Written evidence from University of East London

About the authors

Prof. John Turner

Professor Turner is the Director of Research for the College of Applied Health and Communities at the University of East London. John is a co-founder and continuing member of the Drugs and Addictions Research group in the School of Psychology at UEL, working on projects relating to gambling treatment and education, nicotine addiction, alcoholism and recreational drug use. He has over 20 years research experience in the fields of drug use and addiction, and has produced and contributed to over 50 publications, mainly peer-reviewed journal papers and predominantly in the fields of drug and addictions research. John completed a PhD in the departments of Psychology and Neuroscience at the Institute of Psychiatry/Kings College London, after his first degree in Neuroscience (City of London Polytechnic).

Dr Kirstie Soar

Dr Soar completed her PhD in 2006 with Professors Andrew Parrott and John Turner at UEL, looking at the long-term psychological effects of problematic ecstasy (MDMA) users, and has since worked at UEL as a lecturer and now Principal Lecturer. Kirstie’s research has been published in international peer-reviewed journals and she has presented at numerous national and international conferences. Kirstie currently leads the UEL Drugs and Addictive Behaviours Research Group. This group builds on our tradition of studying the psychological effects of drugs, as well as behavioural addictions.

Dr Florentia Hadjiefthyvoulou

Dr Hadjiefthyvoulou is a senior lecturer in Psychology at the University of East London and a member of the Drugs and Addictions Research group. Her research concerns the impact of recreational drug use on cognition and memory and she has a number of publications in high impact peer-reviewed journals. Florentia completed her PhD at the University of Central Lancashire (UCLan) looking at the effect of ecstasy/polydrug use on prospective memory and executive functioning. She has since worked as a lecturer in Psychology at Nottingham Trent University before moving to UEL.
1. Brief Introduction

This document is a response to the recent Drugs Policy call from the Health and Social Care committee, for submissions of information relating to health consequences of illicit drug use. Our Drugs and Addictions Research group at the University of East London has been looking at the impact of recreational drug use\(^1\), experiences of users and their families for over 25 years; notably with work around nicotine/smoking, MDMA (ecstasy) and most recently vaping (of both legal and illegal substances). Our work to date most clearly informs understandings of the impact of (non-dependent) recreational drug use on psychological health and wellbeing, but has important implications for prevention/early intervention, the management of harm and treatment.

Below we summarise some of our work which we feel is most relevant to the current remit of the Committee. This list is not exhaustive and more generally our work sits within a broader literature exploring recreational drug use (as indicated/reviewed in all our published works).

\(^1\) Our work has almost exclusively aimed to looked at use of drugs in the general population and not in people with a diagnosis of drug dependence. Whilst an obvious point, it should be noted that the overwhelming majority of people who use recreational drugs (legal and illegal) are not addicted to/dependent on the substances they use. As such, our research has relevance to a much larger proportion of drug users than the more focussed field of drug addiction.
2. Recreational use of Ecstasy/MDMA and other club drugs

Cognitive health and drug use:

Numerous studies have identified possible links between the recreational use of stimulant type drugs; our own work has sought to explore and add to this knowledge base. Professor Andy Parrott (now at Swansea University) began his own world leading research around cognitive effects of ecstasy/MDMA as part of our UEL research group, and more recently Dr Hadjiefthyvoulou has shed light on specific impairing effects on everyday memory (known as prospective memory). This evidence suggests that memory lapses might be more evident in recreational drug users and can potentially interfere with their day-to-day tasks. In addition, our work has looked at polydrug use and other common recreational substances, notably cocaine, and negative cognitive effects or cognitive change associated with use. Specifically these studies have shown that even at lower recreational levels, cocaine use is associated with deficits which are in the same areas of cognitive performance shown to be impaired in chronic dependent cocaine users. These cognitive deficits could be a consequence of the drug itself or could be reasons for continued and sustained use.

Relevant papers:


Ecstasy/MDMA and mental health:

Our work has added significantly to findings over the last 20 years that amongst the heaviest users, ecstasy/MDMA use appears to be associated with a poorer profile of mental wellbeing. Our findings in particular highlight that frequent heavy use may be especially problematic for individuals who also use other legal and illegal substances (generally referred to as polydrug use), and in those with pre-existing psychological vulnerabilities.

Relevant papers:


3. Ecstasy/MDMA use during pregnancy and effects on infants

Our group were the first (and to date still one of the very few) to study the possible effects of in utero exposure to ecstasy/MDMA on subsequent infant development. This 7 year project was a collaboration with noted paediatric specialist Professor Lynne Singer at Case Western University in Cleveland Ohio, with data collected in the UK and the project funded by the US National Institute on Drug Abuse (NIDA, part of NIH). Findings indicated that infants exposed to ecstasy/MDMA, taken by their mothers during pregnancy, showed significant delays in motor development across the first 2 years of life (with unfortunately no further funding to support later age assessment). Other recreational drug use did not appear to contribute to this effect. The study also found that mothers in the sample who stopped their ecstasy/MDMA use when finding out they were pregnant, showed improvements in their mental wellbeing (notably reductions in symptoms of depression).

These data should be used to inform antenatal practices, to support better screening practices (e.g. more effectively asking about drug use prior to or during pregnancy) and/or provide additional information for new mothers. The findings might also inform practice and understanding in relation to otherwise ‘unexplained’ developmental delays

Relevant papers:

4. Novel psychoactive substances and novel methods of use

A considerable concern for international policy makers is the rise of so called Novel Psychoactive substances (previously referred to as ‘legal highs’ due to the legal status of these substances prior to the introduction of the UK Psychoactive Substance reform in 2016). We are beginning to research in this field in collaboration with Louisiana State University and London South Bank University, and have also recently published guidance for Counsellors working with students in universities and colleges; on how to identify and manage negative effects of ‘unknown’ novel substances.

In addition, we have also conducted a few studies looking at novel methods of drug consumption: notably the use of alcohol gels (identifying significant cognitive harm) and ‘vaping’ of cannabis (a way of disguising drug use).

Relevant papers:


5. Summary and Conclusions – Terms of Reference

Taking an overview of the data highlighted briefly in this document and more detailed findings in the listed publications, we can make the following concluding observations in line with the Drugs policy inquiry’s terms of reference:

**Health and harms:**

- Ecstasy/MDMA is a drug associated with harm (both acutely and following long periods of use), but long term psychological/cognitive harm appears most closely linked to heavy use, use of other substances and harm may be most prevalent in individuals with underlying psychological vulnerabilities
- Our work looking at ecstasy/MDMA in pregnant women suggests that even relatively light use of this substance might affect infant development
Cocaine and novel psychoactive drugs also appear to pose potential risk, and are areas where much more research looking at recreational use is needed

Treatment and harm reduction:

- Policy and practice should possibly focus on education around dangers of co-use of powerful psychoactive drugs to reduce harm, especially in at risk populations: e.g. people (especially males) with riskier drug use patterns and use of multiple substances, those with existing mental health problems/vulnerabilities and pregnant women
- The challenge of novel psychoactive substances may necessitate changes in the ways we research and approach understanding of individual substances, how we inform users and communities about potential harm and how we manage the treatment of problems associated with acute and chronic use

Best practice:

- Concerning the drugs we have researched most (which fall into the broad categories of Amphetamine Type Stimulants (e.g. ecstasy/MDMA) and Stimulants), there is a relative dearth of well researched and accepted harm reduction strategies; especially when compared to services supporting and research into opiate use and injecting drug use/dependence
- This is to some understandable, but clearly more needs to be done to support recreational drug users to reduce and/or minimise potential harms. Some good examples of where change is happening in this direction include recent guidance from the Netherlands\(^2\) and the Novel Psychoactive Treatment UK Network\(^3\)

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