

Alcohol, Drugs and Medicines Related Injuries

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546 COUGH MIXTURES ABUSE AMONGST ADOLESCENT STUDENTS IN DONGGUAN, CHINA

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Background Cough mixtures can help or harm. Very few literatures involved cough mixtures abuse (abbreviation to CMA) while we often have clinical cases basically of adolescent abusers. This research aims to the prevalence of CMA among adolescent students in Dongguan, China.

Methods Analyses were based on a cross-sectional survey of students (N 8 529) from all 22 middle and high schools in Dongguan, China. Logistic regression models were computed to examine prospective risk factors of CMA behaviour. Cough mixtures were defined in those prescription medicine drinks containing codeine component for the upper respiratory tract treatment purpose originally.

Results The very prevalence of CMA varied from 5.36% to 12.54% in all 8 age groups (12 to 19 years old) during the past one year before investigation. Male students were more vulnerable with a rate of 8.17% in comparison to female 5.93% (3.263, p 0.017). Prospective risk factors of CMA included single parent family (OR 3.047, 95% CI: 2.184 to 3.946), depression or anxiety (OR 2.851, 95% CI: 1.014 to 3.415), high study stress (OR 1.954, 95% CI: 1.245 to 3.214), and convenience to obtain (OR 1.856, 95% CI: 1.012 to 2.547). Drug dependence was the main adverse consequence of CMA from acute symptoms like palpitation (7.48%), illusion (5.26%), and coma (2.58%) to chronic changes such as weak appetite and mal-digestion (85.47%), difficulty to sleep (80.12%), and decline of memories (78.24%).

Conclusions CMA endangering adolescent students calls for multidisciplinary enforcement and education intervention in Dongguan, China.

547 ACCIDENTS AMONG SUBSTANCE USE DEPENDENT PATIENT SEEKING TREATMENT: COCAINE VERSUS OTHER SUBSTANCES

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Background Cocaine use has been associated with traffic road accident involvement. Early studies showed frequent accident involvement of patients in treatment for Substance Use Disorders. The aim of the study is to analyse the history of accidents and risk behaviours in cocaine dependent patients (CD) and other substance type dependent patients (OD).

Methods 182 patients in treatment for their Substance Use Disorders from January 2014 to September 2015 were included in the

study. History of accident involvement of any kind and risk behaviours was recorded, as well as follow up to 1 year. SPSS (23) was used for statistical analysis.

Results 45.2% of patients were CD and 54.8% were OD (35.6% alcohol, 8.3%, cannabis, 5.8% opioid and 5.1% other drugs). 30.3% were women and 69.7% were men, aged 43.7 (mean) years (SD = 13). 65.6% were currently driving. Lifetime involvement in accidents was frequently reported by Substance Use Disorder patients (34.6%), more likely among CD (40.4%) than among OD (29.0%). Furthermore, CD patients referred further potentially dangerous activities, such as driving under the influence of drugs (65.9% vs. 33.3%) and driving with abstinence symptomatology (41.7% vs 12%), more frequently than OD patients.

Conclusions Substance Use Disorder patients frequently drive and were frequently involved in accidents. Accident involvement and risk behaviours were more likely among cocaine dependent patients than those dependent on other drugs.

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548 ROADSIDE TESTING OF OPIATES IN ORAL FLUID OF SPANISH DRIVERS

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Background Opiates could impair psychomotor performance, and driving under the influence of opiates is associated with increased accident risk. The aim of the study was: i) to determine the prevalence of opiates in Spanish drivers; and ii) to explore opiate drug usage (heroin, morphine, codeine and methadone), alone or in combination with other drugs.

Methods The 2008/9 DRUID database regarding Spain was used, including information on 3302 drivers. All drivers included in the study provided a saliva sample and mass-chromatographic analysis was provided in all cases. To determine prevalence, the sample was weighted according to traffic intensity and, for positive cases, DRUID project cutoffs were applied. To explore opiate use the sample was used unweighted and the detection of each substance was considered a positive result.

Results The prevalence of opiates in Spanish drivers was 0.5% (95% CI: = [0.3–0.8]). Opiates, either alone or together with other drugs, were detected in 64 drivers. The average age (\pm SD) was 35.53 \pm 11.72 years and the majority of the cases were men (79.7%). No case of morphine as medicinal use was observed. The specific metabolite of heroin 6-acetyl morphine (6-AM) was detected in the saliva of 34 drivers: in 8 cases alone, in 7 cases with methadone, multiple substance use being the rule. Codeine was detected in 26 drivers (in 10 drivers alone) and methadone in 24 drivers (in 10 drivers alone). Polydrug use was common in opiate user drivers (56.25%). The most frequent non opiate drugs were cocaine (n = 32), THC (n = 14) and benzodiazepines (n = 7).

Conclusions Driving with the presence of opiates is relatively infrequent. Polydrug use is common among Spanish drivers who are opiate users. Only 40% of methadone positive cases (likely on methadone maintenance programs) were using this substance alone.

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549 **TYPOLOGIES OF THE GENDER-BASED VIOLENCE, HIV, AND ALCOHOL USE SYNDOMIC AMONG YOUTH IN KAMPALA**

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Background The HIV epidemic in Uganda appears to be exacerbated by co-occurring substance use and gender-based violence (GBV), a syndemic commonly referred to as the SAVA syndemic. The high prevalence of the three complex epidemics warrant investigation of the extent to which they co-occur at the individual level and the psychosocial correlates that increase risk.

Methods Analyses are based on cross-sectional data collected in 2014. Participants comprised a convenience sample (N = 1,134) of urban service-seeking youth living on the streets or in the slums, 12–18 years of age who were participating in a Uganda Youth Development Link drop-in centre. Multinomial logistic regression was used to determine the odds of being classified in 7 different categories of GBV, HIV, and alcohol use. Typologies were analysed for associations with risk and protective factors. GBV was operationalized as both perpetration and victimisation.

Results Risk and protective factors in the analyses (i.e., age, commercial sex work, observing parental abuse of each other, depression/suicidality, and parental living status) were all statistically significantly associated with self-reported SAVA. The overall effects of depression and suicidality were mostly associated with classification in categories distinguished by GBV and alcohol use. Engaging in commercial sex work was associated with alcohol use. Observing parental abuse was associated with various combinations of the syndemic, mostly categorised by GBV and alcohol use, as well as experiencing all three, alcohol, HIV, and GBV (AOR: 7.32; 95% CI: 3.09, 17.37). Additionally, the model estimated with all risk factors and no protective factors yielded the highest probabilities of belonging to categories characterised by alcohol use.

Conclusions Given the high prevalence of GBV, HIV, and alcohol use among youth in this population, prevention and interventions to reduce these outcomes are needed.

550 **DRINKING AND DRIVING: CONSUMPTION OF ALCOHOL MIXED ENERGY DRINKS COMPARED TO ALCOHOL IN A SIMULATOR**

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Background Consumption of alcoholic mixed with energy drinks (AmED) is a known trend. However, the literature does not provide enough information whether drinking AmED differs relative to other alcoholic beverages. The aim of the study was to compare driving performance under AmED, to alcohol in a driving simulator.

Methods Twenty-one participants (21–28 years, driving experience average 8 years) who reported that they drink alcohol up to

eight times a month, including AmED, drove the simulator in four separate sessions; after drinking placebo; energy drink; alcoholic beverage, and AmED. They drove a scenario combined of four road types; straight, foggy-winding, winding, and straight following a lead vehicle, each 10 Km long. For each road type there were various hazardous events and secondary tasks.

Results Traditional analysis of blocks per road type yielded no significant differences among groups (placebo/energy/alcohol/AmED). Therefore a more refined analysis was conducted. For each drive, velocity was sampled every 3 metres. Based on this sampling the average speed among individuals of the same group was calculated for each road increment, resulting in four lines of average speed per road type representing the four groups. Behaviour of each group was then compared within road-type and between roads. We identified consistent patterns in speed behaviour among groups when looking at events within each road-type. However, there was no consistent single pattern across all.

Conclusions Individual, specific patterns that characterise driving after drinking placebo, energy, alcohol, or AmED were identified for each road type. Yet, a common pattern of behaviour was not found. Possibly, it is beneficial to examine behaviour by smaller segments of road-type related events rather than aim to identify global differences due to drinking and driving.

551 **REHABILITATION OF ALCOHOL AND DRUG ADDICTS IN MURANG'A, KENYA**

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Background Rising levels of alcohol and drug abuse as reported by NACADA, Kenya, especially in the central part of Kenya necessitated a crisis intervention which was ordered by the President of Kenya in June 2015. Breakdown of family units, social and moral decadence and threat of loss of a whole generation to the dangers of addiction was evident. A one of a kind, ninety Day mass Rehabilitation program was started in Murang'a as a county initiative. The program attracted approximately 1,500 addicts.

Methods Tents were pitched in the stadium and make shift facilities provided to facilitate the process. A team of qualified counsellors were invited to offer voluntary services. Medical staff were deployed from the county hospitals under the supervision of a psychiatrist. The Clients would go through a process of intake and to determine their level of addiction, different tools were used and if there was need for hospitalisation this would be facilitated at the local hospital. A program of rehabilitation that involved the twelve steps and life skills psycho education was put together.

Results The Rehabilitation centre currently holds eight hundred recovering addicts. The process of rehabilitation has reviewed well educated people who lost hope and immersed themselves into addiction and are now being structured to reenter into job markets and business as opportunities arise. Major issues of life threatening dangers have been addressed. A larger number of addicts from across the county, which has a documented 30,000 addicts, await to be admitted for rehabilitation.

Conclusions The battle against alcohol and drug addiction in Murang'a and in Kenya is far from complete but massive resources are required. Rehabilitation will help heal the country, socially, economically and emotionally.