

552 **MINDFULNESS STRESS REDUCTION & SELF HARM INTERVENTION FOR RECOVERY COACHES & SUBSTANCE USING CLIENTS**

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**Background** Nearly half of all children in foster care in the state of Illinois are removed from parents with serious substance abuse problems (Ryan and Huang, 2012). Treatment Alternatives for Safe Communities (TASC), provides health and human services to underserved populations who need treatment for alcohol, drug, and mental health problems and advocates through use of Recovery Coaches for this population in courts, jails, prisons, and child welfare systems.

**Methods** We have developed an eight week training program on Mindfulness Based Stress Reduction practices, adapted for Recovery Coaches, who work with substance involved parents seeking to regain custody of their children. The training program will develop stress reduction techniques designed to reduce compassion fatigue, burnout, and also techniques designed to enhance interpersonal awareness among Recovery Coaches to enhance the working alliance and improve client outcomes.

**Results** Presently, the Recovery Coach program have serviced over 4,000 substance abusing parents with trying to regain custody with over 5,000 children. The study includes surveys with 21 Recovery Coaches (11 cases and 10 controls); and 300 clients (10 clients per coach). Analyses have determined the change in baseline and three month post intervention measures of mindfulness, compassion fatigue, burnout and secondary trauma among Recovery Coaches trained in MBSR compared to Recovery Coaches who did not receive the intervention. Thirty-eight percent of the clients completed treatment during this reporting period, 26% are in treatment, 22% are currently not in treatment, and 14% failed treatment or were non-compliant.

**Conclusions** This study contributes to the development of the Recovery Coach Model by examining intricacies of the client-worker engagement process that facilitates positive coach/client outcomes with the goal of preventing self harm activities and domestic violence among families dealing with substance use.

553 **THE THEORY OF PLANNED BEHAVIOUR FOR DRINKING AND DRIVING: AN EMPIRICAL VALIDATION USING DATA COLLECTED IN TWO CHINESE CITIES FROM 2010 TO 2014**

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**Background** Road traffic crashes are mostly attributable to violations of traffic regulations. Particularly, despite its proven risk, the violation of drinking and driving regulation is still pandemic in many countries and leads to a large number of traffic injuries and fatalities. A better understanding of the factors affecting drinking and driving behaviour is crucial to developing effective interventions to reduce the risk. The most commonly used theoretical model to predict this behaviour is the theory of planned behaviour (TPB). We aimed to assess the ability of this theory in explaining the violation of drinking and driving regulation.

**Methods** As part of an international road safety consortium, a range of interventions, including social media campaigns, advocacy for legislative change, and law enforcement training, were implemented in two Chinese cities (Suzhou and Dalian) from 2010 to 2014. To monitor and evaluate the project, surveys on motor vehicle's knowledge, attitude and practice (KAP) were regularly conducted from representative samples in both cities. The outcome is whether the respondent has driven a motor vehicle after drinking alcohol in the past 30 days. About 30 indicators measuring drivers' KAP and demographic information were collected.

**Results** Totally nine rounds of surveys were completed in each city, covering 11,362 drivers. Overall, about 1.9% of the respondents have driven a motor vehicle after drinking alcohol in the past 30 days. Multivariate logistic regressions show that female drivers are 2.4% (95% CI: -3.4%, -1.5%) less likely to drive after drinking than male drivers. The risk is 1.9% (95% CI: -3.1%, -0.8%) higher among drivers who believe the penalty if caught drinking and driving is heavy than those who believe it is light. The attitude toward drinking and driving and perceived chance of being caught if violated have the largest direct effects. Drivers with correct attitude towards drinking and driving are 27% (95% CI: -28.7%, -25.3%) less likely to do that than drivers who underestimated the risk of drinking and driving. Compared with drivers who believe the chance of being caught is less than 30%, other drivers have a statistically significantly reduced prevalence of drinking and driving.

**Conclusions** The remarkable consistency between the theory and data indicates that the TPB theory is strongly supported. Social marketing campaign to educate the drivers about the risk of drinking and driving, combined with strengthening enforcement to increase the likelihood of being caught if drinking and driving, may be an effective strategy to prevent the violations.

554 **ALCOHOL USE AND CRIMINAL VIOLATIONS IN VIET NAM: POLICY IMPLICATIONS FOR ALCOHOL CONTROL**

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**Background** Alcohol use is highly prevalent in Viet Nam, especially among males. Results from a national survey in 2010 showed 70% of Vietnamese males are drinkers, among them 24.1% drinks at harmful level.

**Methods** This study was conducted in partnership with the People's Police Academy (PPA) by collecting data from 11 provinces and cities in Viet Nam on all criminal violations 2010 to 2014. A total of 60,657 criminal cases were collected for analysis on association with alcohol use.

**Results** Out of 60,657 criminal cases, 2,621 cases were identified as associated with alcohol use, accounting for 4.3%. About 71% of the cases are in the age group of 16 to 30, 24% and 5% are in the groups of 30-45 and above 45 respectively.

The most common time of intoxicated cases and public disorder and crime is in the evening between the time frame of 18.00-24.00 hours, accounting for 61% of total cases. In addition, data showed that 1 in 5 criminal cases happened after 24.00 hours.

**Policy implications** It's essential to develop and implement a strong national alcohol policy to control the availability and consumption of alcohol in the country to reduce the harmful use of alcohol and criminal violations. It's also crucial to focus alcohol

policy on young adults to educate them on harms of alcohol and minimise consequences of harmful use of alcohol for a healthy population in the long run.

### 555 THE IMPACT OF THE DIGITALIZATION TO THE MEDICAL SUPPLY CHAIN

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**Background** Digitalization equalises information asymmetries, which increases economic efficiency and transforms many lines of business. We argue that digitalization can do the same within the medical supply chain.

**Methods** We utilise conceptual theory building. This is supported by a literature review and an interview conducted with a key actor within the Finnish pharmaceutical arena.

**Results** 1) Electronic prescription has the potential to increase the information between physician and patient. Some positive results have been obtained relating to medication safety. 2) The generic substitution system has been implemented to decrease the information asymmetry relating to medicine prices. This has had an effect on the annual medicine expenditures in Finland. 3) These developments have however no influence to the lack of patient adherence. It is a form of information asymmetry with a grave impact to the healthcare system. Adherence could be alleviated with digital solutions. These include solutions supporting patient engagement as well as controlled delivery of medicines at home. 4) Outcomes-based medicine tries to decrease the uncertainty in the field of medical care. This can be alleviated with data gathered from the patient with innovations such as wearables. This can have impact also to the moral hazard threat in the health insurance field. 5) Overall, there is more information available on medical treatments, which should be utilised to increase the patient engagement. 6) Medicine spoilage and shortage are severe information asymmetry related problems. Digital systems could support the prediction of the demand and real time tracking of the consumption of medicines.

**Conclusions** Digitalization could improve the medical supply chain by decreasing the information asymmetries between different actors. Whereas there is some promising development, considerable potential remains still unused.

### 556 PREVALENCE AND FACTORS ASSOCIATED WITH WORK-RELATED INJURY AMONG 40/60 CONDOMINIUM CONSTRUCTION WORKERS IN ADDIS ABABA, ETHIOPIA

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**Background** Injuries pose a major public health and development problems in construction work places. However there is limited studies and given less attention by the government and companies to protect the construction workers from injury. This study aims to estimate prevalence and factors associated with injury among 40/60 condominium construction workers in Addis Ababa, Ethiopia.

**Methods** A cross-sectional quantitative data method was conducted to estimate the prevalence and factors associated with injury among 40/60 condominium construction workers. For the survey, 504 workers from city government of Addis Ababa 40/60

condominium sites were selected using multistage sampling technique. Data were collected using pre-tested and structured questionnaire. The data were entered by using EPI Info version 7 and analysed using SPSS version 20, and results were presented in tables and figures. Odds ratio with 95% confidence interval was used as a measure of effect.

**Result** The prevalence is 38.3%, of the respondents have got injuries. Marital status (married of [AOR: = 0.054 (0.005–0.616)], single AOR: = 0.058 (0.005–0.661), Divorcee [AOR: = 0.072 (0.005–0.0989)] and coupled [AOR: = 0.031 (0.002–0.403)], service [AOR: = 0.404 (0.231–0.711)], chewing chat [AOR: = 2.570 (1.589–4.158)] and not using personal protective device [AOR: = 0.355 (0.192–0.654)] were significantly associated with injury among 40/60 condominium construction workers.

**Conclusion** In this study the prevalence of injury among 40/60 construction workers was 38.3% CI 95% (33.9, 42.5) with significant associated factors of marital status, chat chewing, service year and not using personal protective device. Therefore counter measures such as creating awareness of risk factors, providing and using personal protective devices could be effective to decrease prevalence of injuries among construction workers.

### 557 PRESCRIBED MEDICATION AND ADVERSE DRUG EVENTS BY UNINTENTIONAL POISONING AMONG OLDER ADULTS: A SWEDISH POPULATION-BASED MATCHED CASE-CONTROL STUDY

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**Background** Specific types of medications, but also drug-drug interactions are known to lead to adverse drug events (ADE) among older people. However, only small numbers of controlled epidemiological studies investigated ADE with particular focus on the prescription of inappropriate medications (inappropriate drug use – IDU) or the number of medications prescribed. This based study investigates the association between the number of prescribed medications and ADEs, while considering different indicators of inappropriate drug use (IDU).

**Methods** In this study we utilised a matched case-control design among Swedish residents 50 years and older. The National Inpatient Register and the Causes of Death Register were used to extract cases with and ADE by unintentional poisoning that resulted in a hospitalisation or death within January 2006 to December 2009 (n = 5,336). Each case was matched with four controls, based on age, sex and residential area. The controls were randomly selected among the individuals without an ADE (n = 21,344). Any medication prescribed during the four-month period prior to the ADE were selected by using the Swedish Prescribed Drug Register and were then categorised based on the total number of medications prescribed and on correspondence with an IDU indicator (known single-drug and drug combinations). Effects were estimated with odds ratios (OR) and 95% confidence intervals (CI:) by applying conditional logistic regression.

**Results** Each of the indicators for IDU was associated with a high risk of ADE among older people. We found a lower, yet still positive and graded association between the total number of medications prescribed and the risk for ADE, starting by two medications to ten or more. The risk of ADE remained increased when the total number of medications prescribed was at three to