



REPUBLIKA SLOVENIJA
**SLUŽBA VLADE REPUBLIKE SLOVENIJE ZA RAZVOJ
 IN EVROPSKO KOHEZIJSKO POLITIKO**



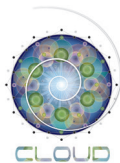
International conference

Comprehensive approach for the treatment and social and economic reintegration of illicit drug users

Book of Abstracts

Izola, 20th – 21st May 2016





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Dear participants of the International Conference,

The use of psychoactive substances has always been and continues to be a great human puzzle that humans inherited from the past generations and are bringing into the future.

Always repeated questions with many answers, but never with sufficient satisfaction, are: Why humankind is using substances that are changing our perception and, consequently, our answer to the environmental signals? Why using psychoactive substances that cause us besides good feelings also often many bad ones? Why some develop a dependence, while others occasionally use drugs for life and do not develop a dependence? What is so mystical about drugs that it's often limiting even researchers? Why they hold a stigma, which put so much injustice precisely to those drug users who have most drug problems? Why, despite all continuous efforts, we are unable to reduce the drug use or at least reduce the harm caused by their use?

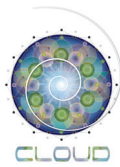
Countries are investing many resources in research, in police actions, prisons, hospitals, numerous governmental and non-governmental programs in order to control this phenomenon. However, the drugs are still here, man is still using them in his cleverness and great knowledge, he's begun to create his own drugs – new drugs that are more and more present, that are much more difficult to manage with existing approaches than conventional drugs, and that are designed for the modern man who is more and more alone in a crowd of people and burdened to the last atom in pursuit of money and profit. It is this man who thinks that he will master everything, will take the drug he doesn't know at the end of the week and will reduce distress or maybe increase it; no matter he knows or not what is in this tablet, he risks as many times before. He risks in society of risks, risks his life to disconnect from everyday life for only a moment and then coming back after Sundays and after-parties back into daily race against time and sometimes it hostiles environment.

Drugs are a part of research, for some researchers a challenge that gives them power and search for meaning of life. These two days will be a time, when we can fully focus on improvements, exchange ideas and meet each other, when ideas and thought will meet, when we might together or separately find new answers and questions, challenges for the future that we couldn't see before. In a society, where drugs have an exact position, they will be in the stage playing all roles, whether we like it or not.

We wish you to have a great time during this meeting and to keep it in mind as a good memory on our joint gathering.

Prof. dr. Gorazd Drevenšek

Milan Krek



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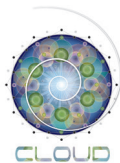
KEYNOTE SPEAKER

CAN PSYCHEDELICS AGAIN BE USED TO TREAT ADDICTION?

David Nutt

Imperial College London, UK

My talk will explore the historic use of psychedelics for the treatment of addictions until they were banned in the 1960s. I will show new data on their efficacy then and discuss recent studies in alcohol and tobacco addiction that suggest they should be brought back into current medical practice. I will also explain how our recent neuroscience research on psychedelics helps explain their therapeutic effects in addiction.



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EPIDEMIOLOGIC DATA ON ILLICIT DRUG ABUSE

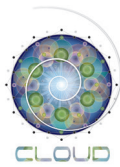
EPIDEMIOLOGY OF DRUG USE: THE EUROPEAN PERSPECTIVE

João Matias

European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)

Praça Europa 1, Cais do Sodré, 1249-289 Lisbon, Portugal

www.emcdda.europa.eu



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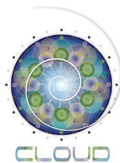
NEUROBIOLOGICAL ASPECTS OF ILLICIT DRUG ABUSE

UNDERSTANDING THE SOCIAL POLICY IMPLICATIONS OF EPIGENETICS: POTENTIAL AND RISKS

Maurizio Meloni

University of Sheffield, Department of Sociological Studies (Leverhulme Grant on Epigenetics
and Public Policy)

Though it has not yet become a full source of public policy, claims about epigenetics are already significantly shaping discourses and views on class (in Europe), race (North America), and gender (globally), as well as broader conception of health and disease. As any view of plastic, malleable biology, the politics and public health applications of epigenetics are caught in a double dialectics: 1) a first between regenerationism and degenerationism, incitation to ‘upgrade oneself’ and risk of ‘poisoning inheritance’, a rhetoric that represents a resurfacing of discourses that were typical of 1910/1920 soft heredity debates (Meloni, 2016); 2) a second tension is instead between the individual and the collective level: the usage of epigenetics as a further layer of personalized or precision medicine at the individual level, or as a marker to define specific groups that have gone through particularly negative experiences (poverty, trauma, addiction etc.) that now ‘mark’ their epigenome. In my talk, I will claim that it is not yet clear how epigenetics will take form among these various tensions. Even the best conceptual framework is open to unpredictable socio-political outcomes. Science never decides political values, rather the opposite is true.



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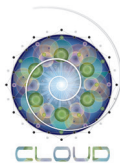
EPIDEMIOLOGY OF DRUG USE AND ABUSE AND SOME CONSEQUENCES IN COASTAL KARST REGION IN SLOVENIA

Milan Krek

National Institute of Public Health, Koper, Slovenia

General population survey (methodology EMCDDA) on drugs, made by NIJZ, on state and local level in Slovenia in 2012, present us that 24% of people aged 15-64 years have been smoked cigarettes in Slovenia and in the Coastal karst region (region) there were 25.6% of such persons. The percentage of former smokers of cigarettes in Slovenia was that time 23.1% and in the region 27.5%. 52.9% of people have never smoked cigarettes in Slovenia and in the region of 46.9%. 21.4% of Slovenian population did not use alcohol, and in the region 21.9%. Excessive drinkers in Slovenia present 10.55% of populations and in the region, 9.7%. 16.1% of the population have been used life time the illicit drugs in Slovenia and in the region 24%. The life time use of cannabis was 15.8% in Slovenian much more in region (23.3%). In the last 12 months before the survey 4.4% of Slovenians have used cannabis and a little more 5.3% in the region. 2.1% Slovenian citizens use life time cocaine and 3.9% of the population in region. 0.5% of life time users of Heroin were in Slovenia and 0.8% in the region. 0.6% of people have been life time used New PAS in Slovenia, in the region 0.9%. Data from police records show us that the region with 13.3 criminal offenses related to dealing with illicit substances in sport on 100,000 residents, is ranked high in comparison with the Slovenia (8/100000 residents). Higher values have only two regions.

The number of crime offences per 100,000 inhabitants was significantly higher in the region than in Slovenia. In the period from 2005 – 2015 we find in region, higher number of drivers on 10,000 residents who have been tested and be positive for drugs, compare to Slovenian data. The number of drug user in treatment programs of the centers for prevention and treatment of drug addiction on 10,000 inhabitants in the region is significantly higher than in Slovenia. Epidemiological data show as a significantly greater prevalence and consequences of drug use in a region than in Slovenia. From that reasons we need to implement in a region new comprehensive measures in different sectors to protect population against the negative consequences of drug use and addiction and develop a new multisector approach to drug phenomenon in region, to reduce the negative influence of drug use on public health and population in region.



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NEUROBIOLOGICAL ASPECTS OF ILLICIT DRUG ABUSE

EPIGENETIC BASIS OF ADDICTION AND DRUG USE DISORDER

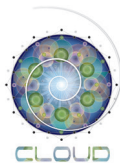
Gorazd Drevenšek

University of Primorska, Faculty of Mathematics, Natural Sciences and Information Technologies, Koper, Slovenia; University of Ljubljana, Faculty of Medicine, Institute of Pharmacology and Experimental Toxicology, Ljubljana, Slovenia

Addiction is a primary, chronic disorder of brain reward system and related neurobiological circuitry. Substance use disorder is a chronic condition of compulsive drug seeking and drug use that results in changes in central reward pathways. It is defined by a compulsion to use psychoactive substances, by loss of control over their use, constant craving, and changes in motivation, memory and continuous abuse despite multiple adverse consequences. A compulsive activity related disorder shares the same pattern of response in brain reward system as in substance use disorder. Etiology of addiction is complex and involves the interaction of inherited predispositions and environmental factors.

Epigenetic changes are response to exposure to various drugs and represent drug-induced changes in gene expression. Epigenetic mechanisms represent changes in mediating addictive behaviors via long-lasting changes in gene expression. Alterations in the accessibility of genes within their native chromatin structure are induced by histone tail modifications and DNA methylation, and the regulation of gene expression by non-coding RNAs. Factors influencing these processes are CREB, NF- κ B, MEF2, delta FOSB. Histone modifications that can impact gene expression include methylation, phosphorylation, ubiquitination and some other chemical modification. Chromatin modifiers like histone acetyltransferase (HAT), histone deacetylases (HDAC), histone methyltransferase (HMT), histone demethylase (HDM), DNA methyltransferase (DNMT) are specific for some drugs.

Epigenetic mechanisms are often induced by specific drugs. The drugs that showed epigenetic activity are antidepressants, anxiolytics, antipsychotics and several drugs of abuse like alcohol, tobacco and many illicit drugs. These mechanisms are often switch-on in parental generation or even older generations and thus epigenetically “inherited” to present. Some of these drugs in some persons may improve increase of neurotrophic factors important for neuroplasticity, a process responsible for regeneration, rejuvenation and regular physiology. On the contrary, some others may decrease many of those factors in brain structures of reward system.



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EPIDEMIOLOGIC DATA ON ILLICIT DRUG ABUSE

THE USE OF DRUGS AMONG ADOLESCENTS IN THE COASTAL KARST REGION AND SLOVENIA

Marina Sučić Vuković

National Institute of Public Health, Slovenia

Background:

In 1995, Slovenia was included in the European project ESPAD (European Research of Alcohol and Other Drugs), which focused on secondary school students). The research is carried out every 4 years. The Coastal Karst region has been included in the project since 2003.

Objective:

to acquire data about the use of all drugs and risk factors among secondary school students in the Coastal Karst region and Slovenia, as well as to compare the data from research undertaken in 2011 with that of research carried out in 2007.

Methods:

In 2011, 3,180 secondary school students in Slovenia participated in the research; 977 students were from the Coastal- Karst region.

From the questionnaire that contained 59 questions, we chose and elaborated only upon those questions connected with the object of our research.

To process the data, we used the computer programs SPSS and Microsoft Excel.

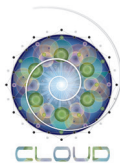
Results:

We established that adolescents most frequently used cannabis. There was no difference between genders.

A comparison between the research data in 2011 and 2007 demonstrated a decrease of accessibility to cannabis, although use of the drug remained at the same level. Notably, we established an increase in percentage of those students who believed that regular use of cannabis posed little risk to their health. However, the data did show that a low percentage of students used other drugs.

Conclusion:

On the basis of these new findings, we need to value existing programs more as well as modernize and adapt them to specific target groups.



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NEUROBIOLOGICAL ASPECTS OF ILLICIT DRUG ABUSE

GENOTYPING SEROTONIN TRANSPORTER POLYMORPHISM 5-HTTLPR AMONG DRUG ADDICTS AND CONTROLS IN CROATIA AND SLOVENIA

Tina Jenuš¹, Tihana Lenac Roviš¹, Darko Roviš^{2,3}

¹Center for proteomics, Faculty of Medicine, University of Rijeka, Croatia

²Teaching Institute of Public Health of Primorsko-goranska County, Rijeka, Croatia

³Department for social medicine and epidemiology, Faculty of Medicine, University of Rijeka, Croatia

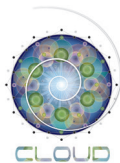
The serotonin transporter (5-HTT) is a protein responsible for reuptake of serotonin, a monoamine neurotransmitter, from the synaptic cleft into the presynaptic neuron. In humans, the SLC6A4 gene encodes 5-HTT protein. The promotor region of the SLC6A4 gene contains a polymorphism called 5-HTT-linked polymorphic region (5-HTTLPR or SERTPR) with a variable number of tandem repeats resulting in “short” (S) or “long” (L) allelic variants. The S allele leads to lower transcriptional efficiency of SLC6A4 gene. Furthermore, an additional A/G single nucleotide polymorphism (SNP) in the 5-HTTLPR alters transcriptional efficiency of the L allele in such a manner that the LG allele becomes functionally similar to the S allele. 5-HTTLPR polymorphism has been related to range of neuropsychiatric conditions including substance abuse-related disorders.

Our goal was to establish a method for genotyping the 5-HTTLPR genetic polymorphisms. Additional goal was to determine prevalence of the 5-HTTLPR genetic polymorphisms in addiction cohort and in non drug-injecting controls.

The addiction cohort included patients from the Centre for drug addiction at Teaching Institute of Public Health of Primorsko-goranska County (NZJZPGŽ)

(N=136) and from the similar drug center in Koper (N=33). The control cohort was composed of students and younger employees of the Medical faculty in Rijeka, NZJZPGŽ and the University of Primorska in Koper (N=171). Genomic DNA was isolated from participants' blood. Genotyping of S and L allele was performed by PCR amplification of DNA and, to differentiate between LG and LA alleles, the PCR product was subsequently digested with HpaII restriction enzyme.

Preliminary results from Croatian sample confirmed differences between the addiction cohort and the control group, showing statistically significant higher prevalence of S allele of the 5-HTTLPR in the substance abusing patients. To elucidate the observed relation between the genotype and the addiction phenotype, the effects of A/G SNP are still to be analyzed as well as the epigenetic variations affecting the transcriptional efficiency of the SLC6A4 gene.



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EPIDEMIOLOGIC DATA ON ILLICIT DRUG ABUSE

RESEARCH ABOUT USE OF NEW PSYCHOACTIVE SUBSTANCES (NPS) AMONG YOUNG PEOPLE IN SLOVENIA

Simona Šabić

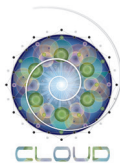
Združenje DrogArt, Ljubljana, Slovenia

Research was carried out in 2014 as a combination of qualitative (19 interviews with 26 persons, 15 – 32 years old, 18 male and 8 female) and quantitative research (on-line questionnaire with 249 completed responses; respondents were 15 – 40 years old, 51,8 % male in 48,2 % female).

Aim of research was to: (1) identify new patterns of drug use among young people using NPS in Slovenia, (2) to identify risks connected with NPS use and (3) identify users' needs in order to adapt and develop professional help and support addressing those needs. Special focus was put on 3-MMC use, because this drug is most commonly used NPS in Slovenia and became drug of choice among some younger users.

In qualitative research sample 67,9 % of respondents reported use of 3-MMC (among them 26,8 % using it for more than a year and 20,7 % for more than 40 times), following with methylone (43,0 %) and mephedrone (37,3 %). The most important findings of the research provide insight into health psychological and social consequences connected with NPS use reported by users, harm reduction strategies practiced among users, assessment of needs and risks connected to NPS use in order to adapt established programs in the harm reduction field.

During the qualitative research we approached a group of young NPS users representing high risk group of users, who were difficult to include in previously established harm reduction interventions within our programs, which called for adaptations in our outreach work and counseling.



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NEUROBIOLOGICAL ASPECTS OF ILLICIT DRUG ABUSE

SERUM LEVELS OF SUBSTANCE P AMONG DRUG USERS AND CONTROLS

Dolores Peruc

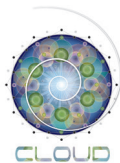
Teaching Institute for Public Health of Primorsko-goranska County, Croatia

Introduction: Substance P (SP) is neuropeptide of the tachykinin family, which also includes neurokinin A, neurokinin B, endokinins and hemokinins. Tachykinin NK-1 receptors and SP are involved in emotional responses to stress. The present study aimed to investigate serum levels of SP among illicit drug users and controls.

Samples and methods: We analyzed levels of SP in sera obtained from 172 drug addicts and 168 controls with Enzyme-Linked Immunosorbent Assay (Substance P ELISA Kit, Abcam, United Kingdom). 136 sera from drug addicts and 133 controls were collected in Rijeka (Croatia) while the rest of the samples were obtained from Slovenia. The study was conducted with the approval of the Ethical Committee of our institution.

Results: In control samples from Croatia, the obtained concentrations of SP ranged from 58-7000 pg/mL but only 6.8% of the samples had a concentration above 1000 pg/ml, whereas in 46.6% samples the concentration was 500-799 pg/ml. In the group of samples obtained from drug addicts from Croatia, 46% had the concentration of SP above 1000 pg/ml, while in 68.3% concentration was 800-2999 pg/ml. The average measured concentration in controls was 695 pg/ml and was twice lower than the average concentration in drug addicts, which is 1587 pg/ml. In control samples from Slovenia the obtained concentrations of SP ranged from 56-5890 pg/ml. 54,3% of the control samples had a concentration of SP lower than 1000 pg/ml. The average measured concentration in controls was 1473 pg/ml and was twice lower than the average concentration in drug addicts, which was 3476 pg/ml. The highest measured concentration was 37000 pg/ml and was obtained from a sample of drug addicts from Slovenia.

Conclusions: Our results show a significant difference in the average measured concentrations of SP between controls and drug addicts. Several high concentrations measured at controls are possible for people who occasionally use some drugs. The obtained results needs further analysis using data from psychological tests.



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EPIDEMIOLOGIC DATA ON ILLICIT DRUG ABUSE

BEHAVIORAL ADDICTIONS

Mirna Macur

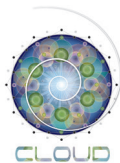
National Institute of Public Health, Ljubljana, Slovenia

We traditionally understand addiction in connection with various substances (alcohol, tobacco, illicit drugs), although it can be a result of a continuous harmful behaviors. Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. It is characterized by inability to consistently abstain, impairment in behavioral control, craving, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response (ASAM). There are several types of behavioral addictions, but only gambling addiction is recognised in DSM-V as Non-Substance-Related Disorder, whereas other types (problematic on-line gaming, sex addiction, shopping addiction, internet addiction etc.) are still subjects of intensive research.

We conducted a research on behavioral addictions in Slovenian primary schools. Representative sample of Slovenian 8th graders consisted of 1071 pupils, from which 125 belong to Koper health region.

Majority of 8th graders played computer games in last 12 months. They started to play at the age of 7.78 years on the average. They spend 1 hour per day from Monday and Friday for playing (boys 1.5 hours; girls 0.5 hours); and 2.4 hours on the average on Saturdays and Sundays (boys 3.4 hours; girls 1 hour). Preliminary results show lower level of gaming addiction in Koper region in comparison with Slovenian 8th graders, however bigger sample in Koper region is needed to verify this thesis.

Internet made gambling accessible to teenagers. In last 12 months 19.8% of 8th graders in Koper health region played lotto; 14.9% played other classical games; 12.4% played cards with friends for money; 15.6% played cards on the internet; 5% played roulette on the internet; 5.7% gambled something else on the internet; 18.8% bet on sports events; 8.3% played billiard or golf or bowling for money. Preliminary results show that problematic gamblers can be found already among 8th graders of primary schools, pathological gamblers as well.



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NEUROBIOLOGICAL ASPECTS OF ILLICIT DRUG ABUSE

BRAIN-DERIVED NEUROTROPHIC FACTOR: SERUM LEVELS AND BDNF VAL66MET POLYMORPHISM IN HEROIN ADDICTS

Zala Jenko Pražnikar^{1,2}, Ana Petelin^{1,2}, Suzana Vidic², Gorazd Drevenshek²

¹University of Primorska, Faculty of Health Sciences, Izola, Slovenia; ²University of Primorska, Faculty of Mathematics, Natural Sciences and Information Technologies, Koper, Slovenia

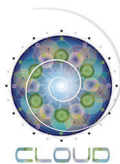
Biomarkers have been receiving increasing attention in the field of illicit drug use and addiction. They allow us to better understand the causes of illicit drug abuse, related clinical course of mental disorders and modifications by treatment. This study implements innovative diagnostics that comprise the determination of specific genetic markers and neuropeptides associated with illicit drug use. Within this scope it aims to implement the use of genotyping method for BDNF polymorphic region (Val66Met). BDNF – brain derived neurotrophic factor and its gene polymorphism may be important in synaptic plasticity and neuron survival, and may become a key target in the physiopathology of heroin use. Thus, we investigated the relationship between BDNF serum concentrations and BDNF Val66Met nucleotide polymorphism in heroin addicts.

Thirty-six heroin addicts and thirty-six gender and age-matched healthy controls were enrolled in this study. The study was approved by Slovenian National Medical Ethical Committee. Whole blood was collected into EDTA tubes and DNA extracted using Qiagen Mini Kit. The KBiosciences competitive allele-specific PCR SNP genotyping system (KASPar) was used to genotype BDNF polymorphic region. ELISA kit was used to analyze the BDNF serum levels.

We found that baseline BDNF serum levels were significantly higher in heroin addicts compared to controls, however, in heroin addicts, serum BDNF levels were negatively correlated with the length of heroin dependency. Long-term users had significantly lower serum BDNF levels than did short-term users. On the other hand, the distribution of the SNP was not significantly different between heroin users and controls. Nor were serum BDNF levels significantly different between Met/Met, Met/Val, and Val/Val carriers in each group. The similar results regarding distribution and serum levels were obtained in samples from Croatian partners.

We conclude that serum BDNF concentration in habitual heroin addicts are not affected by BDNF Val66Met gene variants, but by the length of heroin dependency. The associations between BDNF Val66Met polymorphism and heroin use behaviour will be analysed in the near future.

Keywords: brain-derived neurotrophic factor; heroin addict; biomarker; polymorphism



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COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

TRENDS AND POLICIES OF COMBATING DRUG ABUSE IN THE REPUBLIC OF CROATIA

Zeljko Petkovic

The Office for Combating Drugs Abuse of the Croatian Government

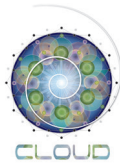
Systematic implementation of the National Strategy and Action Plan is a priority task of the Office for Combating Drugs Abuse of the Croatian Government and the entire system of state institutions and relevant ministries, counties and civil society organizations. The main role of the Office is monitoring the implementation of measures at both national and local level and coordination, which implies cooperation and compliance of different systems in the implementation of policies for combating drug abuse.

According to data from the Report in the year 2014, there were total of 7,812 persons treated in the health care system, which is 46 persons less than the previous year when there were treated 7,858 persons. Share of opiate addicts in the total number of treated patients is similar to that of previous years, amounting to 79.9% or 6,241 persons. Most opiate addicts are in some form of a substitution therapy, about 80% of them. Prevalence of infectious diseases related to drugs continues to show a low rate of HIV infection and a positive downward trend in hepatitis C (from 31.8% to 25.1%).

The system that deals with the treatment of addiction is stable, and is retaining addicts in treatment for longer periods of time, but there are still certain indicators that suggest there are some problems present in this field which require new solutions. Research shows that one of the major problems is increasingly frequent abuse of substitution therapy (methadone, buprenorphine) and also recently recorded are cases when substitution therapy becomes the first entry in the drug addiction disease. Psychosocial treatment in the context of particular institutions in the health care system is not sufficiently represented and structured, and there has been detected a need to strengthen a multidisciplinary approach, as well as inter-agency cooperation among the various systems in the field of treatment.

It is necessary to continue to strengthen and support the development of all professional and science-based approaches and programs in terms of doctrine and access to drug addiction treatment, but also to move in the direction of developing and establishing coherent policies towards addictions and addictive behaviors in Republic of Croatia.

Keywords: report, treatment, substitution therapy, trends and policies

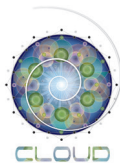


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NEUROBIOLOGICAL ASPECTS, INNOVATIVE DIAGNOSTICS AND MONITORING OF ILLICIT DRUG ABUSE

ASUITS, TRIESTE: METHODS OF BRAIN STIMULATION TO STUDY AND TREAT THE ADDICTION

Paolo Manganotti



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COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

HARM REDUCTION – EFFECTIVE RESPONSE TO THE NEEDS OF ACTIVE DRUG USERS AND SOCIETY

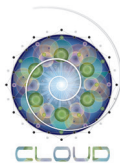
Ines Kvaternik

National Institute of Public Health, Slovenia

Harm reduction aims to reduce the adverse health, social, and economic consequences of drug use while the person is still using drugs. A defining feature is their focus on the prevention of drug-related harm rather than the prevention of drug use per se. Harm reduction strategies are evidence-based and most effective when adopted as a community-wide approach. Harm reduction is only one in a series of parallel strategies to address substance issues within a community; other strategies include prevention, treatment and enforcement. For the general population, with or without substance use issues, harm reduction is not a distant concept. It is part of daily life, including wearing a seat belt or choosing not to drink and drive.

The concept of Harm Reduction focuses on reducing harms to individual family and community and not simply on reducing use: accepting drug use is human and brings with it both harms and benefits sees substance use as a public health and human rights issue and not a criminal one. It does not promote drug use and does not judge drug use as good or bad it is morally neutral and non-coercive acknowledging that stopping drug use may not be realistic or desirable for everyone. Harm reduction provides practical strategies for reducing risks and harms and argues to any person should not be denied the access to services because of their drug use. It balances costs and benefits provides accurate information attempts to promote and facilitate access to care for drug misuse and mental health problems as well as engages drug users in a continuum of care from which they would otherwise be excluded.

To continue we will first present basic characteristics of harm reduction approach in the field of drugs and discussed certain differences in argumentation arising from the concept. In the following line of the presentation we will focus on the situation regarding harm reduction responses in Slovenia and in particular Coast - Karst Region.



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NEUROBIOLOGICAL ASPECTS, INNOVATIVE DIAGNOSTICS AND MONITORING OF ILLICIT DRUG ABUSE

ARTERIAL VARIATIONS ON THE BASE OF THE BRAIN IN HEROIN ADDICTS

Milena Trandafilović, Ljiljana Vasović
Institute of Anatomy, Faculty of Medicine, University of Niš

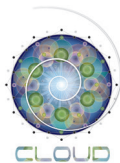
Background: Variations of cerebral arteries are results of morphological changes during prenatal development. Some of them are associated with certain vascular or non-vascular pathology. For example, it is defined that criminogenic character, as a psychological characteristic, can be associated with the infundibular widening of the posterior communicating artery (ACoP).

Objective: This morphological study had the aim to add new facts about arterial variations on the base of the brain in heroin addicts.

Methods: The analysis was performed on 387 human adult cadavers (aged 0 to 95 years; 217 males and 170 females) with different cause of death, and among them, 5 heroin addicts were analyzed separately. Descriptive analysis of morphological (ab)normalities and measurement of the outer diameter of arteries with ImageJ program were used.

Results: Heroin addicts (4 males and one female) were aged from 33 to 37. In one case, cerebral arterial circle (CAC) was octagon, but in the rest of cases, it was in the shape of a nonagon. The most variable artery was the anterior communicating artery. In general, arteries on the base of the brain in heroin addicts were smaller in caliber, in comparison with persons who were not heroin addicts. In the rest of cases, different variations were found: the CAC with ten vascular components, open CAC, transversal arterial anastomoses in the CAC, infundibular widening of the ACoP, partial or total duplication of the ACoP, and persistent carotido-vertebrobasilar anastomoses.

Conclusions: Heroin addicts didn't have some special angioarchitecture on the base of the brain and showed less arterial variations in comparison with the rest of analyzed population.



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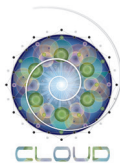
COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

HARM REDUCTION PROGRAMS AMONG DRUG USERS IN NORTH PRIMORSKA REGION

Luka Mrak

Šent - Slovenian Association for Mental Health

The aim of presentation is to describe the development of different services in North Primorska region, which can reduce harm in an everyday life among drug users. In 2006 it became evident that Nova Gorica City needed a supplementary approach to reach drug users on a daily basis. There was a substitution therapy center within the health care system. The center covered all users in the Region, including over 300 people prescribed with substitution therapy. Together with a constant growth of drug users arriving to the City grew also the number of issues related to this. A daily center for drug users was opened to moderate drug users' movement in Nova Gorica and to establish more sustainable circumstances for the community and drug users as well. The daily centre offers a needle exchange program, kitchen facilities, showers, a place to rest or engage in social activities, a storage room etc. A social worker is present to advise and offer psychosocial support to people in need and also other employees who organize daily activities. In 2008 an outreach program was initiated to cover the needs of other users in the region. A network of users in the entire region was designed. Every working day outreach workers visit users in different parts of the region with a modified van, covering the area from Bovec to Vipava and other parts in the wider Primorska Region. Nowadays, there are more than 200 people who use these services. This year we opened night shelter in Nova Gorica which can accommodate 10 people. Night shelter is complementary to the other two programs and we can finally offer people a more structural and integral approach to harm reduction. All these achievements encourage us to seek other solutions and possibilities to improve the living standard of everyone in the region.



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NEUROBIOLOGICAL ASPECTS, INNOVATIVE DIAGNOSTICS AND MONITORING OF ILLICIT DRUG ABUSE

INTERACTIONS BETWEEN GENETIC AND EPIGENETIC PROFILES, NEUROTROPIC BIOMARKERS, PSYCHOSOCIAL CONDITIONS AND OUTCOMES RELATED TO DRUG ADDICTIONS

Darko Roviš

Teaching Institute for Public Health of Primorsko-goranska County, Croatia

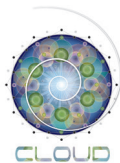
Background: This pilot study considering gene and environment interactions in relation to drug addiction is a part of cross border cooperation project entitled: “A comprehensive approach to the prevention, treatment and social and economic reintegration of illicit drug users, IPA CLOUD. The study seeks to determine the prevalence of genetic polymorphism profiles of 5-HTTLPR and BDNF regions and DNA methylation profile of 5-HTTLPR promoter, as well as the sera levels of BDNF, neuropeptide Y and Substance P among opiate drug addicts and among student population.

Objective: The aim is to determine interactions of the genetic and epigenetic profiles, neuromodulators and psychosocial conditions and outcomes, such as parental bonding, childhood maltreatment, stress exposure and coping skills, personal psychopathology and substance abuse.

Methods: A blood sample, 9 ml for serum preparation and 4 ml for DNA extraction, was taken from 135 drug addicts registered at Institute for Public Health, Rijeka and 137 control subjects-students and employees of University of Rijeka and Institute for Public Health, Rijeka. A psychosocial assessment included standardized questionnaires: PAI, BIS-11, CTQ, CD RISC, Risk Taking Scale, Parental Bonding Instrument, DUDIT and AUDIT.

Results: Preliminary results show significant differences between the two groups as well as interactions between measured conditions and outcomes.

Conclusions: A better understanding of interactions between genes, environmental conditions and psychosocial outcomes can stimulate development of individualized prevention and treatment intervention.



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COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

CONCEPT OF A DRUG CONSUMPTION ROOM IN SLOVENIA – HOW TO BEGIN

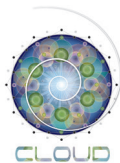
Borut Bah

Association for harm reduction 'Stigma', Ljubljana, Slovenia

The idea of establishing a drug consumption room (DCR) in Slovenia has existed for 20 years, as well as an awareness of the needs of the user scene for this program. Over this long period of time, official applications for the establishment of the program have been submitted. However, the process of establishing an official DCR only became possible in 2012, when criminal law was changed and allowed the implementation of such a program. The Commission on Narcotic Drugs of Slovenia went on to adopt guidelines and performance criteria in 2013. The National Institute of Public Health Koper and the non-governmental sector, or the Association of NGOs in the field of drugs, all participated in the preparation of the document, and included Svit Koper, DrogArt and Stigma. In 2015, Stigma received funding from the Ministry of Health to start a pilot project. The plan was to open a DCR in Ljubljana in March 2016, but new barriers have appeared and have postponed the opening until July 2016.

The presentation will introduce the activities that are already being carried out; the experience of similar programs abroad; research findings on the state of the user scene in Ljubljana; the problems which the pilot project faces; and finally, ideas on how to move forward.

Important objectives of the DCR include reducing the use of drugs in the local community and thereby easing public health concerns (reducing the risk of infection among the general population due to a small number of discarded/ used needles in the local community; less visible drug use in public places and the wellbeing of the population). Additional aims are: to provide drug users with space for the safer use of drugs within a controlled sterile environment; reducing deaths by overdose; a reduction in shared needles and therefore, infections in connection with the sharing of injecting equipment (HIV, Hepatitis C, Hepatitis B and bacterial infections). These objectives have been formed in the context of the presence of medical personnel providing users with the possibility of immediate effective treatment in cases of overdose and other injuries, as well as providing appropriate preventive health information.



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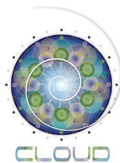
LIQUID CHROMATOGRAPHY-TANDEM MASS SPECTROMETRY ANALYSIS OF ILLICIT DRUG METABOLITES IN WASTEWATER

Paula Žurga

**Teaching Institute of Public Health of Primorsko-goranska County, Department of Health
Ecology**

Wastewater represents one of the main sources of entrance of different types of contaminants into the environment. With the introduction of powerful techniques like LC MS and LC MS MS, the focus of environmental scientists' interest has shifted from regulated non polar priority pollutants to more polar, mostly non-regulated contaminants. Illicit drugs have been identified as emerging contaminants in municipal wastewater, with emerging contaminants being defined as substances that are at present not known to cause impairments in water systems but have characteristics such as the ability to accumulate, stability in the environment, and toxicity that suggest that they could impact the integrity of water. Monitoring of illicit drugs in wastewater is therefore used for both environmental protection, to identify the source of and measure possible surface and drinking water contamination, and for forensics purposes: for estimation of collective drug consumption. The forensic approach estimates community drug consumption from concentration of target compounds in untreated water, flow rates in municipal wastewater treatment plant (WWTP), the population served by the WWTP, human excretion rates in urine for the target compounds and estimates of the drug dose. The assumption of the forensic approach is that monitoring of selected illicit drugs in representative wastewater samples could provide a basis for the assessment of the current consumption patterns and offers immediate info on changes in drug abuse trends.

The analysis of raw wastewater collected at the entrance of the central wastewater treatment plant of the city of Rijeka, Croatia has been done by Teaching Institute of Public Health of Primorsko-goranska County, Rijeka, Croatia. The twenty-four-hour volume-proportional composite samples of raw wastewater have been collected and analyzed for 14 illicit drugs and their metabolites with ESI-LC-MS-MS.



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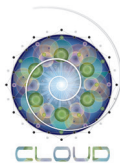
COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

CANNABIS: THE RELATIONSHIP BETWEEN SCIENCE, POLITICS AND PREJUDICE

Dušan Nolimal

National Institute of Public Health, Slovenia

All psychoactive substances (illicit or licit) have some degree of risk of harm associated with their use, but there are great differences in the immediacy and extent of the risks. Compared to alcohol, tobacco and some other drugs, cannabis represents a relatively low-risk drug. Recent advances in understanding of the human endocannabinoid system and related active cannabinoid ingredients of cannabis and accumulating patients' reports on the potential health benefits and growing public acceptance have also contributed to a revival of interest in medical cannabis. There is limited evidence suggesting that cannabis can be used to treat chronic pain, spasticity secondary to neurologic diseases, nausea and vomiting associated with cancer chemotherapy, pathological weight loss and in other uses, such as for epileptic seizures and glaucoma. However, the use of cannabis for medicine purposes has not been rigorously scientifically tested due to drug prohibition law. According to the Production of and Trade in Illicit Drugs Act the cannabis is listed by the Government of the Republic of Slovenia as an illegal group of plants and substances which are very dangerous for human health due to the severe consequences which can be caused by their abuse, and which are not used in medicine. Such classification of cannabis in the UN and the national system(s) represents a historical anomaly and is criticized by the international scientific community that it is not based on the true dangers of cannabis. This paper examines some of the key points relevant to the debate about cannabis policy in Slovenia. It provides a brief overview of the history of cannabis, the potential toxicity and risks of cannabis use and the public health implications of the effects of political ideology and related drug control policies. It exposes some myths about cannabis. It argues that ideology, advocacy and activism are poor substitutes for scientific evidence. The legal classification of cannabis should be reviewed at the earliest opportunity with the goal of facilitating the conduct of clinical research and development of cannabis-based medicines.



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NEUROBIOLOGICAL ASPECTS, INNOVATIVE DIAGNOSTICS AND MONITORING OF ILLICIT DRUG ABUSE

PARENTAL BONDING AMONG SUBSTANCE ABUSERS AND CONTROL GROUP

Roviš, D.^{1,2}, Mataija Redžović, A.¹ & Udovicich Corelli, D.¹

¹Teaching institute for public health of Primorsko-goranska county, Croatia

²Faculty of medicine, University of Rijeka, Croatia

Background

Research shows that early attachment between parents and child plays an important role in overall healthy development. Impaired parental bonding is a major risk factor for mental diseases, as well as substance abuse. Low parental care during childhood is frequently reported in the history of addicted individuals. Within Work package 3 „Innovative monitoring, diagnostics and epigenetics“ of the European territorial cooperation project IPA CLOUD a pilot study was designed focusing on gene and environment interactions, including type of parental bonding.

Objective

One of the aims of this study is to examine the psychosocial conditions and outcomes related to substance abuse, more specifically the differences between drug abusers and control group regarding parental bonding type.

Methods

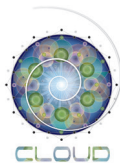
Data gathering was organized between December 2015 and February 2016 in Rijeka, Croatia. Two groups of examinees were involved: 135 drug abusers treated at the Institute for public health in Rijeka and 138 control subjects (students on University of Rijeka and employees of Institute for public health and University of Rijeka). They filled out a set of questionnaires including the Parental bonding instrument.

Results

Preliminary results show statistically significant differences between control group and drug abusers regarding two aspects of bonding: care and overprotection.

Conclusions

The results confirm the importance of parental bonding for the positive development. As such they should be considered when planning preventive activities in accordance with risk and protective factors approach.



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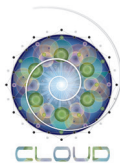
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CANNABIS SOCIAL CLUBS IN REPUBLIC SLOVENIA — OPTION FOR MORE DRUG ABUSE OR OPTION FOR USE OF CANNABIS WITHOUT STIGMATIZATION

Tomaz Koren

Zavod za informacijsko dejavnost in alternativno kulturo, Konoplja.org

The National Programme on illicit drugs for 2013–2020 in Slovenia anticipates option for developing the Cannabis social Club (CSC) in Slovenia. First official Cannabis social Club in Slovenia opened in 2012. After that year there has been 8 new clubs in Slovenia, which are running on the non-profit basis and some of them even without official registration. If we compare different models of Cannabis social clubs in Europe and Compassion Clubs in Canada, we can see, that CSC-model does not have any written regulations. CSCs are working on the foundation of harm reduction programs and self growing Cannabis Sativa for their members on the non-profit basis. The presentation will show different models, options and we will get answers for the questions: Are CSCs option of regulation for personal use or will we have commercialisation of CSC like in Spain? Can we expect more abuse of Cannabis with the establishing of CSC in Slovenia?



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FAMILY ENVIRONMENTAL FACTORS: THE ROLE OF CHILDHOOD TRAUMA AND PARENTAL BONDING IN DRUG USE DISORDER

Maša Černelič Bizjak^{1,2}, Vesna Jug¹

¹University of Primorska, Faculty of Mathematics, Natural Sciences and Information
Technologies, Slovenia

²University of Primorska, Faculty of Health Sciences, Slovenia

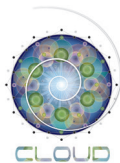
Addiction is a complex disorder with several interacting factors, including environmental factors. Focusing on environmental factors, the family factors have long been recognized as to have the crucial role in the development of a range of psychopathology and also in substance use disorders. In this study, we compared the frequency and intensity of childhood traumas in drug-dependent patients compared to a healthy control group without drug use disorder. The aim was also to assess retrospectively the early parental relationships in a group of adults with drug use disorder and in a control group.

This cross-sectional study enrolled 36 outpatients (24 male and 12 female, aged 37.75 ± 5.5 years) drawn from methadone and residential drug-free treatment programs with a drug use disorder (DUD). The control group consisted of 32 volunteers (21 male and 11 female, aged 37.03 ± 5.9 years), resembling the treatment group in demographic variables (gender, age) but not receiving the active medication or have drug addiction. Two groups of participants underwent a structured clinical interview to assess the use of drugs and other health related information. Quality of the attachment or bond with parents was measured with Parental Bonding instrument (PBI). Neglect (physical or emotional) and/or abuse (emotional, physical, or sexual) were evaluated by the Childhood Trauma Questionnaire (CTQ).

Subjects with DUD presented significantly lower paternal ($p = 0.005$) care and maternal care ($p = 0.050$) compared to the control group, as well as higher paternal protection ($p = 0.004$). In relation to the frequency of abuse and neglect, as evaluated by the CTQ, there were significant differences among two groups in regards to emotional abuse ($p < 0.001$), physical abuse ($p < 0.001$), sexual abuse ($p = 0.010$), emotional neglect ($p = 0.001$), and physical neglect ($p = 0.034$).

Subjects with drug addiction reported lower levels of care from both parents and tended to experience father as more controlling than healthy controls. Our results are in line with studies which repeatedly report lower care and high parental control, a parenting style defined also as “affectionless control”. Next, we observed a higher frequency and severity of all five types of child maltreatment and traumas among drugs addictive group in comparison with the control group.

Keywords: Drug use, Parental bonding instrument, childhood trauma, abuse



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COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

WHY A COMPREHENSIVE APPROACH TO TREATING ADDICTIONS HAS NOT YET BEEN REALIZED?

Bogdan Polajner

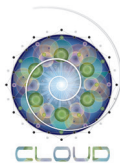
**University of Primorska, Faculty of Mathematics, Natural Sciences and Information
Technologies, Koper, Slovenia**

Formally, we often talk about the comprehensive approach to the treatment of addiction, but in practice, this has not actually taken place. This article will highlight some of the main reasons why. For a truly holistic addiction treatment it is necessary:

- to move away from the narrow prevailing image of Man as a (only) bio-psycho-social being, and to progress towards an integral anthropological image of Man (not integrating the ontological aspect of addiction);
- to integrate the biological and psychological addiction “de-conditioning” (without this, we do not treat unhealthy conditional reflex);
- to equally support all fundamental areas of comprehensive treatment, without giving preferential treatment to one field (e.g. only the medical aspect);
- to eliminate the deception of terminology (substitution “treatment” is not really a treatment, even if some countries define it as such. It simply replaces one (illicit) drug with another (legal) drug and so just deals with the symptoms and not with the causes of addiction);
- to correct data protection laws, as institutions need to exchange information about drug users with each other (the current situation distorts epidemiological data);
- to complement global drug policy with this approach, which will focus on preventing the human need to stun.

This article also presents many other key aspects we need to achieve so that we can talk about a truly comprehensive approach towards addiction.

Finally, the article presents an example of good practice: an approach to treating addiction following the methods of “Project Man”, which - compared with other approaches - aims to be at least partially closer to a truly comprehensive treatment of addiction.



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ACTIONS AND ACTIVITIES IN THE FIELD OF ILLICIT DRUG ABUSE

APPROACHES TO YOUNG PEOPLE WHO EXPERIMENT WITH DRUGS

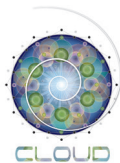
Anja Mihevc

NGO Association DrogArt, Ljubljana, Slovenia

The Association DrogArt is a nongovernmental organization which works in the field of drug and alcohol related harm reduction among young people. Harm reduction is a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use and incorporates a spectrum of strategies from safer use, to manage use to abstinence to meet drug users »where they are«. Harm reduction strategy is a good approach to young people who just need information and support for taking responsible decisions.

Work at DrogArt includes outreach work (providing information to young people in bars, parties, open spaces), prevention and harm reduction over the internet, counseling to young people that encounter problems related to alcohol or illicit drug (including new psychoactive drugs) use. Our counseling approach is based on the principles of harm reduction psychotherapy, cognitive behavioral therapy and motivational interviewing.

Harm reduction psychotherapy is an effective treatment that focuses on the whole person, not just addictive behaviors. In harm reduction therapy, any treatment goal that helps reduce harm to an individual is valid. Both abstinence and moderate drug and alcohol use, fall under the umbrella of harm reduction.



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COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

REINTEGRATION OF DRUG USERS INTO WORKING ENVIRONMENTS

Eva Boštjančič

Faculty of Arts, University of Ljubljana, Slovenia

Introduction

Unemployment represents a serious issue among drug users. It not only causes financial problems, but also could lead to marginalization due to a lack of social support. The stigma of drug users is one of the main barriers to employment for this particularly vulnerable part of the population.

Purpose

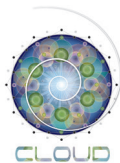
This presentation will focus on the several steps that can lead to successful employment, as well as the factors that threaten to undermine this aim. The crucial environmental, social and personal factors that help build a drug user's career will be introduced.

Results

Various modes of integration exist within Europe: transitional occupation; the creation of permanent self-financed jobs; professional integration with permanent subsidies; and socialization through a productive activity. On the other hand, the impact of on-the-job performance is one of the most important factors for predicting the success rate of job reintegration and is only one of the several stigmatizing factors related to acceptance at work.

Conclusion

Stigma is a crucial contributing factor to the understanding and acceptance of drug users as coworkers. The stigma associated with drug users usually hinders access to employment and contributes to the exclusion of those with severe drugs problems from the labor market. Their acceptance at work is based on attitudes related to perceived disability, fairness of accommodation and discriminatory employment judgments. If such perceptions could be changed, there would be immediate benefits for the acceptance and inclusion of employees (ex-drug users).



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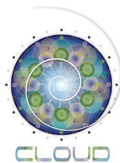
ACTIONS AND ACTIVITIES IN THE FIELD OF ILLICIT DRUG ABUSE

WHAT ROLE CAN DIGITAL INTERVENTIONS PLAY IN DRUG ADDICTION TREATMENT?

Ildiko Tombor

**Cancer Research UK Health Behaviour Research Centre, Department of Epidemiology and
Public Health, University College London**

The widespread penetration of the internet and mobile technologies, and a great extent to which these technologies are integrated into people's life provide an opportunity to use them as novel ways of tackling various drug addictions. Digital interventions, such as websites, text messages programmes and smartphone apps, are designed to have a wide reach and engage people who would not be motivated or able to attend face-to-face support. Further advantages of digital interventions include that they permit high fidelity of intervention delivery and a relatively low cost per user. However, the development and evaluation of digital interventions also present some major challenges such as determining the optimal intervention content, tailoring the interventions to specific populations and increasing user engagement. This presentation will provide a general overview of digital interventions in the field of drug addiction treatment, address some of the challenges and offer potential solutions for these through examples of interventions that have been specifically designed to tackle tobacco smoking and excessive alcohol consumption.



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COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

REINTEGRATION PROGRAM, DESIGNED FOR FORMER DRUG USERS

Darja Kocjančič
NGO “Hope” Society, Ljubljana, Slovenia

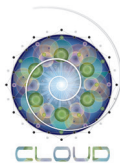
Introduction: The “Reintegration” program was established in 1999 as part of a series of programs connected with the non-governmental organization »HOPE« society, located in Ljubljana. It is the first residential program in Slovenia of its kind. It operates as a completely independent program and does not form part of a therapeutic community, a fact which ensures greater accessibility for those in need.

Purpose: The Reintegration Program is designed for people who have experienced addiction in the past and are currently practicing abstinence. They all face the same challenge: how to live after quitting drugs.

Methods: In terms of professional practice, we use the concept of constructive social work, which is based on the ethics of participation, and so initiate the relationship from the client’s perspective. The practicality of personal plans are tested by focusing on the experimental orientation of decision making. We work proactively with the client and form plans in with a view to harm reduction. We pay attention to the relationship between supervision and assistance, which is always a challenge. In addressing the problem of relapse or failure, we try to use reflection and dialogue.

Results: We have recorded an approximate success rate of 30%, which has been assessed on the basis of post-addiction employment, improved health conditions, substantial changes in habits and social interactions.

Conclusions: The program enables our clients to achieve a better quality of life compared to lifestyles beforehand. The program allows former users to achieve improved quality in the field of general well-being and health, a better understanding of self-concept in the social environment, the establishment of appropriate family relationships, educational and working achievements, as well as proper housing and safety.



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ACTIONS AND ACTIVITIES IN THE FIELD OF ILLICIT DRUG ABUSE

PROTOTYPE OF AN E-CONTENT PRESENTING THE SOCIAL REINTEGRATION PROCESS OF ILLICIT DRUG USERS

Tea Novak, Patrik Pucer, Vesna Grahovac in Boštjan Žvanut

Background

Clear definition of the social and economic reintegration process of illicit drugs users is very important for the correct and effective reintegration of this population. The results of literature review and other relevant resources indicate that there is no available e-learning content presenting the aforementioned process.

Objective

The objective of our study were: (1) identification of the core elements of the social and economic reintegration of illicit drug users protocol; (2) development of e-content of the aforementioned process tailored to the Slovenian context; and (3) evaluation of the developed e-content.

Methods:

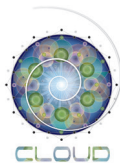
After a systematic literature review and interviews with experts in this field the prototype of e-content representing the aforementioned process was developed by using Courselab 2.4 and Bitstrips. The developed e-content was evaluated by two evaluators, experts in this field.

Results

Both evaluators confirmed that the developed prototype vividly represents the social reintegration process of illicit drug users. Furthermore, they proposed some corrections and useful suggestions for improving it, which were considered in the final e-content.

Conclusions

The developed prototype is a valid starting point for constructing of the final version of e-content representing the social reintegration process of illicit drug users to the broader public. Currently this content is available in Slovenian and Croatian language.



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COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

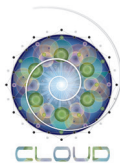
REINTEGRATION CENTRE, PROJECT “ČLOVEK” ASSOCIATION: SOME GOOD PRACTISE MODELS AT COMPREHENSIVE TREATMENT OF ILLICIT DRUG USERS

Roman Koštal

Reintegration Centre Ljubljana, Slovenia

The Reintegration Centre (RC) is the final phase of the “Projekt Človek” programme. The programme provides the user with professional help and support in maintaining long-term abstinence and reintegration into society and comprises of three consecutive phases, each lasting at least six months, or approximately 18 months in total. The programme takes place in Ljubljana; its participants are persons abstaining from alcohol or drugs that have developed a (self-) support system in the rehabilitation process that is sufficient for the process of reintegration into society. Over the 10 years of providing the inpatient CR programme some models of good practice are emerged (longer-termed (in/out patient) programme holistic client approach relationship based model of co-supporting explicit and individualized models of employment training group sessions for attaining and developing social skills and healthy social networks developing support. Key changes over the period mainly refers to necessity that outpatient models of programs was expanded into an inpatient program different type of client emerged over the period (comorbidity issues) and of course to the circumstances at the national labor market and different employment dynamic.

Over the presentation models of good practice inside the context of changes mentioned above difficulties challenges and some statistical data will be presented.



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ACTIONS AND ACTIVITIES IN THE FIELD OF ILLICIT DRUG ABUSE

ECARE – ACTIVE INVOLVEMENT OF THE PATIENTS IN THE CHRONIC DISEASE MANAGEMENT PROCESS

Tatjana Zrimec, Mate Beštek, Iztok Cukjati, Blaž Kurent, Andrej Brodnik
University of Primorska, Andrej Marusic Institut

Background

The treatment of patients with chronic diseases is becoming one of the most important areas of research due to the increasing number of those conditions. It has been found that approximately 70-80% of patients with chronic conditions can be managed with supported self-care. We have developed an eCare web-portal for self-management and behavior change for chronic diseases and disease prevention.

Objectives

To clinically evaluate the success of the eCare system through randomized control trials (RCT) for self-management of asthma and diabetes type II as well as clinical trials of preventive interventions, eWeight-loss and eSport.

Methods

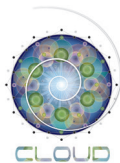
The E-health application is patient centered. It supports multiple user roles and activities including patients, medical professionals and relatives. The E-health application contains a number of tools including: self-care support, decision making aids, disease specific and general health education, communication with health care professionals. A similar set of tools is available for medical professionals for monitoring, controlling, coordinating and supervising the care plans of their patients.

Results

The eCare applications for supporting self-management of two chronic diseases and two preventive interventions were implemented and deployed. All clinical trials were approved by the Ethics Committee. In the three-year period, the clinical trials were successfully completed and the collected data is prepared to be analyzed.

Conclusion

The eCare system was successfully used for several interventions. Collected data from the clinical trials will enable the evaluation of each eCare application. We believe that by providing innovative tools for showing patients their current health status in the form of informative graphical and numerical representations, as well as access to the whole health status history can result in behavior change. This in turn will improve their health status.



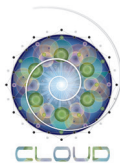
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COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

ASSESSING WORK AND EMPLOYMENT CAPABILITY OF REHABILITATED ADDICTS

Suzana Gladović and Melita Žontar
Reintegration Centre, Kranj, Slovenia

At the Reintegration centre we have been noticing that rehabilitated addicts are having trouble finding and maintaining employment. We organised a round table to which representatives of the Employment Services of Republic of Slovenia, CenterKonture (the concessionaire of employment rehabilitation for the disabled), social enterprise of Vincenc Drakslar Foundation and other reintegration programmes were invited. The result of the round table was an initiative proposing implementation of a system for assessing work and employment capability of former addicts as well as changes in employment policies for former addicts. The initiative was presented to the Ministry of Labour, Family, Social Affairs and Equal Opportunities. One of the key objectives of the reintegration processes is integration or inclusion of rehabilitated addicts into the labour market. The employment is important not only for the individuals who regain their sense of self-worth and confidence but for the society as well, as the individuals once more become its active members. Suitable long-term employment greatly decreases the risk factors for reoccurrence of the addiction. Addictions results in specific traits that greatly affect the ability to participate and compete in the labour market as well as the ability to maintain employment. We agreed that rehabilitated addicts should be included into the group of vulnerable employment seekers. We could follow the example of the employment rehabilitation for the disabled and adjust it accordingly. Easier employment in social enterprises should be enabled. We should be careful that rehabilitated addicts are not further stigmatized. We made numerous proposals based on cooperation between different sectors and institutions and prepared a pilot project. We believe that these changes would be beneficial from the financial perspective of the state as well.



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DRUG ABUSE AND NEUROENDOCRINE ABNORMALITY: WITH SPECIAL REFERENCE ECSTASY USE

Kim Wollf
King's College London, UK

Drug abuse poses a significant challenge to normal body homeostasis resulting in acute and long-term changes. Drug use is thought to involve neuroadaptation relating to learning and memory, at both cellular and system levels. There has been growing interest in the neuro-hypophyseal peptides oxytocin and vasopressin – in modulating adaption to drug addiction.

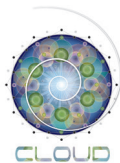
It is estimated that there are half a million users of 3,4-methylenedioxymethamphetamine (MDMA[™]“ecstasy[™]”) every week in the UK use being predominantly associated with clubbing. The neuroendocrine effects of drug use especially MDMA is of growing interest: the possibility of hypothalamic-pituitary-adrenal (HPA) axis dysfunction and the magnitude of this in relation to drug abuse will be discussed.

Oxytocin and vasopressin play an important role in modulating a range of social and emotional behaviours including romantic attachment parent-infant bonding and psychological distress: oxytocin and vasopressin appear to play sex-specific roles in the social domain – oxytocin being active in females and vasopressin in males. Oxytocin is released in response to touch and during social interaction which is why the “empathogen” ecstasy is of interest.

In a study “in the field” on 51 self nominating drug users (18 women 33 men) who were experienced clubbers and had all used ‘ecstasy’ previously we conducted urine toxicology and blood tests. Of the 31 subjects whose urine tested positive 21 clubbers screened positive for MDMA. Eight clubbers had blood alcohol levels ranging from 23-106mg/dL of which only one used in combination with MDMA. The other main substance used was cannabis

Plasma cortisol concentrations increased in both the group taking MDMA and those who did not. However the increase in the former group was greater the concentrations being 670.5 ± 101.6 as compared to 411.5 ± 65 mmol/l. The mean plasma vasopressin concentration in the MDMA group increased from a mean of 2.1 ± 0.6 pmol/l to 2.8 ± 0.9 pmol/l while the values in the other group fell from 2.5 ± 0.8 to 2.1 ± 0.8 pmol/l. Mean plasma oxytocin concentrations fell significantly ($p < 0.05$) after ingestion of MDMA from 4.9 ± 0.48 pmol/l to 3.6 ± 0.52 pmol/l.

These findings of neuroendocrine activity will be considered with reference to the international literature and with special attention to ecstasy use.



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DECRIMINALISATION: A PREVENTIVE AND HEALTH PROMOTION APPROACH

Alcina Lo

**SICAD (General-Directorate for Intervention on Addictive Behaviors and Dependencies),
Portugal**

In Portugal the decriminalisation paradigm of drug use fits a preventive and health promotion approach, of use and abuse dissuasion, operated by specialized services (Commissions for dissuasion of drug addiction), which are integrated into a community network. The use of drugs is still forbidden nevertheless it is an administrative offence sanctioned with measures which main propose is to change risk behaviours and reduce the use of drugs.

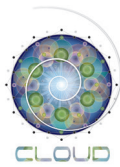
In the nineties Portugal lived dramatic moments of heroin use with all the associated impact on individual and public health. Humanism and pragmatism underpinned policy decisions and the definition of decriminalisation approach, which also facilitated the emergence of other health measures.

Since then, within a decriminalization framework of personal consumption and possession of drugs for personal use, the global Portuguese policy comprises a comprehensive approach to supply and demand reduction, with an extending public specialized treatment service network; harm reduction responses; primary prevention also commissioned with civil society; social reintegration programs and positive discrimination regarding assess to employment. Scientific research and training were and still are priorities.

The integrated approach translates on the ground the comprehensive and balanced model and policies, formally accepted by an interministerial council and embodied in national plans since then.

Given the results of the adopted policies and the data of the last national reports, nowadays the investment in the prevention is appointed as a priority. So, the early intervention approach among young cannabis users and the signs of risk situations set a strategic option from the decriminalisation approach. Currently, this preventive dimension constitutes a concerted choice with strategic partners, particularly with the security forces but also with other partners of the network, with answers that meet the needs of the offenders.

In this context and in the view of the preventive potential of the law, in 2013 the Model of the approach followed by decriminalisation was redefined, with the following goals: (1) organize and harmonize the Dissuasion Commissions intervention; (2) increase the levels of quality and effectiveness of responses and interventions; (3) enable a common basis for monitoring and evaluation.

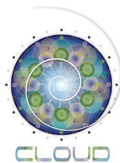


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These guidelines comprise three phases:

- (1) Offender's assessment.
- (2) Adequate motivational and brief Interventions.
- (3) Evaluation and follow up.

At this moment we are conducting a study on the effects of the activity of the Commissions for Dissuasion of addiction have on the offenders. This is a quantitative and longitudinal study that relates the life story of these individuals before and after the intervention that was addressed to them. Although the study is not yet concluded the results are truly promising.



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COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

POLITIKA I INTEGRALNI PRISTUP TRETMANU OVISNIKA U REPUBLICI HRVATSKOJ

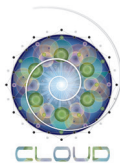
Prof.dr.sc. Slavko Sakoman

Nacionalnom strategijom suzbijanja zloporabe droga u RH (Sakoman, 1995.) reaffirmira se Hudolinov socijalno-medicinski pristup (utemeljen sredinom šezdesetih za alkoholizam) u pristupu tretmanu ovisnosti kao kronične, recidivirajuće bolesti koju treba liječiti po istim temeljnim principima kao i sve druge kronične bolesti. Populaciju neliječenih ovisnika treba promatrati kao „most“ koji povezuje kriminalni sustav s jedne i rizičnu populaciju još nekontaminiranih mladih s druge strane. Tim „mostom“ u jednom smjeru putuje droga a u drugom se vraća novac. Jedini je način opstruirati tu društveno pogubnu interakciju, ovisnike „micati sa ulica“ mjerama što ranijeg otkrivanja i privlačenja u sustave stručne pomoći i medicinskog tretmana. Svaki neliječeni ovisnik će svojim osobnim štetnim utjecajem i nuđenjem droge uvući u problem nekoliko osoba. Iz toga izvire temeljno polazište u kreiranju politike tretmana; Nije moguće postići bitnu redukciju potrošnje droga, osigurati adekvatnu zaštitu još zdrave populacije mladih i spriječiti brojne sekundarne štetne posljedice (širenje virusnih infekcija, kriminala, smrtnost, propadanje obitelji, ekonomske štete...), ako se većina ovisnika ostane „na ulici“ bez ikakvog stručnog nadzora i pomoći pod kontrolom kriminala i izvrgnuta kriminalizaciji kroz djelovanje „skupog“ represivnog aparata.

Tri su načela dobre politike tretmana u Hrvatskoj;

Što ranije otkrivati konzumente droga i ovisnike, b) Što veći broj te populacije privući u programe tretmana i „pokriti“ ih liječenjem, c) Ovisnike koji su započeli liječenje, što duže zadržati u procesu tretman (retencija).

Kao odgovor na temeljne atribucije ovisnosti kao bolesti (kronična, recidivirajuća), liječenje ovisnika je dugotrajan proces u kojem se u okviru Hrvatskog modela koristi individualizirano kreiranje, dugotrajni, pretežito izvan bolnički kompleksni postupak koji uključuje niz elemenata: Farmakoterapija, psihoterapija (najbolje bihevioralno-kogn. tipa), preodgoj (poboljšanje socijalnog ponašanja i smanjenje rizika nezakonitog ponašanja), pomoć u traženju smisla i poboljšanja kvalitete života, psihoedukacija, obiteljski postupak, psihosocijalne intervencije (prevencija socijalne izolacije, socijalna rehabilitacija i reintegracija), hospitalne intervencije, mjere prevencije širenja virusnih bolesti, drug testing, paralelno liječenje komorbidnih psihičkih poremećaja i somatskih bolesti, pripreme po potrebi radi odlaska na socijalnu rehabilitaciju u terapijsku zajednicu.

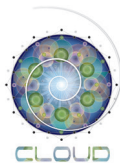


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Liječenje heroinskih ovisnika je dugotrajan (pa i doživotan) proces, s nepredvidivom dinamikom i konačnim ishodom, a provode ga u najvećoj mjeri specijalizirani interdisciplinarni stručni timovi mreže Službi za mentalno zdravlje, prevenciju i izvanbolničko liječenje ovisnosti (Centri) Županijskih zavoda za javno zdravstvo u suradnji s liječnicima opće/obiteljske medicine (svaki opijatski ovisnik svoju zamjensku terapiju dobiva od svog odabranog GP). To je glavna značajka “Hrvatskog decentraliziranog modela” koji, uz visoku stručnost, osigurava bolesnicima i laku dostupnost besplatne specijalizirane medicinske pomoći i potrebnih lijekova.



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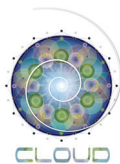
EEG/TMS

TRANSCRANIAL MAGNETIC STIMULATION OF DORSOLATERAL PREFRONTAL CORTEX REDUCES COCAINE USE: A PILOT STUDY

Alberto Terraneo

Studio Medico Gallimberti-Bonci, Padova, Italy

Italy Recent animal studies demonstrate that compulsive cocaine seeking strongly reduces prelimbic cortex (PLC) activity, while optogenetic stimulation of this brain area significantly inhibits compulsive cocaine seeking, providing a strong rationale for applying brain stimulation to reduce cocaine consumption. Even if there are extraordinarily large anatomical diversity between the rodent and the human frontal/anterior cortices, closest functional homolog of the rodent PLC is dorsolateral prefrontal cortex (DLPFC). A direct clinical translation of the previous preclinical literature could be attempted by testing the hypothesis that electrical stimulation of the DLPFC significantly decreases compulsive cocaine seeking behaviors. In this study, we employed repetitive transcranial magnetic stimulation (rTMS), to test if DLPFC stimulation might prevent cocaine use in humans. The present preliminary findings support the safety of rTMS in cocaine-addicted patients, and suggest its potential therapeutic role for rTMS-driven PFC stimulation in reducing cocaine use, providing a strong rationale for developing larger placebo-controlled studies.



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COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

DRUG ADDICTION TREATMENT PROGRAMS IN SLOVENIA

Andrej Kastelic

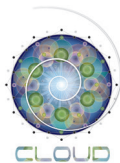
University Psychiatric Clinic Ljubljana, Center for treatment of drug addiction Slovenia

Since 1995, Slovenia established 18 centers for prevention and treatment of drug addiction (CPZOPD). In 2003, the Centre for treatment of drug addicts in the Psychiatric Clinic Ljubljana (PCL) has been established; where since 1995 the Department of detoxification has been operating. The substitution treatment with methadone in Slovenia started in 1990. In 2004 new medicine buprenorphine was registered for this type of treatment, along with slowly releasing morphine in 2005 and buprenorphine in combination with naloxone in 2007. Additionally in 2015, in the network of centers for outpatient prevention and treatment of drug addiction, 3719 patients were treated, from which 3261 were treated with substitution therapy. In the year 2014, 589 individuals in prisons also received these types of medicine. In the Center for the treatment of drug addicts (PCL) there were 524 ambulatory patients, 176 hospital and 95 patients in a daily care hospital; that is a special support program for daily care available within hospitals for individuals using drugs unable to be stabilized in an outpatient treatment. There is also a special program available for people with diagnosed comorbidity and mental disorders (dual diagnosis).

In Slovenia, the treatment for patients with dual diagnoses takes place in the Center for treatment of drug addicts at the University Psychiatric Clinic PCL. In the autumn 2009 the first pilot program of daily hospital was introduced for treatment of patients with dual diagnoses and in November 2015 we opened a special hospital department.

Among the activities in the CPZOPD and clinics we also include substitution programs for the treatment of opioid-dependent drug addicts. Substitution therapy treatment is valuable because it helps opioid drug addicts to reduce the exposure of high-risk behaviors as well as it helps them in social and health related stabilization of addiction.

Thought this year the expansion of the network of outpatient treatment centers for prevention and treatment of drug addiction is highly necessary, because the existing centers do not cover whole Slovenia, thus equal access for all residents is not provided. It is essential to establish the operation of the program, centers in Koroška, Ptuj and Bela Krajina from existing funds. We also have to spray out the network in Ljubljana to develop at least two smaller centers (one for patients with dual diagnosis within the Centre for the treatment of drug addicts Ljubljana Psychiatric Hospital), furthermore mobile units are being set up.

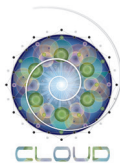


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This requires above all the willingness of all involved and the will and the support of all those who can do anything in order to help. Much needed activities and actions should not be stopped because of prejudices, inadequate knowledge, and ignorance and moralized thinking; which constantly hinder the development and implementation of scientific findings in drug addiction treatment, in particular in the field of the substitution therapy.

This summary is adapted by:

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EEG/TMS

TMS TREATMENT IN COCAINE ADDICTION: THREE YEARS OF EXPERIENCE, PROS AND CONS.

Luigi Galimberti

Studio Medico Gallimberti-Bonci, Padova, Italy

Addictive disorders are chronic, relapsing conditions with a multifactorial etiology that includes genetic, neurobiological, psychological, and environmental components.

Historically, the mainstay of addiction treatment in the United States has been psychosocial treatment. However, advances in understanding the neurobiology of addictions have identified brain pathways that may represent the target of effective medications.

The growing understanding of the neurobiology of addictions has led to the development of pharmacological agents that can complement psychosocial treatment approaches.

Medications currently approved are effective but their efficiency are in the low to medium range.

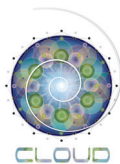
Furthermore, some medications need to be taken very frequently, may be associated with side-effects, which may be worsened for the risk of drug-drug interactions; concomitant use of alcohol and/or drug of abuse, and concomitant medical conditions (e.g. liver failure in alcoholic patients).

As a consequence, in recent years, growing attention has been paid to the potential development on novel alternative biologically-based approaches to treat addictions, among which some brain stimulation techniques have emerged as safe and potentially effective treatments.

Dr. Terraneo illustrated the rationale of TMS treatment in the cocaine addiction, in a case control study.

In my talk I will describe the preliminary results obtained in an observational research on about 200 patients over a period of about 3 years with rTMS and the pros and the cons of this treatment.

I will also talk about the general approach to such research, and how to develop a research method.



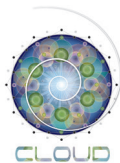
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COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

DRUG PREVENTION QUALITY STANDARDS

Katja Rostohar, Marijana Kašnik
National Institut of Public Health, Ljubljana, Slovenia

There are many approaches current and developing in the world for the implementation of preventive activities and treatment for drug addictions. So many stakeholders, such as EMCDDA, Pompidou, UNODC, NIDA and other smaller organizations carry out activities that are also relevant to the Slovenian situation. Their approaches cover quality standards, strategies, professional guidance, recommendations, evaluation and best practices, which include a variety of activities, purposes, guidelines and other activities that contribute to a more organized and qualified work in the field of prevention in a given environment. Recommendations of stakeholders are directed towards the implementation of activities that are evidence-based and adjusted to the needs of the target groups and the environment, as well as they work towards to achieve the best results, where the programs or activities are cost-effective and caring on for the minimal risk for target population and the environment. For Slovenia, the National Institute of Public Health has drafted quality standards for prevention programs, where coordination is taking place on a cross-sectoral and multidisciplinary level, in cooperation with governmental and non-governmental sectors. Formulated standards derive and summarize from the European quality standards in particular with a view to facilitating comparisons, evidence and knowledge exchange between different EU countries. Standards ensure an empirically derived reference framework for bridging the gap between science, policy and practice, and provide a benchmark to help assess whether individual activity represents a high quality. Standards are placed within eight broad stages that are arranged in chronological order: (1) needs assessment, (2) resource assessment, (3) program formulation, (4) intervention design, (5) management and mobilization of resources, (6) delivery and monitoring, (7) final evaluation, (8) dissemination and improvement. Besides these stages four cross-cutting considerations are included as an important element of quality standards which are included in (A) sustainability and funding, (B) communication and stakeholder involvement; (C) staff development, (D) ethical drug prevention. Each set contains at least two levels of standards, named as basic standards or additional professional standards.



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TMS BASED TREATMENT OF ADDICTION AND MOOD DISORDERS

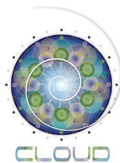
Jure Bon, Ruben Perellón Alfonso, Indre Pileckyte

Laboratory for Cognitive Neuroscience, Department of Neurology, Ljubljana

Major depressive disorder (MDD), is a mental disorder characterized by feelings of low self-esteem, emptiness, anxiety and loss of interest for otherwise pleasurable activities. It can be severely disabling for the sufferers, negatively affecting both their private and public lives, habits and general health. MDD is most commonly treated pharmacologically with antidepressants and use of psychotherapy, however a sizeable portion of patients fail to respond to such treatment, developing a condition called treatment resistant depression (TRD). The currently most effective way of treating TRD is by the use of electroconvulsive therapy (ECT), a method of widespread stimulation of brains' cortical areas and deep structures by the use of a direct electric current. Recent years have brought forward other, less invasive brain stimulation methods as TRD treatment, perhaps most notably repetitive Transcranial Magnetic Stimulation (rTMS). One of the novel approaches to rTMS are Theta Burst Stimulation (TBS) protocols which represent probably more physiological way to stimulate brain networks than traditional TMS protocols. We will present basic background on TMS methods and current guidelines on TMS treatment of mood and addiction disorders.

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Izola, 20th – 21st May 2016

COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

SAFE HOUSE FOR FEMALE DRUG ABUSERS AND VICTIMS OF VIOLENCE

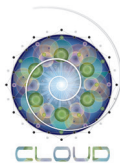
Eva Rogina

Association for harm reduction 'Stigma', Ljubljana, Slovenia

The safe house 'Stigma' was established to meet the needs of female drug abusers who were, or still are, victims of violence and need a safe place to stay. Its users are women who use illegal drugs, as well as those who are on substitution therapy and have experienced violence within the family, in partnerships or through street violence at the hands of pimps (procurers).

Abuse and violence to which they have been subjected leads to traumatic experience that have long term negative consequences from which they are unable to recover by themselves. Fear causes them to experience feelings of disempowerment and weakness. Having found themselves caught up in unbearable circumstances, they increase the dose of drugs in order to survive. By joining the program, they have the possibility of a safe space and access to other means/forms of help to improve their psychosocial and health issues. The professional staff provides them with constant support and counselling on how to improve their way of life. Some who are on substitution therapy are able to establish and maintain abstinence and as a result, stop all criminal activity, including prostitution. Some decide to enroll in other harm reduction programs. The fact is that the more complex the situation is, the longer it takes for a woman to start the process of positive change and consequently, develop healthier ways of living. Our working process also includes field work with users who have not yet been in the safe house and those who have already left the program. We also offer individual and group counselling to the women in ZPKZ Ig (prison). Meetings between our professional staff and offenders are based on voluntary cooperation.

One of the aims of the Safe House 'Stigma' is to offer our users constant support from the first point of contact through to potential accommodation and their needs regarding social integration after leaving the program.



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EEG/TMS

NEURONAVIGATION METHODS IN TMS

Ruben Perellón Alfonso, Indre Pileckyte, Jure Bon

Laboratory for Cognitive Neuroscience, Department of Neurology, Ljubljana

Introduction

Transcranial magnetic stimulation (TMS) is a noninvasive brain stimulation technique that uses focused magnetic pulses to induce durable changes in the activity of target brain regions and networks. TMS is widely used as a research tool in neuroscience, as well as a treatment method for a wide variety of neurological and psychiatric conditions, such as chronic pain or depression [1]. As a focal brain stimulation technique, TMS is anatomically specific in its mechanism of action. For this reason, the efficacy of TMS depends critically on the choice of stimulation target and the accuracy of the methods used to locate it [2]. The dorsolateral prefrontal cortex (DLPFC) is a common target in a variety of conditions, including Alzheimer's disease, fibromyalgia, medication resistant depression, PTSD, OCD, anorexia nervosa, and alcohol abuse.

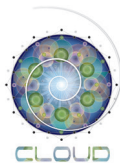
Methods

The earliest and most widely used targeting method in clinical settings is the '5cm rule', in which the motor hotspot for the abductor pollicis brevis is first identified, and then the target is approximated as being 5 cm anterior to this site [3]. Another method, the Beam F3, consists in simply targeting the scalp site where the F3 electrode would be located, according to the 10-20 system [4].

With the advent of MRI guided neuronavigation, it is now possible to achieve a precise target localization, as defined on an individual's MRI image, by using different types of position tracking sensors in real time. This method is not only more accurate, but has served to assess the accuracy of the '5 cm rule' and the Beam F3 methods. The conventional '5 cm rule' was found to miss the DLPFC in 1 out of 3 cases [5], moreover, the DLPFC was found to be situated at 7-8.3 cm from the motor hotspot, on average. Interestingly, the Beam F3 method has been found to be comparable to neuronavigation, with an average difference not higher than about 1 cm [5].

Discussion

The results suggest that Beam F3 might be a cheaper and more practical way to target DLPFC, however, MRI and, more recently, fMRI based neuronavigation is a very powerful tool when targeting specific and novel entry points to brain networks of interest, and thus enables the development of novel stimulation treatments and TMS research endeavors.



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COMPREHENSIVE APPROACH TO ILLICIT DRUG ABUSE

A THERAPEUTIC COMMUNITY FOR THE DUAL DIAGNOSIS–MODEL OF INTEGRATIVE APPROACHES IN THE TREATMENT OF ADDICTION

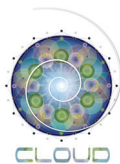
Drago Sukič

Institute of Pelikan-Caritas, Ljubljana, Slovenia

Recognition of the problem posed by the use and abuse of psychoactive substances (PAS) by people with mental and behavioral conditions in our country has only occurred recently. However, this phenomenon has gained increasing attention over the past two decades. The connection between co-morbidity and disorders that are linked to the consumption of PAS and other mental disorders has acquired the term “dual diagnosis,” or co-morbidity. In recent years, however, this term has been used more and more in order to avoid labelling patients with the term “patients with complex needs.”

Addressing these patients usually requires the involvement of several experts from different fields, which also means that users are often connected to different institutions and programs. Transfers from one institution to another for users and their relatives represents a further frustration (frequently presenting anxiety). The problem that occurs in the treatment of patients with dual diagnosis is reflected by a concern that they are often treated selectively or that the condition is not recognized in time.

The program presenting a therapeutic community for addicts with associated mental health problems takes place within the framework of the Institute Pelikan-Caritas. In this respect, this is a major acquisition for patients with complex problems (dual diagnosis). Since the phenomenon of dual diagnosis is often due to self-medicating or the selective treatment of aspects that are present at the onset of dependence (biological, psychological and social), concomitant treatment is vital. In this article, we want to demonstrate how when using an integrative form, the above-mentioned program includes psychiatric services, psychosocial treatment and family therapy.



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EEG/TMS

THE ROLE OF ELECTROENCEPHALOGRAPHY AS A NEUROSCIENTIFIC METHOD OF STUDYING DRUG ADDICTION

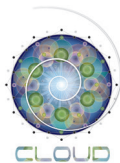
Jurij Dreco

Laboratory for Cognitive Neuroscience, Department of Neurology,
University Medical Centre Ljubljana, Slovenia

While EEG is the oldest neuroscientific method for studying in-vivo brain function its role in modern neuroscience has never waned. It is exquisitely sensitive to synchronized synaptic electrical activity in the cortical layer of the brain with sub-millisecond temporal resolution. This enables it to tap into the process underlying much of brain function. With the advent of high electrode density recordings using 128 or even 256 EEG channels and increased computer processing power modern EEG applications go far beyond the classical clinical visual inspection of EEG wave-forms. Quantitative EEG (QEEG) offers novel insights into various brain processes using methods such as: event related potentials, oscillatory (spectral) analysis, neural-network based feature extraction, source imaging etc. These techniques enable us to observe almost any large-scale brain processes from motor cortex activity to working memory and decision making. This flexibility and wide-scale applicability of modern QEEG permits non-invasive and cost-effective study of physiological alterations in many brain diseases and disorders, including drug addiction. Several QEEG techniques will be reviewed and their application to addiction research discussed.

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EXCHANGE OF GOOD PRACTICES

DAILY RESOCIALIZATION CENTRE FOR DRUG USERS

Ljiljana Kordic

Addiction Help NGO VIDA, Rijeka, Croatia

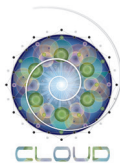
Contemporary trends in the population of drug users in Croatia show movement toward greater vulnerability and social exclusion than earlier. Drug dependent persons are often unable to successfully adjust to their social environment, therefore return to an addictive lifestyle. Reasons are mainly the negative public opinion about the addiction problem and insufficient family and wider social support.

The Croatian Project of Social Reintegration of Drug Dependent Persons (2007), and the Protocol of Cooperation and Operation of the relevant national authorities, institutions and civil society organizations for the implementation of the Project of Social Reintegration includes two main measures: professional retraining and additional training and stimulating employment.

Addiction Help NGO Vida has joined this effort developing innovative community-based programs for addicts and their families. The objective of this paper is to present the Vida's Resocialization Centre. The Centre advances the care of addicted persons introducing integrative daily services for their reintegration into the community. Integrative approach consists of various services in collaboration with health, social, economic and labor institutions in order to meet unsatisfied needs of the Centre users. There are three programs including the preparation for the re-socialization of drug addicts, assistance for education and employment, and raising self-esteem and improving self-image.

The Centre team ascertains needs, competencies and capabilities of users with their active participation. The Centre core team consists of psychologists, jurist and recovered addicts – mentors in the process of positive change. The Centre managed to cover 38 users during 2015.

We can conclude that addicts' re-socialization sustainability depend on the quality of inter-sectoral and cross-sectoral cooperation through joint work with others, participation of skilled workers from the public, and participation in initiatives for networking of NGOs involved in fighting addiction.



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PROFESSIONAL TRAININGS IN THE FIELD OF MONITORING, PREVENTION,
TREATMENT AND RESOCIALIZATION OF ILLICIT DRUG ABUSERS

PHD IN PUBLIC HEALTH – WHAT DO WE EXPECT?

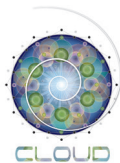
Martina Drevenšek, DDM, PhD

**Dept. of Orthodontics, Faculty of Medicine, University of Ljubljana
Dept. of Orthodontics, Dental Clinic, University Medical Center Ljubljana**

The most important aim of regulation authorities should be a healthy population. It means in the state of physical, mental and social wellbeing and only with the absence of disease. Beside the all economic effects there is a priceless impact on the individual and on the whole society.

To be able to reach such an important aim we have to be able to conduct an appropriate politics and competent education. PhD studies in public health is one of the important stages in preparing suitable professionals who can take care of the public health. To conduct different measures to prevent disease, promote health and to prolong life among the population is also very important to be able to understand all the mechanisms involved in diseases which have impact on the health of population. Ethics in public health is a basis to prepare a responsible professional. Epidemiology, biostatistics, identifying the needs of society, production public health strategies for different populations, their evaluations, management and public health economy are the core areas in public health studies. Beside the contemporary public health studies there is also a need to be able to gain broad interdisciplinary knowledge of biomedical research. This is one of the basis to address the most important public health challenges. Understanding of molecular biology, cell biology, genetics, biochemistry and other areas can influence planning the strategies and enable better treatments of diseases affecting population.

Oral diseases are one of the major public health problems in the world. Poor oral health has a significant impact on the overall health of the population. Some diseases of the oral cavity are associated with chronic diseases (egg. diabetes). Pain, disturbances in chewing, eating, communicating, which can result from poor oral health has a significant impact on quality of life. Because of all these facts oral health should be an important part of public health strategies and so also included in the education, not only in graduate programs but also in PhD studies.



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EXCHANGE OF GOOD PRACTICES

MODEL OF EFFECTIVE SOCIAL REINTEGRATION OF ILLICIT DRUGS USERS

Samo Novakovič
Association SVIT Koper, Slovenia

Acronyms

IDU - illicit drugs user

SR - social reintegration

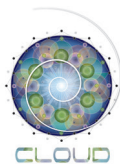
Summary

Since the autumn of 2015, Association Svit Koper has been part of the project IPA-Cloud. As one of the partners, we have a role in developing SR models for IDUs. Although the possible activities that were anticipated in the project were apparently rectilinear, we encountered some doubts regarding a standardized approach in SR activities.

The presentation tries to point out some conceptual contradictions of SR understanding and discusses the consequences of the current legal status of IDUs, as well as the possibility of creating a more efficient environment where IDUs form an integral part of society. There will also be further insight into the current situation of drug users and analyses of the reasons behind their social exclusion. Finally, through inductive reasoning, we will present a viable alternative to present trends, which see different countries within the EU failing to adhere to a common view regarding effective approaches in the field of SR (Social reintegration and employment, EMCDDA, 2012) .

The different models of SR have been considered from a variety of standpoints - from services for socially excluded individuals, to the environment that excludes them. The main objective is to overcome the thought patterns associated with situations where exclusion is the norm.

At the heart of the social reintegration of IDUs is the idea of acceptance in diversity: that means creating an environment based on equal rights and obligations for citizens of various lifestyles, who can maintain a balance of functionality. Therefore, it is imperative not to place obstacles in the way that will prevent the realization of these efforts and rather, regulate relations between individuals with a diverse range of lifestyles. In an idealistic way, it is possible to hypothesize that programs of reintegration in this way could eventually become obsolete.



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PROFESSIONAL TRAININGS IN THE FIELD OF MONITORING, PREVENTION,
TREATMENT AND RESOCIALIZATION OF ILLICIT DRUG ABUSERS

STRENGTHENING INSTITUTIONS AND ORGANIZATIONS AS WELL AS COOPERATION IN THE FIELD OF PREVENTION, TREATMENT AND SOCIAL REINTEGRATION OF DRUG ADDICTS

Vanja Vasiljev Marchesi^{1,2}, Darko Roviš^{1,2,3}, Gordana Šimunković¹, Maja Miloš¹, Denis Juraga¹, Lovorka Bilajac^{1,3}, Tomislav Rukavina^{1,2,3}

1 Faculty of Medicine, University of Rijeka, Department of Social Medicine and Epidemiology, Croatia

2 Faculty of health Studies, University of Rijeka, Department of Public Health, Croatia

3 Teaching Institute of Public Health of Primorsko-goranska County, Rijeka, Croatia

The main goal of this work is to present the work package that is implemented by the Faculty of Medicine, University of Rijeka as part of the ongoing IPA project “Comprehensive approach to the treatment and social and economic reintegration of illicit drug users - CLOUD”. The project focuses to build the multidisciplinary and multisector cross border (Croatia, Slovenia) capacity for challenges of modern needs of drug addicts. Faculty of Medicine as one of six partners is involved in preparation of the curriculum of scientific doctoral study in the field of public health and development of two lifelong learning programs for the professionals working in the field of health promotion and drug prevention. This presentation will represent ground reasons to initiate and prepare the study program in the field of public health and core competences of the students finishing PhD program. Presentation will overview all of necessary steps in the process of development and implementation of educational programs.

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Operacijo delno financira Evropska unija
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Ulaganje u vašu budućnost
Operaciju dijelomično financira Evropska unija
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