

## Digital innovation in alcohol and other drug use research and practice

**Co-Chairs:** Katherine M Conigrave and Jimmy Perry

**Co-Chairs' email:** [kate.conigrave@sydney.edu.au](mailto:kate.conigrave@sydney.edu.au), [jimmy@adac.org.au](mailto:jimmy@adac.org.au)

### Authors:

Kylie Lee<sup>1,2,3,4,5</sup>, Scott Wilson<sup>6,2</sup>, Robert Ali<sup>7</sup>, Matthew Stevens<sup>7</sup>, Leanne Hides<sup>8</sup>, James Ward<sup>9</sup>, Rachel Reilly<sup>10,11</sup>, Jason Ramp<sup>10</sup>, Noel Hayman<sup>12,13,14</sup>, James H Conigrave<sup>15</sup>, Jimmy Perry<sup>6</sup>, Katherine M Conigrave<sup>16,1,2</sup>

<sup>1</sup>NHMRC Centre of Research Excellence in Indigenous Health and Alcohol, Faculty of Medicine and Health, Central Clinical School, Discipline of Addiction Medicine, Camperdown, Australia, <sup>2</sup>The Edith Collins Centre (Translational Research in Alcohol, Drugs and Toxicology), Sydney Local Health District, Camperdown, Australia, <sup>3</sup>National Drug Research Institute, Faculty of Health Sciences, Curtin University, Perth, Australia, <sup>4</sup>Burnet Institute, Melbourne, Australia, <sup>5</sup>La Trobe University, Centre for Alcohol Policy Research, Bundoora, Australia, <sup>6</sup>Aboriginal Drug and Alcohol Council South Australia, Underdale, Australia, <sup>7</sup>Faculty of Health and Medical Sciences, University of Adelaide, Adelaide, Australia, <sup>8</sup>School of Psychology, The University of Queensland, Brisbane, Australia, <sup>9</sup>Poche Centre for Indigenous Health, University of Queensland, Brisbane, Australia, <sup>10</sup>Wardliparingga Aboriginal Health Equity Unit, South Australian Health and Medical Research Institute, Adelaide, Australia, <sup>11</sup>School of Psychology, Faculty of Health and Medical Sciences, The University of Adelaide, Adelaide, Australia, <sup>12</sup>Southern Queensland Centre of Excellence in Aboriginal and Torres Strait Islander Primary Health Care (Inala Indigenous Health Service), Australia, <sup>13</sup>School of Medicine, Griffith University, Brisbane, Australia, <sup>14</sup>School of Medicine, University of Queensland, Brisbane, Australia, <sup>15</sup>Institute for Positive Psychology and Education, Australian Catholic University, North Sydney, Australia, <sup>16</sup>Drug Health Services, Royal Prince Alfred Hospital, Camperdown, Australia

**Overall aim of symposium:** Digital and emerging technologies present unique opportunities to re-think how we can conduct research and deliver care in relation to alcohol and other drug use. These new approaches can help to address stigma and sensitivities around substance use for individuals, their families and whole communities. Digital innovation also allows for: appealing, visual and interactive tools; an immediate response for the client after assessment; consistency in assessment and in tailored clinical feedback; the ability to work offline and later be synchronised via Wi-Fi (to ensure data storage and/or clinician notification), and rapid knowledge translation. This symposium brings together researchers, health service delivery experts and clinicians to discuss the way forward in digital innovation when researching highly sensitive issues or offering care related to alcohol and/or other drug use.

## **PRESENTATION 1: Tailored brief interventions and flexible content management systems: to enable the Grog app to be adapted across language and context**

### **Presenting Authors:**

*Kylie Lee, Scott Wilson, Jimmy Perry, James Conigrave, Catherine Zheng, Liz Dale, Monika Dzidowska, Robert Ali, Nadine Ezard, Kate Conigrave*

**Background:** Digital approaches offer advantages in assessing alcohol consumption and providing tailored feedback (brief intervention). They can potentially be adapted across language and cultures. Here we describe the principals underpinning the alcohol brief intervention offered on the Grog App; and the utility of a flexible and customisable digital survey tool build.

**Approach:** The Grog App was developed with Aboriginal and Torres Strait Islander primary health care services, drug and alcohol health professionals, community members and researchers. Designed as a population survey tool, it is engaging, visual and non-judgemental. It allows a person to describe their drinking and receive tailored feedback. The App delivers questions in male or female, and in English or Pitjantjatjara voiceover. But the latest build allows any language or visuals to be 'slotted in' for global adaptability.

**Key Findings:** This tool has been shown to be accurate, reliable and acceptable for measuring alcohol consumption. Its brief intervention now combines the FLAGS model with the Aboriginal and Torres Strait Islander Social and Emotional Wellbeing model. Individualised feedback on drinking is provided to promote reflection. The survey structure and App assets are stored in a flexible content management system, which allows researchers to modify survey items, images, audio tracks, alcoholic products and containers. So, the App can be readily adapted for different populations or research objectives.

**Conclusions and Next Steps:** Technology such as the Grog App offers a unique opportunity to scale up delivery of digital brief interventions and flexible research tools, across language and cultural contexts.

**Disclosure of Interest Statement:** No pharmaceutical grants were received in the development of this study. This work was supported by National Health and Medical Research Council (NHMRC) by a Project Grant (APP1087192), an Ideas Grant (APP1183744) and the Centre of Research Excellence in Indigenous Health and Alcohol (APP1117198). KC was supported by an NHMRC Practitioner Fellowship (APP1117582).

## **PRESENTATION 2: Digital interventions for substance use disorders: challenges and opportunities from the lens of primary health**

### **Presenting Authors:**

*Robert Ali, Matthew Stevens*

**Introduction / Issues:** Digital interventions for substance use allow for the provision of immediate, tailored feedback to the individual on ways to reduce consumption and risk, and provide connection to a referral for those at greater risk. In primary healthcare settings, digital interventions can save valuable consultation time by allowing consumers to self-assess, and send private results securely to their doctor. However challenges and opportunities related to these tools have become an increasing focal point in recent years. These include cybersecurity and the opportunities presented by cloud-based data storage; linkage to electronic medical records (EMRs) and practice software systems; and the capacity to provide nuanced, tailored information to both clinicians and consumers concurrently. This presentation will discuss these challenges and opportunities.

**Approach:** The role of cybersecurity in the protection of individual's private medical data is gaining public awareness. Whereas previously, data obtained digital interventions like the ASSIST Checkup app stored information locally, on-device to ensure security; the linkage opportunities to EMRs have necessitated a shift towards centralised, cloud-based storage of data, with additional security measures.

**Key Findings / Results:** Cloud-based storage and EMR linkage opportunities have opened up a variety of possibilities, including the assessment and tracking a patients' level of risk over time regardless of the mode of screening (i.e., self-completed vs clinician administered; app-based vs. web-based). This also allows for the possibility of assessing clinically meaningful improvement scores over time.

**Conclusions and Next Steps:** Successful implementation requires a variety of foundations to be laid. These include incorporation of ASSIST into practice software systems (e.g., Best Practice, Medical Director); incentivising GPs to conduct SBIRT through Medicare reimbursement; and building the knowledge and awareness of digital interventions through workforce development.

**Implications for Practice or Policy:** Implications for practice and policy, include seamless integration with EMRs to facilitate better patient care, while reiterating the need for Medicare reimbursement for SBIRT delivery.

**Disclosure of Interest Statement:** RA and MS are funded by an Australian Government Department of Health Grant (4-HPM6GG7).

### **PRESENTATION 3: Implementation of an innovative web-app for methamphetamine use in Aboriginal and Torres Strait Islander health services: Lessons and challenges**

#### **Presenting Authors:**

*James Ward, Jason Ramp, Rachel Reilly*

**Introduction:** '*Wadi Wanti: Leave the Ice Alone*' (previously 'We Can Do This'), was developed as part of a larger project that sought to develop novel community-based prevention and treatment approaches for methamphetamine use. *Wada Wanti* is a web-app designed to support Aboriginal and Torres Strait Islander people reduce or stop using methamphetamine. A mixed-methods evaluation indicated that the app was most useful in a supported context, for example as an adjunct to counselling. This finding led to further questions, including: what do services need to be able to incorporate digital tools into their practice? What supports are required to enable their use? Lastly, how can digital interventions be sustained over the longer term?

**Method:** We sought to answer these questions via a small survey assessing provider needs, and a case study involving a documentary film and qualitative exploration of how the web-app is being used in a real-world context.

**Key Findings:** Responses to the survey (n=35) indicated that most clinicians use web-based resources for information but many use printed resources (e.g. worksheets) within patient consultations. The main barrier to using web-based tools was awareness and inadequate Wi-Fi and hardware. Almost all participants indicated they would like more training in the use of digital tools. These findings were supported in the case study, which further indicated the web-app was particularly favoured when delivered by lived-experience workers.

**Conclusions and Next Steps:** This work has enabled a deeper understanding of the barriers and facilitators of implementation of the web-app in complex organisational environments. Findings have been incorporated into a clinician guide and training resources that have been distributed to services nationally. Improving the web-app is an ongoing, dynamic process.

#### **Disclosure of Interest Statement:**

## **PRESENTATION 4: THE QUIKFIX GOOD NIGHT OUT (GNO) SOCIAL NETWORK TARGETED DIGITAL HEALTH PROGRAM FOR REDUCING ALCOHOL AND OTHER DRUG (AOD) USE IN FIRST YEAR UNIVERSITY COLLEGE STUDENTS**

### **Presenting Authors:**

*Leanne Hides*

**Introduction:** There are high levels of AOD use on university campuses. Social networks play a key role in problematic AOD use in these settings. This presentation describes the QuikFix GNO College digital health program, its level of student uptake and outcomes.

**Method:** The QuikFix GNO College Program targets AOD use in the social networks of students in two ways:

1. AOD trivia multimedia workshop delivered by peer leaders to all students in O-week
2. Delivery of QuikFix app supported brief telehealth intervention to the most socially influential (strategic players) heavy drinking students.
3. A cluster randomized controlled trial compared the efficacy of 1) the full QuikFix college Program (workshop + brief intervention), 2) the workshop only, and 3) standard AOD information as usual control. The ASSIST was the primary outcome measure.

**Results:** First year college students ( $n=716$ , 80%) from 6 colleges participated. Just over 70% of eligible students completed at least one brief intervention module. Students who received the full GNO program reported less alcohol use and related problems at 6 months than those the workshop group ( $p = 0.004$ ). Students in both the GNO workshop ( $p = 0.004$ ) and full program groups ( $p = 0.005$ ) reported less other drug use and related problems at 3 months than controls, but these effects only remained in the full GNO program group at 6 months ( $p = 0.003$ ).

**Conclusion:** While these results are promising, it is unclear which components of the GNO program are most effective for reducing AOD use in students.

**Disclosure of Interest Statement:** The QuikFix college study was supported by Commonwealth funding from the Australian Government provided under the Drug and Alcohol Program, which was granted to the National Centre for Youth Substance Use Research. The authors have no conflicts of interest to disclose.

**Discussion Section:** A range of topics will be discussed arising from the four presentations on digital innovation:

1. Why do digital tools offer unique opportunities to get messages about alcohol and other drug use to individuals?
2. How can digital technologies be harnessed to inform a range of priority populations about alcohol and other drugs?
3. What is the role for tailored digital brief interventions given workforce issues, particularly in regional or isolated communities?
4. Can we empower individuals around sensitive topics using local language in survey or screening questions, and tailored feedback?
5. The utility of flexible and customisable content management systems ('back-ends') to assist with digital invocation projects in research or practice
6. Cybersecurity issues when collecting individuals' private medical data (in hospital or primary care settings)
7. Cloud-based storage and electronic medical record (EMR) linkage opportunities to monitor substance use over time
8. What do services need to be able to incorporate digital tools into their practice?
9. How can digital interventions be sustained over the longer-term by health and related services?
10. Approaches to get digital tools working where the internet is limited.
11. What is the role of once-off opportunistic or repeated brief interventions in digital innovation efforts on alcohol and other drug use?