How best to screen for and assess alcohol use and consequences in young people?

Dr Paul Toner

Academic Fellowship: 2015 - 2019

Alcohol is responsible for approximately 3.3 million deaths per year and is the leading risk factor for mortality among people aged 15 to 49.1 My SSA Griffith Edwards Academic Fellowship Award enabled me to address a key research question idenfied in the literaure and by public health experts in the UK - Which screening tool should be considered as the 'gold standard' for assessing the drinking behaviour of those under the age of 18?²

I <u>co-designed and led</u> the first <u>comprehensive evaluation</u> of all the available diagnostic and psychometric research evidence on alcohol screening and assessment for young people. Through this rigorous review, I provided policy-relevant recommendations for practitioners and researchers on how best to screen for alcohol use and problems in young people.

The review found that if practitioners have the opportunity to ask only one question about alcohol consumption they should ask about alcohol frequency (e.g. *On how many days have you had an alcoholic drink in the past month?*) or quantity (e.g. *On the days that you drank alcohol during the past 30 days, how many drinks did you usually have each day?*).³ If there is an opportunity to ask more questions either the AUDIT-C (Alcohol Use Disorders Identification Test - Consumption subscale) or the full AUDIT⁴ are recommended.

In contrast to the screening measures, there was limited evidence supporting the use of alcohol assessment tools designed to measure alcohol consequences or problems. None of the identified instruments had enough validation studies to support combining estimates (meta-analysis) or recommendations for practice. The YAACQ (Young Adult Alcohol Consequences Questionnaire)⁵ appears most promising among the existing assessment measures. However, it contains 48 questions which may not be practical to implement in many settings. Therefore, the review idenfied a need to develop new instruments to assess alcohol-related consequences in young people.

To further advance the field, I then co-produced, with qualitative and quantitative data from around 1,600 young people developmentally sensistive, reliable and valid items. Young people were involved from a range of settings, for example, pupil referral units, supported accommodation, criminal justice settings, schools, colleges and community groups.

The best performing screening item was:

- On how many days in the last three months did you have six or more drinks on the same occasion? The assessment items which include questions such as:
 - Have you said or done embarrassing things when drinking?
 - Have friends told you about things you said or did while you were drinking that you could not remember?
 - Have you surprised yourself while drinking by doing something unexpected?

Were found to be reliable (alpha value of .95) and applicable to assess the continuum of alcohol-related risk and harm in young people.

With excellent support from the SSA, this programme of work has advanced the scientific understanding of measurement of alcohol consumption, risks and harms among young people below the legal minimum age for buying alcohol. This work is important because there is consistent evidence that higher alcohol consumption in adolescence continues into adulthood, and is also associated with alcohol problems including dependence. This means that having efficient measures to assess drinking among young people potentially offers opportunities for early interventions.

The SSA fellowship provided me with the opportunity to lead a high-quality programme of work to develop psychometrically validated alcohol criterion measures for young people. I have been privileged to disseminate

the results at several international conferences: e.g. the SSA Annual Conference, Newcastle, UK; the 13th Annual Conference of the International Network on Brief Interventions for Alcohol and Other Drugs (INEBRIA), Lausanne, Switzerland; the 49th International Annual Meeting of the Society for Psychotherapy Research, Amsterdam; and the 33rd Annual Conference of the European Health Psychology Society, Dubrovnik, Croatia.



To expand and develop the research programme, I successfully secured funding for a PhD studentship in September 2019 for further validation of the measures, thus providing opportunities for advanced methodological training while making a societal impact with a particularly vulnerable population. In terms of cross-cultural validation, key international researchers involved in validation studies for alcohol screening, e.g., Professor Tammy Chung (University of Pittsburgh) and assessment, e.g., Dr Jennifer Merrill (Brown University) in young people have been provided with the items. This marks an important first step for uptake of the measures in a research and practice capacity internationally. Further studies to embed the measures in appropriate practice settings are also in preparation.



My award provided career development opportunities in addiction science both within and beyond the SSA. I received academic mentorship from Dr Jan Böhnke (University of Dundee) and Professor Jim McCambridge (University of York) and my SSA link mentor was Professor Eilish Gilvarry. Examples of SSA opportunities include: I co-organised with Dr Jenny Scott (University of Bath) the 2017 SSA PhD Symposium; was a discussant at a SSA-sponsored sessions on the future of addiction research at Lisbon Addictions 2017; attended SSA trustee board meetings; and I am currently a member of the SSA Annual Conference Scientific Committee.

In September 2018, I was appointed Lecturer in Clinical and Health Psychology at the <u>Centre for Improving Health-Related Quality of Life (CIHRQoL)</u>, <u>School of Psychology</u>, Queen's University Belfast (QUB). I am leading

on addiction research and working with colleagues on funding applications to increase capacity and methodological rigor in the area of Clinical Health Psychology. I have developed a mentorship role, as Postdoctoral Research Fellow mentor in the School I lead initiatives to support the career development of research staff and I am a member of the School's Research Committee with strategic overview on research priorities and activities. I currently supervise three Postgraduate Research students as primary supervisor and five as second supervisor and I am on the Open Science working group to promote best research practice and making findings accessible to the public. Also in September 2018, I was awarded a three-year Visiting Research Fellow position in the Department of Health Sciences at the University of York and have maintained and expanded collaborations within this institution.

With the support of the SSA and QUB, I organised an addiction showcase event in May 2019. Three current SSA fellows and future leaders in addiction science (Drs Inge Kersbergen, Steve Sharman and Tom Freeman) presented their latest innovative research at the QUB Addiction Research Seminar. This very successful event has led to addiction-related collaborations with clinicians and academics nationally.



I work in applied areas with at risk populations where it is not easy to do high-quality research. My fellowship research has been conducted to high standards and is of international significance. The work has also facilitated new callobarations with leading addiction scientists such as Professor Robert West (University College London) on building an addiction ontology; with my knowledge on screening and assessment directly informing the measurement aspect of the work. I am so thankful to the SSA for supporting me to continue to lead rigorous research which aims to prevent and alleviate the suffering and economic burden caused by alcohol and other addictions.



- 1. Shield KD, Rehm J. (2015). Global risk factor rankings: the importance of age-based health loss inequities caused by alcohol and other risk factors. *BMC Research Notes*, 8:231.
- 2. NICE public health guidance 24. (2010). Alcohol-Use Disorders: Preventing the Development of Hazardous and Harmful Drinking. England.
- 3. Chung T, Smith GT, Donovan JE et al. (2012). Drinking frequency as a brief screen for adolescent alcohol problems. *Pediatrics*, *129*(2):205–212.
- 4. Saunders J, Aasland O, Babor TF et al. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption—II. *Addiction*, 88:791–804.
- 5. Read RP, Kahler CW, Strong DR, Colder CR. (2006). Development and preliminary validation of the Young Adult Alcohol Consequences Questionnaire. *Journal of Studies on Alcohol and Drugs, 67*(1):169-177.