COGNITION IN DRUG AND ALCOHOL SERVICES

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Aim of Abstract:
It is well established that chronic substance use disorder (SUD) can cause substantial cognitive deficits; estimates of cognitive impairment in individuals with SUD vary widely, but have been reported as one- to two-thirds of individuals presenting for treatment. The aim of this symposium is to:

- enhance understanding of the patterns of cognitive impairment in clients of drug and alcohol (D&A) treatment
- examine models of screening and assessment of cognition in D&A clients
- explore options for cognitive rehabilitation in D&A clients

PRESENTATION 1 - COGNITIVE IMPAIRMENT AND THE HEALTH SYSTEM

Perry N

Introduction / Issues: If a standardised screening process is introduced as part of routine drug and alcohol clinical practice, based on current estimates, a large portion of clients accessing our services are likely to be diagnosed with a cognitive impairment. It is important that service delivery and access to the broader health system are considered as part of the screening and diagnostic implementation process. To ensure that clients with cognitive impairments are adequately and appropriately treated, treatment planning and service delivery will need to be reviewed. This presentation will discuss the current challenges in navigating a complex service system for clients with these specific needs.

Method / Approach: This presentation will provide case examples of navigating a complex health system, considerations for treatment for clients with cognitive impairment and referral options.

Key Findings: Clients accessing drug and alcohol clinical services with cognitive impairment often require a review of their current clinical treatment. Clients may also be eligible for clinical treatment packages and able to access other services within our current health system such as whole of health support and clinical health pathways.

Discussions and Conclusions: Providing clinical treatment for clients with complex issues and cognitive impairment requires improvement to our current system.

Implications for Practice or Policy: These findings suggest that detection of cognitive impairment within our drug and alcohol clinical services requires a significant and well considered implementation. Clients' treatment needs post cognitive screening and assessment need to be considered.

PRESENTATION 2 – RISK FACTORS FOR COGNITIVE IMPAIRMENT IN DRUG AND ALCOHOL CLIENTS

Monds L, Ridley N, Malcolm A, Finsterer K, Lintzeris N.

Introduction and Aims: Despite the recognised impact of cognitive deficits on treatment outcomes, cognitive assessment has not typically formed a standard part of client evaluation in substance use settings. The aim of this project was to test and validate a risk assessment questionnaire for identifying cognitive deficits in a convenience sample of 120 clients attending SESLHD Drug and Alcohol (D&A) services for opioid substitution treatment (OST).

Design and Methods: As part of routine care in SESLHD D&A services, a brief acquired brain injury (ABI) risk questionnaire is included in client assessment on the Community Health and Outpatient Care electronic medical record system. Clinical services embarked on a QI project whereby additional measures were rolled out in the service: this included a validated cognitive screening instrument (the Montreal Cognitive Assessment; MoCA) alongside a more detailed risk factor assessment.

Results: Participants had on average 9.6 years of education. The average MoCA score was 24.6, and 65% of the sample scored below the validated cut-score (<26) for suspected cognitive impairment. The specific risk factors best predictive of cognitive deficits in this group are discussed.

Discussion and Conclusions: The results demonstrate the high prevalence of cognitive deficits in OST clients. These clients have multiple risk factors for cognitive impairment. The results suggest that cognitive screening should form a routine part of holistic care in this context, and that specific risk factor questions (e.g., age) could be used to flag clients most at risk for cognitive deficits.

PRESENTATION 3 – SHOULD WE DEVELOP A CONSENSUS COGNITIVE BATTERY FOR SUBSTANCE USE DISORDERS?

Bruno R, Cheung M, Chau V

Introduction / Issues: Cognitive deficits are a common clinical feature in people presenting to substance use disorder treatment. Such deficits impact on treatment approaches (such as the efficacy of cognitive-behavioural interventions), and also relate to risk of relapse and functional outcome. As such, cognitive deficits may be important treatment targets in their own right. However, the literature in this area is unfocussed, which limits advancement of the field. We propose the development of a consensus battery of cognitive tests that can be applied routinely in clinical contexts and in clinical trials in order to harmonise work and speed the development pipeline for potential interventions.

Method / Approach: Building on frameworks developed in the schizophrenia research field, the development of such a consensus battery requires a number of steps. Firstly, systematic reviews examining a) the cognitive domains affected among individuals seeking treatment for substance use; b) the range of neuropsychological tests applied for assessing these domains; and c) the evidence for the association between identified cognitive domains and treatment and functional outcomes; have been initiated. Surveys of clinical practitioners and researchers will be conducted to identify additional candidate neuropsychological tests. Candidate tests for each identified cognitive domain will be reviewed for psychometrics, practice effects, floor/ceiling effects, and practicality for clinical application. From this, a consensus process will be implemented to develop an alpha assessment battery. This can then be piloted in multiple sites in order for usability assessment, Australian norm development and assessment of association of domains with clinical outcome.

Implications for Translational Research: The implementation of a standardized battery in schizophrenia hastened the development of pharmaceutical and behavioural interventions to enhance cognition. It is anticipated that bringing this process into the substance use field will produce similar benefits, in addition to providing practical assessment tools and increased attention to the importance of cognitive functioning in clinical practice.

PRESENTATION 4 – COGNITIVE REMEDIATION IN A DRUG AND ALCOHOL SETTING – DOES IT WORK? TRIALING A TARGETED COGNITIVE REMEDIATION PROGRAM AT WHOS NEW BEGINNINGS

Marceau EM, Lunn J, Berry J, Kelly PJ, Solowij N

Introduction / Issues: Marceau, et al (2015) demonstrated that 43.8% of clients (n=128) accessing We Help Ourselves (WHOS), a Therapeutic Community AOD treatment service, met criteria for cognitive impairment as determined by the Montreal Cognitive Assessment (MoCA). Impaired cognitive function, particularly executive functioning, results in reduced capacity to:

- organise, plan, solve problems
- make decisions quickly
- moderate emotions

Design and Methods: The intervention comprised of twelve, two-hour sessions, run three times per week over 4 weeks and included:

- 1 hr of group work (focus on strategies to address executive function, attention and memory difficulties)
- 1hr Lumosity Brain training (completed on iPads)

A comprehensive assessment battery was completed at baseline and following the intervention, and an abbreviated battery was administered three months post intervention. The results were compared to a treatment as usual control group who completed the same batteries at the same time intervals in the absence of the intervention.

Results: Preliminary results (not including three month follow-up data, control group three month follow-up data is still being collected) demonstrated that after adjusting for baseline BRIEF-A score, the intervention group scored significantly better across a range of executive functions than the control group at one month. Further effect sizes, based on Cohen's (1988) guidelines were, in general, large.

Discussion and Conclusions: These early findings are very promising and suggest that cognitive remediation during treatment for AOD use may have improved a range of components of executive function. Clients highly valued and were engaged in the intervention.

Implications for Practice or Policy: These early findings are very promising and suggest that cognitive remediation during treatment for AOD use may have improved a range of components of executive function. Clients highly valued and were engaged in the intervention.

Implications for Translational Research: The research was successfully conducted within an existing AOD service and the next phase of this research project is to train existing staff to facilitate the group-work to ensure long term sustainability of the intervention.

Discussion Section: The discussion section will be led by Dr Nicole Ridley, a neuropsychologist specialising in cognition in D&A treatment. The discussion component of the symposium will allow for workers in the D&A field to consider the provision of cognitive services in D&A treatment settings. There will be opportunity for attendees to reflect upon the capacity of their own treatment setting to deliver appropriate cognitive screening, assessment and treatment. Barriers and enablers for addressing cognition in D&A services will also be considered.

Disclosure of Interest Statement: R Bruno has received investigator-driven untied educational grants for unrelated work from Reckitt Benckiser for (a) the development of an opioid-related behavior scale, and (b) a study of opioid substitution therapy uptake among chronic non-cancer pain patients; and Mundipharma for post-marketing surveillance studies of a tamper-resistant formulation of oxycodone. Neither company had input into the design, conduct, data collection, analyses or publication of these studies' findings.

N Lintzeris has received untied educational grants from Reckitt Benckiser and Indivior for (methadone to buprenorphine transfer research, opioid related behavior scale development), and from Braeburn Pharmaceuticals for a multisite sponsored trial investigating an opioid medication. These projects are unrelated to the presentations in this symposium.