SSA SOCIETY FOR THE STUDY OF ADDICTION

PhD Symposium 2022

Wednesday 2nd November
11:00 – 17:00
Mercure Hotel, Bristol

Abstracts & Programme

#SSAPhD2022

Programme

(Please click the presentation title to go straight to the abstract)

11:00 - 11:15	Welcome and introductions (tea / coffee provided)
	Session 1 **Drug and service use and recovery** Chair: Nathan Critchlow
11:15 – 11:30	***Roz Gittins, Aston University*** Exploring Over The Counter And Prescription Only Medication Misuse In Specialist Treatment Services During COVID-19
11:30 – 11:45	***Kirsty Stuart Jepsen, Cardiff University*** Loss Of Identity Within Recovery
11:45 – 12:00	***Benjamin Scher, University of Oxford*** Pilot Service Evaluation Of A Drug Consumption Room In The UK: Understanding Future Service Users' Perspectives
12:00 – 12:15	***Eleni Domzaridou, University of Manchester*** Non-Fatal Overdose Risk During And After Opioid Agonist Treatment: A Primary Care Cohort Study With Linked Hospitalisation And Mortality Records
	Session 2 **Changing alcohol use or gambling behaviours through interventions and policies** Chair: Saba Ishrat
12:15 – 12:30	***Heather Mitchell, University of Stirling*** How Did The Media Communication Of The UK Drinking Guidelines Contribute To Public Debate On Alcohol Policy In The UK?
12:30 – 12:45	***Claire Davey, Canterbury Christ Church University*** Patterns Of No-Lo Consumption At The UK's First 'Alcohol-Free Off-Licence'
12:45 – 13:00	***Lily Davidson, University of Queensland*** Twelve-Month Outcomes Of A Two-Stage Social Network Intervention Aimed At Reducing Heavy Drinking Among Residential College Students
13:00 – 13:15	***Catherine Hitch, Queen's University Belfast*** Systematic Review: Acceptance And Commitment Therapy And Gambling And PTSD
LUNCH - Provided 13:15 to 14:00	
	Expert workshop and Q&A **Impact, inclusivity, and involvement in addictions research** Chair: Zoe Swithenbank
14:00 – 15:00	**Speakers:**

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	Dr. Magalena Harris, London School of Hygiene and Tropical Medicine (LSHTM) **Dr. Hannah Carver,** University of Stirling **Dr. Parvati Perman-Howe,** King's College London **Ayan Ahmed,** University of Surrey
	Session 3 **Cognitive impacts of cannabis or alcohol use** Chair: Nathan Critchlow
15:00 – 15:15	***Saba Ishrat, University of Oxford*** The Impact Of Cannabis Exposure On Later Life Brain Structure In UK Biobank
15:15 – 15:30	***Kat Petrilli, University of Bath*** High Potency Cannabis Use, Mental Health Symptoms And Cannabis Dependence: Triangulating The Evidence
15:30 – 15:45	***Anna Powell, Liverpool John Moores University*** Young, Drunk, And Fast: Paradoxical Rapid Reaction Time In Hazardous Drinkers
15:45 – 16:00	***Mica Komarnyckyj, University of Huddersfield*** Impaired Gain And Loss Anticipation In Alcohol Dependency: An EEG Monetary Incentive Delay Study
	Session 4 **Tobacco and nicotine use and exposure** Chair: Katie East
16:00 – 16:15	***Tianze Sun, University of Queensland*** Global Prevalence Of Heated Tobacco Product Use, 2015 - 2022: A Systematic Review And Meta-Analysis
16:15 – 16:30	***Giang Vu, University of Queensland*** Predicting The Long-Term Effects Of Electronic Cigarette Use On Population Health: A Systematic Review Of Modelling Studies
16:30 – 16:45	***Eve Taylor, King's College London*** Feasibility And Acceptability Of Collecting Biomarker Data From Inpatient Psychiatric Service Users Who Vape And Or Smoke Or Do Neither
16:45	***Harry Tattan-Birch, University College London*** Children's Exposure To Second-Hand Smoke 10 Years On From Smoke-Free Legislation In England: Cotinine Data From The Health Survey For England 1998-2018
17:00	Closing remarks
18:00	**Dinner – Vincenzo's Pizza House (click here for details and address)**

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Session 1

Drug and service use and recovery

Chaired by: Nathan Critchlow, SSA Academic Fellow ▪ University of Stirling

Exploring Over The Counter And Prescription Only Medication Misuse In Specialist Treatment Services During COVID-19

Roz Gittins ▪ Aston University

Abstract

An improved understanding of Over the Counter (OTC) and Prescription Only Medication (POM) misuse by people who access substance misuse services (SMS) would enable better treatment interventions. There is growing awareness and concerns about this issue, especially during COVID-19. The aim was to explore the misuse of OTC/POM in SMS, including the types of medication involved, associated experiences, characteristics, the impact of use, and changes during COVID-19. Confidential semi-structured interviews were undertaken with English-speaking adults (≥18 years) who provided informed consent: SMS staff, current service users and their friends/families, implemented with a modified grounded theory approach. Demographic data for service users was obtained from SMS management systems and qualitative thematic analysis used NVivo. Purposive sampling undertaken in community SMS across England, provided by one of the UK's largest third sector organisations. Service user (n=24) interviews suggested being at different stages of recovery. Friends/family (n=9) outlined feeling self-sufficient and not requiring direct support from SMS. Staff interviews (n=20) included three with lived experience. Participant recruitment was challenging due to COVID-19 restrictions, though data saturation was thought to be achieved. OTC/POM misuse is common amongst people accessing SMS: variable patterns of use, harm reduction measures, high doses and polypharmacy were reported. Alcohol, cannabis, crack-cocaine, heroin and tobacco use was prevalent. Benzodiazepines and opioids (especially codeine products) predominated, usually taken orally and obtained from various sources. Misuse resulted in significant impact upon finances and mental/physical health, sometimes causing feelings of self-loathing, challenging behaviours/deception and friends/family enabling/controlling access to supplies/money. Inadequate responses from healthcare professionals and poor withdrawal management perpetuated use. Increased use was associated with boredom/traumatic events during COVID-19. SMS engagement led to improvements: prescribed/psychosocial interventions were valued. A renewed approach to liberalisation, withdrawal management, education and training must be considered. Improvements at a systems-level and changes to commissioning/national pathways may assist this.

Loss Of Identity Within Recovery

Kirsty Stuart Jepsen ▪ University of Sheffield

Abstract

Addiction recovery is often perceived as a positive change to their self-identity, however, current research only touches upon the feelings of apprehension and unfamiliarity which come with this change. Drawing on a mixed-method qualitative study that involved 12 months of participant-observation at a substance use support organisation and additional photo elicitation conversations with members of that community, this research focuses on understanding how identity is navigated during addiction recovery. Preliminary findings will be discussed, alongside photographic images which participants identified as being significant during their addiction and recovery process. A key theme emerging from the analysis is 'loss', which relates to the loss of their addiction-self and social relationships, and how this can create fear over who they may become. This loss needs to be acknowledged and addressed in order to sustain recovery. At the support service, substance use were not the focus of conversation or encompassed in the presentation of recovery, but emphasis was put on the development of the 'sober self'. Therefore, for these participants, recovery did not involve a binary reparation of a stigmatised identity, but an extrication of their self which required re-framing experiences and re-learning who they are in the present. Interestingly, whilst it might be anticipated that those recovering from an addiction may identify stigma as a significant factor, participants in this study did not express this. Rather, reflections on their past selves were not spoken about in a negative light, but instead framed as familiar and at times enjoyable.

Pilot Service Evaluation Of A Drug Consumption Room In The UK: Understanding Future Service Users' Perspectives

Benjamin Scher ▪ University of Oxford

Abstract

Consultation with people who use drugs is an essential part of high-quality drug service design. This study consulted drug users as part of research for the implementation of a Drug Consumption Room (DCR) in an undisclosed city in the UK. We aimed to find out 1) What features potential clients consider important for a DCR?; 2) What general barriers are there for potential clients accessing the DCR?; 3) What might facilitate or encourage use of the DCR? Between March and June 2022, focus groups and one-on-one interviews with people who use drugs were undertaken to understand potential future service users perspectives regarding the implementation of a DCR in their local community. We also conducted photo-ethnographic and traditional ethnographic fieldwork to better understand the contextual characteristics of the local community. Fieldwork is ongoing but early analysis revealed that potential clients would value peer involvement in the day-to-day running of the DCR, an independence from policing in and around the DCR, and a site which was welcoming and not too far to travel to. Building a sense of community was important, and there was an anticipation of less drug related litter where people had a DCR to go to. Barriers identified include an extension of harms experienced by individuals from police being extended to the sanctuary of a DCR, and any otherwise stigmatising practices or potential operation. The findings summarise and provide insights into the experience of street-based drug use in the area where a DCR is planned. These findings will inform the development and implementation of a DCR that can decrease drug-related deaths, support health and wellbeing, and successfully engage potential local service users.

Non-Fatal Overdose Risk During And After Opioid Agonist Treatment: A Primary Care Cohort Study With Linked Hospitalisation And Mortality Records

Eleni Domzaridou ▪ University of Manchester

Abstract

Background: The initiation and cessation of opioid agonist treatment (OAT) have both been associated with elevated risk of fatal overdose. We examined risk of non-fatal overdose during OAT initiation and cessation and specifically between methadone versus buprenorphine recipients.

Methods: We utilised primary care electronic health records from the Clinical Practice Research Datalink to delineate a study cohort of adults aged 18-64 who were prescribed OAT between Jan 1, 1998 and Dec 31, 2017. These records were linked to hospitalisation, mortality records and patient neighbourhood and practice-level Index of Multiple Deprivation quintiles. With inverse probability treatment weights applied and negative binomial regression models we estimated incidence rate ratios for hospital admissions among patients who experienced multiple overdoses.

Findings: A total of 20898 patients were prescribed methadone or buprenorphine over 83856 person-years of follow-up. Compared with periods in treatment, patients not in treatment were 51% more likely to experience a non-fatal overdose that required hospitalisation (weighted rate ratio, wRR 1·51; 95% CI 1·42, 1·60), especially during the four weeks of OAT initiation (5·59; 5·31, 5·89) and following cessation (13·39; 12·78, 14·03). The wRR of overdose during (0·37; 0·34, 0·39) and after treatment (0·36; 0·34, 0·38) favoured buprenorphine compared to methadone.

Interpretation: OAT is associated with decreased non-fatal overdose risk. Buprenorphine may act more protectively than methadone, especially during the first four weeks of treatment.

Session 2: Changing alcohol use or gambling behaviours through interventions and policies

Chaired by: Saba Ishrat, SSA PhD Student ▪ University of Oxford

How Did The Media Communication Of The UK Drinking Guidelines Contribute To Public Debate On Alcohol Policy In The UK?

Heather Mitchell ▪ University of Stirling

Abstract

Introduction: New 'low risk' drinking guidelines were launched in the UK in 2016. Drinking guidelines exist primarily to inform the public of alcohol related risks. However, the impact of guidelines may go beyond this by also influencing public and policymaker opinions on acceptable drinking practices, as well as the political acceptability of other alcohol policies. Such effects likely depend, in part, on how guidelines are framed in public debate.

Methods: Print and online media articles (n=248) and TV/radio broadcasts (n=50) were analysed for key characteristics, including tone, primary subject, and publication/broadcaster. The IDEA (Identifying and Describing Arguments) framework was applied to a sample of the print and online media coverage (n=130) and to all broadcast coverage (n=50). The IDEA framework uses an analytical approach which identifies, categorises and compares frames used to communicate alcohol policies in peer-reviewed literature and public debate.

Results: The analysis indicated that print and online media articles generally adopted a negative tone, while TV/radio broadcasts adopted a mixed tone. Analysis of the print and online media coverage shows that frames supporting and opposing the guidelines focused primarily on the nature of alcohol problems in the UK, as well as the need, fairness, and effectiveness of the guidelines. Opposing frames also focused on stakeholder descriptions, particularly of public health actors. Analysis of the specific frames within the broadcast media is ongoing.

Conclusions: Media coverage around the launch of the new UK drinking guidelines presented several arguments which explicitly or implicitly supported or opposed the guidelines. These arguments were often framed in the context of wider alcohol related harms, or wider political and policy issues.

Patterns Of No-Lo Consumption At The UK's First 'Alcohol-Free Off-Licence'

Claire Davey ▪ Canterbury Christ Church University

Abstract

No- and low-alcohol beverages are currently experiencing high sales growth in the UK, but academic research regarding the production, regulation, marketing and consumption of these drinks remains limited. This presentation discusses research findings from situational, intermittent, ethnographic customer observations and semi-structured staff interviews at Club Soda's temporary 'alcohol-free off-licence' in London – the UK's first shop that sold exclusively no- and low-alcohol drinks. I analyse who came to the off-licence, and how and why they engaged with no- and low-alcohol drinks. Findings suggest no- and low-alcohol drinks supported customers' alcohol-free lifestyles or attempts to drink mindfully. However, whether customers were former drinkers, lifelong abstainers or current drinkers influenced what products they sought from the off-licence and shaped how these products were used in (non-)drinking practices. The role of the off-licence as a safe, stigma-free, sober space where customers could try no- and low-alcohol products, prior to purchase, and find connection with others, is also explored.

Twelve-Month Outcomes Of A Two-Stage Social Network Intervention Aimed At Reducing Heavy Drinking Among Residential College Students

Lily Davidson ▪ University of Queensland

Abstract

Aims: This study aimed to establish feasibility and preliminary efficacy for a two-stage social-network-intervention (SNI) for alcohol-use in residential colleges. Stage 1 was a peer-led harm-minimisation workshop. Stage 2 was a SNI, in which network analysis was used to identify influential students to receive an alcohol intervention.

Methods: In February 2021, four colleges were recruited. Stage 1 was delivered to the first-year network at all colleges (N = 543). Stage 2 was delivered to the largest first-year network only. To identify influential students, we collected network data at 4-weeks, and used a method called 'Strategic Players' (Ott et al., 2018) to identify 60 students to receive QuikFix intervention (Hides et al., 2014). Participants completed follow-ups at 3-, 6-, 12-months.

Results: Feasibility was established by high enrolment (N = 507; 94%) and follow-up rates (85%; 12-months). To establish efficacy, we isolated a gender-balanced sub-sample (two co-educational cohorts) and used a mixed effects repeated measures model to compare outcomes of the Stage 1 intervention (workshop-only) to the Stage 1+2 intervention (workshop plus targeted SNI), on the primary variable (ASSIST alcohol total). There was a significant time by treatment interaction that was maintained at 12-months. The workshop-only cohort showed significantly higher ASSIST alcohol scores than the Workshop + Targeted SNI cohort at all follow-ups, despite both cohorts having equivalent drinking at baseline.

Conclusions: While conclusions are limited by the uncontrolled nature of this study, results provide preliminary evidence for the feasibility and efficacy of the 2-stage SNI for mitigating onset of heavy drinking.

Systematic Review: Acceptance And Commitment Therapy And Gambling And PTSD

Catherine Hitch ▪ Queen's University Belfast

Abstract

Background: PTSD and gambling disorder (GD) are frequently comorbid. Gambling may provide escape-based coping for the emotions experienced by PTSD sufferers. Members of the military may be at particular risk of suffering PTSD and/or GD due to their heightened exposure to lifetime trauma. Acceptance and Commitment Therapy (ACT) has been found to improve both PTSD and GD outcomes, yet research into the effectiveness of ACT for PTSD and/GD in veterans is scarce.

Objective: This review aimed to systematically assess the evidence relating to the use of ACT and acceptance-based therapy for military populations with PTSD and/or GD.

Methods: Six databases were searched. Selection criteria included studies that featured the armed forces/military, delivered ACT/acceptance-based therapy and aimed to improve PTSD and/or GD outcomes. A narrative synthesis approach was adopted for analysis of quantitative and qualitative findings.

Results: From 1,117 results, 39 studies were fully screened and 14 met inclusion criteria. All studies originated from the USA and 9 were associated with United States Department of Veterans Affairs. Therapy use within each study produced an improvement in PTSD and/or GD, yet only one study examined GD and no studies considered comorbid PTSD/GD. The broad range of study designs made it difficult to compare the findings or make generalisations from the collective results. It is unclear which method of ACT delivery is superior (apps, telehealth, face-to-face, groups, one-to-one, manualised, unstructured), or what the true effect size is of ACT for PTSD and/or GD.

Conclusions: These preliminary findings are promising yet more research is needed on delivery format, content of ACT sessions, and whether findings generalise beyond the USA. The cost-effectiveness of remote-based ACT warrants investigation.

Session 3

Cognitive impacts of cannabis or alcohol use

Chaired by: Nathan Critchlow, SSA Fellow ▪ University of Stirling

The Impact Of Cannabis Exposure On Later Life Brain Structure In UK Biobank

Saba Ishrat ▪ University of Oxford

Abstract

Cannabis use has been associated with grey matter (GM) volume and white matter (WM) microstructural abnormalities in adolescence and young adults. However, the potential effects of cannabis on brain structure in later life have not received an in-depth inquiry. We performed the largest ever study on cannabis use and neuroimaging outcomes in UK Biobank. Five thousand adults reporting lifetime cannabis use and 16917 controls underwent structural Magnetic Resonance Imaging (MRI). Multiple linear regression models accounting for covariates were used to examine associations between cannabis use and grey and white matter measures. Cannabis users (mean age: 61.25 years) drank more alcohol, were mostly in employment than controls (mean age: 64.71 years), and had fewer smokers in both groups. After multiple testing correction, participants with cannabis use had significantly lower fractional anisotropy (FA) and higher mean diffusivity (MD) in the genu of corpus callosum (β = -0.3e-2, [95% confidence interval -0.4e-2 to -0.2e-2], $p < 0.001$ and β = 0.3e-5, [0.2e-5 to 0.5e-5] , $p < 0.001$, respectively), and lower whole brain WM volume (β = -1.49e3, [-2.56 to -0.42] , $p = 0.006$). Additionally, cannabis use associated with lower FA in the forceps minor and higher MD in the cingulum and the body of corpus callosum. Sensitivity analyses in the cannabis users showed no significant impact of lifetime cannabis dose among low vs. high frequency of users, or of the age of cannabis cessation. Our findings suggest that cannabis use may preferentially impact later life white matter macro-and microstructure.

High Potency Cannabis Use, Mental Health Symptoms And Cannabis Dependence: Triangulating The Evidence

Kat Petrilli ▪ University of Bath

Abstract

Background: Cannabis potency, defined as the concentration of Δ-9-Tetrahydrocannabinol (THC), has been associated with increased risks of adverse mental health outcomes and problematic cannabis use. However, the evidence so far presents limitations due to self-report measures of exposure. We examined the association between high potency cannabis, compared to low potency cannabis, with cannabis dependence, depression, anxiety, and psychosis-like symptoms using two measures of exposure (a self-report measure of cannabis potency preference, and a laboratory analysed measure of THC concentration in cannabis samples collected from participants) to triangulate the evidence and mitigate the biases of each of these measures. We hypothesised that users of high potency cannabis will have higher levels of (a) anxiety, (b) depression and (c) psychosis-like symptoms (d) cannabis dependence than users of low potency cannabis.

Methods: A cross-sectional study of 410 participants donated a sample of cannabis for analysis of THC concentration and were questioned about their cannabis potency preference. Each of these two exposure measures was investigated for their association with cannabis dependence, depression, anxiety, and psychosis-like symptoms in separate linear/logistic regression models.

Results: Preference of high potency cannabis was associated with a slight increased risk of cannabis dependence after adjusting for confounding, except for cannabis use frequency (OR= 1.16, 95% CI 1.04 - 1.28). No association was found between THC concentration in cannabis and cannabis dependence. There was no association between high potency cannabis preference or THC concentration in cannabis and depression, anxiety, or psychosis-like symptoms.

Conclusions: Users of cannabis that preferred high potency types might be at increased risks of problematic cannabis use. However, this should be considered with caution as we were not able to triangulate these results with an objective exposure measure of cannabis potency. We did not find evidence of an association between high potency cannabis use and depression, anxiety or psychosis-like symptoms.

Young, Drunk, And Fast: Paradoxical Rapid Reaction Time In Hazardous Drinkers

Anna Powell ▪ Liverpool John Moores University

Abstract

Aims: Hazardous alcohol use associates with reduced cognitive function but is less consistent with regards to processing speed. Using vibrotactile perception to assess function may have benefits over other sensory stimuli, due to lower variability in reaction time (RT) and shorter latency. This study assessed vibrotactile simple and choice RT across hazardous (Alcohol Use Disorders Identification Test score ⩾8) and non-hazardous drinkers.

Design: Cross-sectional. Participants: 86 individuals (29m, 57f, aged 18-80; 33.47 ± 17.65 years).

Measurements: vibrotactile tasks and alcohol, mood, and subjective function (Executive Function Index; EFI) questionnaires. MANCOVAs were performed on RT and EFI scores to investigate function, and a bivariate correlation assessed relationships between objective/subjective function.

Findings: Hazardous drinkers were faster during choice RT. This was investigated further using exploratory analysis by analysing 'older' (30+ years) and 'younger' (18-29 years) hazardous and non-hazardous drinkers as four groups. Young hazardous drinkers performed better than both older groups for simple RT, while older non-hazardous drinkers were worse than both younger groups at choice RT. Subjectively, EFI subscales Strategic Planning and Impulse Control were reported as better in non-hazardous drinkers. Finally, Organisation and Impulse Control both positively correlated with choice and simple RT, indicating that as subjective function improved, RT increased (performance worsened).

Conclusions: These results are considered in the context of the premature aging hypothesis, impulsivity, and various neurotransmitter systems. Furthermore, poorer subjective function in young hazardous drinkers indicates a possible metacognitive deficit, increased effort, or issues with vibrotactile perception as a cognitive function assessment in this group.

Impaired Gain And Loss Anticipation In Alcohol Dependency: An EEG Monetary Incentive Delay Study

Mica Komarnyckyj ▪ **University of Huddersfield**

Abstract

This study aimed to evaluate whether electroencephalography (EEG) is sensitive measure of disrupted reward anticipation in alcohol dependency (AD). A wealth of functional magnetic resonance imaging (fMRI) monetary incentive delay (MID) task research has shown AD is associated with a hypoactive striatal response during gain (monetary gain vs neutral cues) and loss anticipation (monetary loss vs neutral cues). EEG holds clinical advantages over fMRI (e.g., high temporal resolution, low upfront and minimal maintenance costs) however its use to study reward processing in AD is severely limited. This is the first study to recruit abstinent AD participants (n = 21, mean AUDIT score: 4.11, mean age: 45.10) and compare their EEG-MID data to healthy control (HC) participants (n = 26, mean AUDIT score: 34.35, mean age: 40.73). Clinical interviews covering lifetime drug/alcohol use, and the DSM-V criteria were used to categorise participants. Data were analysed using trial averaged event related potential (ERP) and a multivariate machine learning (ML) single trial approach. Impaired gain and loss anticipation in alcohol dependency: An electrophysiological Monetary Incentive Delay (e-MID) study The ERP analyses found enhanced cue-P3 amplitudes for monetary gain and loss compared to neutral cues in HC, which was absent in AD. Furthermore, the multivariate ML analyses demonstrated AD compared to HC exhibit reduced loss anticipation discrimination across the cue-P3 time window. Here, we demonstrate EEG sensitivity to a hypoactive neural response during reward anticipation in AD, which has previously been demonstrated with fMRI. Importantly, EEG components are identified which may be utilised during future psychopharmacological research for the evaluation of treatments for AD and wider substance use disorders.

Session 4

Tobacco and nicotine use and exposure

Chaired by: Katie East, SSA Academic Fellow ▪ King's College London

Global Prevalence Of Heated Tobacco Product Use, 2015 - 2022: A Systematic Review And Meta-Analysis

Tianze Sun ▪ University of Queensland

Abstract

Background: Heated tobacco products (HTPs) are electronic devices that heat processed tobacco to release aerosols that contain nicotine and other chemicals when inhaled. To inform future public health policy, this meta-analytic review estimated the global prevalence of HTP use by country, region, survey year, sex, and age group.

Methods: We systematically searched five databases between Jan 2010, and May 2022. Included studies reported prevalence of HTP use in nationally representative samples in populations of any age, between the onset of HTP use and 2022. A random effects meta-analysis estimated overall prevalence for lifetime, current and daily use.

Findings: We identified 44 studies (n=1,077,868) representing 42 countries or areas from the European Region, Western Pacific Region and the Region of the Americas that met our inclusion criteria. The prevalence for lifetime, current and daily use HTP use was 4.76% (4.05,5.53), 1.67% (1.36,2.01) and 0.79% (0.48,1.18) respectively. Prevalence of lifetime and current use of HTPs increased for the Western Pacific and European Region from 2015 to 2020. Meta-regression showed that prevalence of current HTP use was higher for the Western Pacific Region (3.80% [2.88,4.98]) compared to the European Region (1.40% [1.09,1.74]) and the Region of the Americas (0.81% [0.46,1.26]), males (3.45% [2.56,4.47]) compared to females (1.82% [1.39,2.29]). Adolescents had higher prevalence of lifetime HTP use (5.25% [4.36,6.21]) compared to adults (2.45% [0.79,4.97]). Due to the nationally representative nature of the studies, most surveys scored a low risk of bias for sampling frame. All studies had adequate sample sizes (median: 2,778 participants [interquartile range 1,074 to 5,533]) and relied on self-reported scales of HTP use.

Interpretation: Overall, nearly 5% of the populations included in the meta-analysis had tried HTPs and 1.7% are current users. The prevalence of HTP use has increased in regions where HTPs can be legally sold and are heavily marketed.

Predicting The Long-Term Effects Of Electronic Cigarette Use On Population Health: A Systematic Review Of Modelling Studies

Giang Vu ▪ University of Queensland

Abstract

Background and Aims: In the absence of epidemiological data on the long-term population health effects of electronic cigarette (e-cigarette) use, mathematical modelling has been used to estimate the probable population impacts to inform policy. This paper systematically reviewed these modelling studies to summarize their findings on predicted population impacts and identify potential research gaps.

Methods: We searched PubMed, Scopus, Web of Science and PsycINFO for modelling studies of e-cigarette use on population health published between 2010 and 2022. Data on study characteristics, model attributes and estimates of population impacts including health outcomes and smoking prevalence (primary and secondary outcomes, respectively) were extracted from each article.

Results: Of 3846 records identified, 32 were included in this review. The introduction of e-cigarettes was predicted to lead to decreased smoking-related mortality, increased quality-adjusted life years and reduced health system costs in 28 studies. Eighteen studies predicted a lower prevalence of cigarette smoking. Models that predicted negative population impacts assumed very high e-cigarette initiation rates among non-smokers and that e-cigarette use would discourage smoking cessation by a large margin. The majority of the studies were based on US population data and few studies included factors other than smoking status, such as, jurisdictional tobacco control policies or social influence.

Conclusions: A population increase in e-cigarette use may result in lower smoking prevalence and reduced burden of disease in the long run, especially if their use can be restricted to assisting smoking cessation. The outcomes of modelling studies, however, should be viewed in light of the uncertainty about multiple assumptions in the models and the lack of real-world data on key model parameters, such as long-term patterns of use and disease risk.

Feasibility And Acceptability Of Collecting Biomarker Data From Inpatient Psychiatric Service Users Who Vape And Or Smoke Or Do Neither

Eve Taylor ▪ King's College London

Abstract

Introduction: Death and diseases from tobacco smoking are substantially higher among those with mental health conditions (MHCs) than those without. Vaping is less harmful than smoking, but there is little research on toxicant exposure from smoking or vaping among people with MHCs as they are often excluded from research. We aimed to assess the feasibility and acceptability of collecting biomarker data from people with MHCs.

Methods: Participants with MHCs who smoke, vape, dual use, use nicotine replacement therapy (NRT) or non-users were recruited from inpatient psychiatric services. Participants completed questionnaires on smoking/vaping and provided breath carbon monoxide (CO) and urine samples at baseline and one-month. Feasibility was measured through participation rates. Acceptability was measured through useable samples, questionnaire completion, consistency of CO readings with reported product use.

Results: Nineteen participants were recruited, all were vapers, dual users or non-users. No participants who exclusively smoked or used NRT were identified. All participants were followed up at one month and all provided urine samples at both time points, 3(8%) of samples could not be used. CO testing was acceptable to most participants, with only 1(5%) participant not providing a baseline or follow-up reading. On average, participants did not answer 2.5% of the questionnaires across baseline and follow-up. These questions mainly concerned NRT and were often not applicable to participants. Exclusive vapers and non-users CO levels were consistent with reported use (0-2ppm). CO levels for dual users were lower than expected (0-11ppm).

Discussion: Methods had good feasibility and acceptability. The lack of participants' exclusively smoking is likely due to the success of hospital's smoke free policy. The low CO levels among dual users indicate infrequent smoking. Future research should recruit from community mental health settings as it is likely a more feasible method to recruit smokers and heavier smoking dual users.

Children's Exposure To Second-Hand Smoke 10 Years On From Smoke-Free Legislation In England: Cotinine Data From The Health Survey For England 1998-2018

Harry Tattan-Birch ▪ University College London

Abstract

Aim: To investigate trends in children's exposure to second-hand tobacco smoke in England from 1998 to 2018.

Methods: We used twenty-one years of data from the Health Survey for England, a yearly repeated cross-sectional population study. A total of 49,460 children participated between 1998 and 2018, of whom 17,463 were biochemically confirmed non-smokers aged 4-15. We examined changes in (i) the proportion of children living in reported smoke-free homes and (ii) second-hand smoke uptake, measured quantitatively using saliva cotinine concentration.

Findings: The percentage of children living in a home reported to be smoke-free increased from 63.0% (95% CI 60.5%-65.2%) in 1998 to 93.3% (91.8%-94.6%) in 2018. This increase was most pronounced among children with a smoker parent, rising from 17.1% (14.7%-19.8%) to 75.9% (70.8%-80.4%). Segmented regression showed that the rate of adoption of smoke-free homes accelerated leading up to the 2007 ban on smoking in public places, growing most rapidly in the four years after its entry into law. Between 1998 and 2018, there was a ten-fold decline in geometric mean cotinine among non-smoking children, from 0.50 ng/ml (0.46-0.56) to 0.05 ng/ml (0.04-0.06). A total of 65.0% (61.2%-68.6%) of children had undetectable cotinine in 2018, up from 14.3% (12.7%-16.0%) in 1998. Children living in rented accommodation were more exposed than those from owner-occupied households, but they experienced similar relative declines across years.

Conclusions: Cotinine data show that children's exposure to second-hand smoke has fallen by some 90% since 1998, with an apparent acceleration in adoption of smoke-free homes since the 2007 ban on smoking in public places. A norm has emerged that sees smoking in the home as inappropriate, almost universally where parents are non-smokers, but also increasingly among smoking parents.

Expert workshop and Q&A
Impact, inclusivity, and involvement in addictions research

Chaired by: Zoe Swithenbank, SSA PhD Student ▪ Liverpool John Moores University

Speaker biographies:

Dr. Magdelena Harris ▪ London School of Hygiene and Tropical Medicine

Magdalena Harris is a sociologist working with qualitative methods in the social science of drug use, health and harm reduction. She works in partnership with community organisations, and through peer research, in the fields of hepatitis C, opioid and crack use, and opioid substitution treatment service delivery. Magdalena is Associate Professor at the London School of Hygiene and Tropical Medicine and holds an honorary Inclusion Health Consultant position at University College London Hospital NHS Trust. She is PI for two NIHR-funded research projects: iHOST (Improving Hospital OST) and SIPP (Safe Inhalation Pipe Provision), both commencing in 2022. In 2020 she received the Society for Study of Addiction Impact Prize "in recognition of her high-quality, innovative research and its positive, practical impact for people who inject drugs" and in 2022 was elected a Membership through Distinction of the Faculty of Public Health.

Dr. Hannah Carver ▪ University of Stirling

Hannah is a Lecturer in Substance Use in the Faculty of Social Sciences, Co-Director of the Salvation Army Centre for Addiction Services and Research (SACASR) and Co-Deputy Convenor of the Drugs Research Network Scotland (DRNS). My research interests include substance use, marginalised populations, health inequalities, harm reduction and qualitative methodology.

Dr. Parvati Perman-Howe ▪ King's College London

Parvati is a postdoctoral research associate based at King's College London (KCL). She is a member of the Nicotine Research Group (at KCL) and the SPECTRUM Consortium. She is a mixed methods researcher with an interest in alcohol and tobacco harm prevention. Parvati also has plentiful experience of public involvement in research. She has set up and managed multiple public involvement groups including the Nicotine and Mental Health Group at KCL. She is currently working as the public involvement lead on an NIHR funded project on no- and low-alcohol products with the University of Sheffield. Parvati also works as an associate lecturer at Oxford Brookes University.

Ayan Ahmed ▪ University of Surrey

Ayan is currently a second year PhD Psychology candidate at the University of Surrey, researching drug uses in minority and marginalized populations in the UK. The main aim of her PhD is to explore the underlying neurobiological and cognitive consequences of khat (Catha edulis) by using behavioural tasks and brain imaging techniques. My research project involves using multidisciplinary approaches to understand substance misuse in African communities. To date, I have travelled to Ethiopia to examine the effects of khat on cognitive processes important to drug risk taking behaviour such as impulsivity, working memory and cognitive flexibility. She holds a combined bachelors degree in psychology and biology from Manchester Metropolitan University and masters degree in Neuroscience from Kings College, London. She has experience

of working and volunteering for local addiction and mental health charities supporting individuals from Black, Asian, and minority ethnic communities (BAME).

Zoe Swithenbank (Chair) ▪ Liverpool John Moores University

Zoe is a PhD student at Liverpool John Moores University, funded by the SSA. Her PhD is in behavioural interventions for smoking cessation in substance use treatment services. Prior to this, she completed a PGDip in Health Economics at the University of Aberdeen, and an MSc in Public Health: Addictions at LJMU, and has worked in community and residential substance use treatment services. Zoe also volunteers with a national mental health charity and is passionate about user involvement. Her research interests include substance use, mental health, and research methodology.