisation and localism efforts. Aimed at promoting evidence-based drug education and prevention resources for teachers and practitioners working in schools and other educational settings (both formal and informal), it has attempted to develop more interactive and effective ways to build capacity and promote implementation of best practice. In November 2017 ADEPIS launched two online self-assessment tools / quality mark frameworks to support schools and practitioners in: a) quality assessing their practice, b) increasing their understanding of evidence-based approaches and c) addressing current gaps and improving service delivery through the implementation of structured monitoring and evaluation and learning frameworks and training. The quality mark tools were developed on the basis of the European Drug Prevention Quality Standards. We want to focus on assessing the potential of services like ADEPIS internationally, and the provision of increasingly online-based assessment and training tools in supporting the workforce and promote the implementation of evidence-based practice, at a time of budget cuts and increasing public health priorities. We will do this by assessing the following points through interactive discussions with attendees, in order to encourage mutual learning and innovation: - current challenges faced by the sector, such as financial constraints; - current challenges faced by ADEPIS and Mentor, such as limited reach with schools given recent

privatisation and increase of independent academies; - effectiveness of an online-based self-assessment tool on the basis of case studies' analysis; - pioneering and increasingly effective ways of communicating evidence-based drug prevention with a variety of audiences to ensure understanding and buy in, subsequently encouraging more innovative fundraising strategies to support local implementation.

## **Liza Hopkins, Therese Riley, Maria Gomez, Seanna Davdson, Daniel Chamberlain, Katie Conte and Andrew Wilson**

### ***Monitoring change in local prevention systems: an Australian example***

Speaker: Liza Hopkins

Australia, like most of the rest of the world, is facing an epidemic of chronic disease, yet much of this burden of chronic disease is preventable. There is a growing body of evidence to suggest that efforts aiming to transform health in communities often fall short in achieving what was intended. More research is needed to understand and intervene in the complex systems within which local prevention efforts are delivered. This paper reports on the Prevention Tracker project, an ambitious research project designed to describe, guide and monitor systems change efforts in chronic disease prevention across four diverse Australian communities. Working with local partners, the project utilises a range of systems inquiry tools to help understand each unique local prevention system. We work with local stakeholders to define a key systemic problem which is impacting the effectiveness of local prevention efforts and develop monitoring tools to help communities identify and measure systems change. Using the locally defined systemic problem, we work within existing prevention efforts to re-orient action and establish systems action learning teams to monitor the impact of system level change. System action learning teams within the communities offer an opportunity to reflect on practice, consider the local causes and drivers of both effort and barriers in prevention, and address existing resources towards coordinated and impactful efforts. We use the relevant data about efforts to effect systems change to develop monitoring tools to help the teams in each community capture relevant local data. Using this system-oriented approach, Prevention Tracker has been able to offer communities a set of system level tools to help them identify what is locally relevant in chronic disease prevention and to guide and monitor actions to implement systems change.

## 4.4 (Re)designing prevention services and systems

**Flora Lorenzo, João Cláudio Todorov, Samia Abreu, Adriana Simonsen, Daniela Trigueiros, Débora Massarenre Pereira, Janaina Barreto and Michaela Juhasová**

### *Challenges on prevention policy transfer in contexts with high levels of inequality*

Speaker: Flora Lorenzo

Contexts with high levels of inequality produce intergenerational poverty cycles, school failure and unequal access to job opportunities. These conditions operate towards the permanence of the vulnerabilities associated with income disparity. Thus, the barriers imposed by the multidimensional poverty to socially vulnerable individuals must be included as of prevention targets instead of being considered non essential variables. Since 2013, a prevention culture has been established in Brazil as a result of the initiative of the Mental Health Department of the Ministry of Health to transfer prevention programmes to States and Municipal government settings. However, conflicting evidences were collected between qualitative and quantitative methods and between monitoring and research procedures. This led to fragilities on evidence-based prevention political agenda in course. Two interlinked hypothesis were made on the possible cause of divergences: (I) the lack of repeated measures along prevention programs on prevailing procedures of quantitative data collection; and (II) the lack of focus on the critical role of institutional practices on strengthening or inhibiting personal abilities through environmental consequences. Methods to achieve and measure complex interlocking behavioural contingencies and their social aggregate product are still neither familiar in prevention field nor in public policies. This scenario brings little information on the functional relations between dependent variables (protective behaviours) and independent variables (programs procedures) nor on its tendencies. To policy making this leads to little or even mistaken insights on critical and successful aspects of prevention strategies in progress. The national barriers to prevention might be overcome by strengthening the monitoring and research procedures by including (a) institutional determinants on protective and risk factors and (b) repeated measurements on procedures and target variables. Behavioral technology on cultural practices are suggested as important contributions to plan and measure changes on institutional practices and their social impact in transgenerational cycles of vulnerabilities.

**Katarzyna Jurzak and Piotr Mączyński**

### *'Safe Kraków Programme' – a dialogue of theory and practice*

Speaker: Piotr Mączyński

This paper aims to present best practices stemming from the process of preparation of the county crime prevention, citizen safety and public order programme 'Safe Kraków' (Poland). The team comprised of prevention professionals (local authorities, city officers, police, NGOs, schools, teachers, security experts) and researchers (lawyers, sociologists, sociologists of law, mediators, police scientists, criminologists, security scientists) ensured cross-disciplinary work from the early stages of programme preparation. The unique merge of safety actors representing diverse backgrounds and covering vast range of expertise created inspiring environment for shaping crime prevention programme and helped to build interinstitutional partnership. Previous nationwide research on crime prevention programmes, crime mapping, cyclical survey on citizens' feeling of safety created fundaments for evidence-based approach. Clear organisational structure, diverse forms of financing, responsiveness, evaluation embedded in the programme as well as scrupulous data collection anticipating the process of creating 'Safe Kraków' programme, innovative tools (crime mapping) and cumulated knowledge of team members were crucial for the success. Programme focuses on innovative activities which avoid duplicating duties assigned to certain city units and increasing horizontal cooperation among them. Accompanying political process of formal programme adoption and implementing it into city-wide development strategy for 2030 will be also discussed.

**Janice Krieger, Jordan Neil, Lauren Griffin, Francois Modave, Ben Lok, Donghee Lee, Aantaki Raisa, Mohan Zalake and Fatemeh Tavassoli**

### *Is the future of prevention virtual? Examining the efficacy of a virtual human intervention to translate cancer screening guidelines*

Speaker: Janice Krieger

An ongoing question in prevention science is how to translate evidence in a manner that promotes behavioural change among the intended audience (Krieger & Gallois, 2017). This task is particularly challenging when the scientific evidence changes over time (Neil et al., 2017). Shifting behavioral recommendations can cause confusion and skepticism among the public. Colorectal cancer (CRC) is an example of a domain where advances in the science of prevention are not consistently translated in a manner that promotes behavioral change. While many national CRC screening guidelines recommend home stool tests

such as Fecal Immunochemical Testing (e.g., Australia, Canada, United Kingdom), colonoscopy continues to be perceived as the gold standard for screening in the United States. As a result, many Americans are out of guidelines for CRC screening due to the barriers associated with colonoscopy.

Despite the need to improve CRC prevention, developing clinic-based interventions to promote home stool testing in the United States is challenging for several reasons. One is that patients may be unwilling or unable to attend to messages about screening. Another is that providers may not have the time in the clinic to recommend screening. Finally, providers may not possess characteristics known to engender trust among patients. The goal of the current study is to examine the efficacy of an intervention utilizing virtual human providers that may be suited for overcoming these challenges.

We conducted an online 3 (modality) x 2 (demographic matching) randomized message design experiment with a control group (N = 600) to examine the efficacy of using virtual humans to deliver CRC prevention messages. Modality manipulated the format of the intervention (text-based, distal virtual human, proximal virtual human). Demographic matching was manipulated by assigning participants a virtual human that either matched or mismatched their race and gender. The results have implications for the effective use of virtual human technology in a range of prevention contexts, including integration of virtual interventions into patient health portals.

**Funding:** This study was funded by the University of Florida Research Opportunity Seed Fund.

**Tim Hobbs, Kate Tobin, Maria Portugal, Ben Hartridge and Nick Axford**

### ***Injecting some science into the art of service design***

Speaker: Tim Hobbs

Prevention scientists typically take a structured and empirically grounded approach to designing or refining services. This may include: conducting or drawing on epidemiological studies of need; considering the literature on the aetiology of the problems to be addressed; developing logic models that consider mediating and moderating mechanisms; and reviewing the evidence of 'what works'. However, it is becoming increasingly common for evidence-based services designed within this paradigm to struggle to replicate their effects over time or in new contexts. There are various possible reasons for this, but one arguably concerns the means by which such interventions are developed.

Meanwhile, user-centred design approaches, developed initially from the field of product design, and now digital

UX/UI approaches, are increasingly being adopted in service design and offered as a response to the limitations of the science-based approach to service design described above. Indeed, a whole new language and technology of user-centred service design (or design thinking) has emerged over the last decade. Prototypes are developed rapidly, with a strong emphasis on user needs and co-design, iteration and designing for actual implementation context(s).

In this paper we argue that both approaches to service design have their strengths and limitations. Crudely speaking, science-based approaches create services that probably stand a greater chance of improving outcomes – if only they could engage users and be sufficiently adaptive to scale in different and rapidly changing contexts. User-centred design approaches, by contrast, create services or systems that people like – if only they were underpinned by some evidence so that they had a greater chance of improving outcomes or not reinventing the wheel (for better or worse).

To explore these arguments we draw on some of our recent work at the Dartington Service Design Lab – including service design and adaptation with the national homelessness charity in the UK, Crisis, and our work to adapt the Family Nurse Partnership home visiting programme for young mothers in England. In both cases we describe the method of intervention adaptation and testing and analyse their strengths and limitations in relation to the science-based and user-centred service design methods respectively.

**Alessandro Coppo, Fabrizio Faggiano, Chiara Airoidi, Lucas Donat Castello and Davide Susta**

### ***The effect of the Empowering Hospital model on healthy behaviours***

Speaker: Alessandro Coppo

Empowering Hospital (emp-h-project.eu) is a project funded by the European Commission aimed at engaging chronic patients, their relatives and hospital staff in health promoting activities inside and outside the hospital. A randomized controlled trial realized in two hospitals (in Italy and in Spain) was designed to study the effect of an intervention based on risk profilation, counselling and access to health promoting opportunities. Control group was exposed to a brief advice. At baseline 977 subjects were recruited and followed for 6 months. Beneficial program effects were found for alcohol abuse (RR: 1.85, 95% CI 1.06-3.23) and for physical inactivity (RR: 1.95, 95% CI 1.35-2.82). Improvement in smoking cessation and fruit and vegetables consumption were also registered, but without any difference between intervention and control groups. The experimental evaluation of the Emp-H model demonstrated how a sustainable intervention delivered



in the hospital setting can be effective in modifying risky behaviours in different target populations. Lessons learned from the project were collected in a handbook for healthcare professionals.

## 4.5 New developments in evidence-based prevention

**Samia Abreu, Michaela Batalha Juhászová, Débora Massarente Pereira, Adriana Simonsen, Daniela Piconez Trigueiros, Karen Oliva and Janaina Barreto Gonçalves**

***“Our sin was to evaluate our interventions and we have been punished for that”: the complexity of trying to associate prevention science and public policy and the use of (non) evidence***

Speaker: Samia Abreu

There is a permanent debate in academic circles about how to influence public policy decision-making. Diverse models of the relation between science and “real word” were proposed and evaluated. Even whether it is not a main topic, the issues around this relation always appear in some matter. But what are the risks of this approximation? What happens when the research findings appoint divergences from expected results? The Brazilian Ministry of Health (MoH) has imported, culturally adapted and implemented three evidence-based programmes (Good Behavior Game, Unplugged and Strengthening Families Programme 10-14) with the intention to disseminate the Brazilian versions of the programmes nationally as public policy. The implementation reached 11.480 children, 42.686 adolescents and 1.018 families in Brazil during 4 years of implementation (Jan-2013- Dec-2016). Seeking evidence-based practice, MoH established innovative partnerships with three Brazilian universities that conducted interventions assessments indicating initial protective impact of the GBG and null and iatrogenic results for Unplugged in a RCT. The data from a quasi-experimental evaluation of SFP are still under analyses. Facing this challenge, four powers-actors were pressing in different, even contrary, directions: (1) the municipal and state implementers and decision-makers continue the implementation despite the results, (2) the researchers indicate the need of adjustments in the programmes, (3) the political leaders change their attitude towards the results according to the macro scenario: overlooking them in order to continue dissemination, or using them to justify the decision to interrupt the implementation of the programmes and (4) the technical experts in prevention advocating for the continuity of the process of transformation of programmes into public policy

conditioned by investment in further adaptations and fidelity monitoring improvements. All these four powers-actors remain struggling to influence the decisions and they have been under or over-estimating the strength of the evidence in defense of their political interest.

**Vincentas Liuima and Rolanda Valintėlienė**

***Opportunity for successful knowledge translation in Lithuania***

Speaker: Vincentas Liuima

Local and international organizations have highlighted that health policy, prioritization and financing solutions in Lithuania are not based on evidence and research. There is a need to introduce evidence-based management tools and promoting use of evidence for decision-making and policy implementation. Lithuania as a member of the WHO Evidence-Informed Policy Network (EVIPNet) has agreed to create national measures for evidence-informed policy making. Ministry of Health and Institute of Hygiene aim to adapt the WHO EVIPNet methodology, create knowledge translation (KT) processes and establish knowledge translation platform (KTP) in Lithuania. To identify potential KTP participants, mechanisms of KT health sector public management institutions' survey was carried out. Results showed a need for a KTP to join all health sector public management institutions, experts, academia and other stakeholders. Survey also showed that all institutions have different fields of work, manage various data and differ in capacities. In 2018 KTP of 13 institutions as equal members was established. Each member has a representative in the coordinating KTP board, which participates in priority setting, problem identification and policy dialogues. KTP members proposed priorities of which 3 were selected for pilot Evidence Briefs for Policy (EBP) based on priority setting criteria. Working groups of specialists, experts and other stakeholders will be formed to address the priorities selected. Pilot EBPs will be prepared using local data, best available evidence and experts' knowledge. Each of the EBP will address one concrete problem; propose options as well as option implementation considerations. Prepared EBP will be presented and discussed during policy dialogues with stakeholders (experts, decision-makers, politicians, scientists, groups affected by the problem or possible solution, etc.). This presents an opportunity to initiate evidence-informed policy making processes, promote the use of the best available evidence, national dialogues and increase cooperation and inclusion.

**Ingrid Gomes Abdala, Jordana Calil Lopes de Menezes de Oliveira, Larissa Almeida Nobre-Sandoval, Karina Damous Duailibe, Danielle Aranha Farias and Sheila Giardini Murta**

***Contextual barriers and facilitators in Strengthening Families Program implementation process in Brazil***

Speaker: Ingrid Gomes Abdala

Understanding external factors impacting preventive interventions allows refining them, fostering their effectiveness and their sustainability. Programa Famílias Fortes (PFF), a Brazilian adaptation from the Strengthening Families Program 10-14 UK, aims to boost national alcohol and drug abuse prevention policies and has been implemented to reduce risk behaviors for adolescent health by strengthening family ties. Delivery of PFF is preceded by pre-implementation tasks in a set of chained stages, considered the program's action theory: federal-municipal government negotiations; local coalitions; services mobilization; staff training; PFF dissemination to target families, and meeting organization. This study analyzes the contextual and procedural factors considered as barriers and facilitators in each pre-implementation and implementation stage. A qualitative study was carried out through 16 interviews and 2 focus groups with professionals responsible for PFF management, supervision, and implementation. Content analysis was based on PFF's action theory and the Context and Implementation of Complex Interventions (CICI) framework. The most recurrent barriers indicated by the managers were: working conditions of implementing agents (13.7%), municipal management weaknesses (13.2%), poor infrastructure (9.4%), inadequate use of methodologies in staff trainings (7.3%), poor adherence of managers and professionals to the Program (5.6%), and lack of financial resources (5.6%). Conversely, the following context aspects were facilitators: adequate intersectorial coalitions (10.7%), stakeholder engagement (8.9%), management agents' awareness (7.5%), effective municipal management (6.5%), and efficient family approach strategies (6.5%). When compared to CICI theory-based instrument, these results show substantial repercussions on: the political context (31.7%), implementation agents (26.3%), and implementation strategies (25%). A less significant influence is observed regarding geographical context (6.5%), sociocultural context (5.1%), socioeconomic context (3.1%), and implementation process (2.2%). Interviewee accounts indicate that PFF requires pre-existing and functioning intersectorial coalitions, effective management structure, distribution of power, and proper financial expenditure. These results help to understand the challenges of importing family-based prevention programs from high-income countries to low-and-middle-income countries, like

Brazil. The study concludes that improving PFF requires advocacy for a culture of prevention, particularly in areas of high vulnerability, for they often prioritize urgency rather than prevention.

**Merete Aasheim, Maria João Seabra-Santos, Sturla Fossum, Maria Filomena Gaspar and Oddbjørn Løndal**

***Effects of the Incredible Years (IY) Teacher Classroom Management (TCM) program in universal and disadvantage settings; change in children's problem behavior and social skills***

Speaker: Merete Aasheim

Background: The negative consequences of poor psychosocial functioning and disruptive behaviours in early childhood, are well documented, including peer rejection, school failure, mental health problems and criminality (Emond, Ormel, Veenstra, & Oldehinkel, 2007; Ford et al., 2012; Odgers et al., 2008). Children facing economic disadvantage are at a higher risk for a poor behavioral and emotional development (Raver et al., 2009). Prevention and early intervention practices, such as the IY-TCM program, have been proven effective in addressing these challenges, particularly when they are focused on early years of life (Webster-Stratton & Bywater, 2015). Understanding whether IY-TCM program, given as a targeted intervention towards children facing economic disadvantage, or given as a universal preventive intervention in regular settings, changed children problem behavior and social skills, were the aims in this investigation.

Method: Participants were children in 65 preschools in the Coimbra district in Portugal where the percentage of children receiving free lunch was used as a proxy indicator of economic need, and children in 92 Norwegian universal kindergartens settings. For the Portuguese cohort, an experimental randomized controlled between-group design was used, and 1030 children (3-6 years) were recruited. For the Norwegian cohort, a quasi-experimental pre-post design was used, and 1049 children (3-6 year) were recruited.

Results: Results for economically disadvantaged children, positive effects in problem behavior ( $t = 4.3$ ,  $d = .10$ ), and social skills ( $t = 5.3$ ,  $d = .21$ ) were found from pre- to post-intervention, when comparing the intervention with the control group. Results for children in universal kindergarten settings in Norway, preventive effects in problem behavior ( $t = 3.2$ ,  $d = .14$ ), and social competence ( $t = 4.6$ ,  $d = .21$ ) were documented in favor of the intervention group.

Conclusion The findings give support to promising effects of the IY-TCM program implemented both in universal and disadvantage settings on children's problem behaviours and social readiness. Furthermore, these findings may

have significant social implications that can inform policymakers with regard to an effective way of reducing child risk factors and the consequent gaps observed between children coming from different economic backgrounds (Fossum, Handegård, & Drugli, 2017; Seabra-Santos et al.).

**Larissa Nobre-Sandoval, Luís Gustavo Do Amaral Vinha, Viviane Paula Rocha, Ana Aparecida Vilela Miranda, Fabio Iglesias and Sheila Giardini Murta**

***Influential factors on the implementation process of the Strengthening Families Program in Brazil: a group leader's perspective***

Speaker: Larissa Nobre-Sandoval

The Strengthening Families Program (SFP 10-14 UK) was implemented in Brazil from 2013 to 2017 as part of the broadest national initiative of evidence-based public policy for drug abuse prevention. Factors related to external and internal contexts, program delivery facilitators, and intervention characteristics may interfere with the implementation process and favor or undermine effectiveness. This study assessed satisfaction with the implementation process, based on the perspective of group leaders with previous experience in delivering SFP 10-14 UK to families in the Northeast of Brazil (N=153). The participants answered a 16 item Likert scale (0=low satisfaction; 10 = high satisfaction) focused on the delivery system, the support system, the compatibility between the goals of the intervention and service, program characteristics, and professional adherence, as well as a 13 item Likert scale (1=completely disagree; 7=completely agree) addressing training and professional self-efficacy. The findings were analyzed with descriptive statistics and showed elevated satisfaction with professional involvement. This consisted of engagement (M=9.18, SD=0.91) and self-evaluated performance (M=9.05, SD=0.82), followed by the support system, which included supervision (M=8.73, SD=1.85) and training (M=8.72, SD=1.41). The participants considered the training efficacious to improve their knowledge on protective processes to drug abuse and enhanced their self-efficacy in leading preventive groups. Likewise, the participants indicated high satisfaction with the convergence among the SFP 10-14's and public services' aims (M=8.83; SD=1.28) and program characteristics, the comprising manual (M=9.06; SD=1.42), complementary material (M=9.23; SD=1.21), and procedures for families (M=8.89, SD=1.19), parents (M=8.77; SD=1.42) and adolescents (M=8.95; SD=0.96). In contrast, lower levels of satisfaction were observed regarding the delivery system, this is mainly due to transport for participants (M=7.28; SD=3.47), incentives for families (M=7.44; SD=3.14) caretakers for children (M=8.11; SD=2.59) and public service infrastructure (M=8.47; SD=1.54). Implications of these findings to solve difficulties in the delivery system and to

inform the development of a scale-up implementation manual for public policies professionals are discussed. Further studies should investigate the predictive role of the implementation factors on the effectiveness of SFP 10-14 in Brazil.

## **Plenary Session 4 (16.30–18.00)**

**Kirsten Mehlig, Leonie H. Bogl, Monica Hunsberger, Wolfgang Ahrens, Stefaan De Henauw, Isabel Iguacel, Hannah Jilani, Dénes Molnár, Valeria Pala, Paola Russo, Michael Tornaritis, Toomas Veidebaum, Jaakko Kaprio, Lauren Lissner**

***Children's propensity to consume sugar and fat predicts regular alcohol consumption in adolescence***

Speaker: Dr Kirsten Mehlig

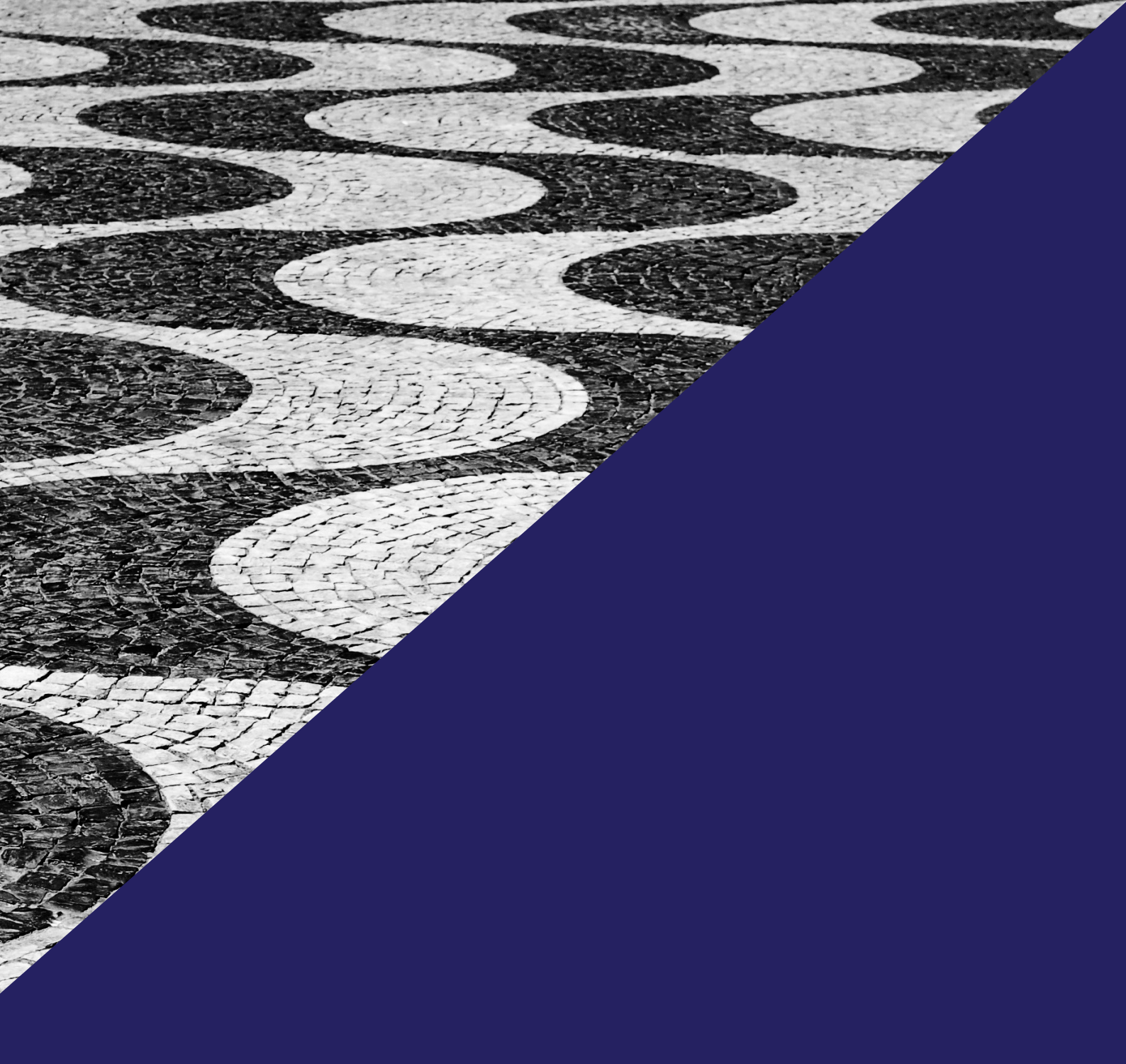
Objective: This study investigated the association between sugar and fat intake in childhood in relation to alcohol use in adolescence. We hypothesized that early exposure to diets high in fat and sugar may affect ingestive behaviors later in life, including alcohol use.

Design: Children from the European IDEFICS - I. Family cohort study were examined at ages 5–9 and followed up at ages 11–16. Food frequency questionnaires were completed by parents on behalf of children, and later by adolescents themselves. Complete data were available in 2263 participants. Children's propensities to consume foods high in fat and sugar were calculated and dichotomized at median values. Adolescents' use of alcohol distinguished at least weekly from less frequent use. Log-binomial regression linked sugar and fat consumption in childhood to risk of alcohol use in adolescence, adjusted for relevant covariates.

Results: Five percent of adolescents reported weekly alcohol consumption (64% boys). Children with high propensity to consume sugar and fat were at greater risk of later alcohol use, compared to children with low fat and low sugar propensity (relative risk = 2.46, 95% confidence limits = 1.47, 4.12), independent of age, sex, and survey country. The association was not explained by parental income and education, strict parenting style, or child's health-related quality of life, and was only partly mediated by sustained consumption of sugar and fat into adolescence.

Conclusions: Frequent consumption of foods high in fat and sugar in childhood predicted regular use of alcohol in adolescence.





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