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Clinician identification of elevated symptoms of depression among individuals seeking treatment for substance misuse

Breanne Hobden[a,b,*], Mariko Carey[a,b], Jamie Bryant[a,b], Rob Sanson-Fisher[a,b,*], Christopher Oldmeadow[c,d]

[a] Health Behaviour Research Group, HMRI Building, University of Newcastle, New South Wales 2308, Australia
[b] Priority Research Centre in Health Behaviour and Hunter Medical Research Institute, HMRI Building, University of Newcastle, New South Wales 2308, Australia
[c] Public Health Stream,Hunter Medical Research Institute, HMRI Building, New South Wales 2308, Australia
[d] Centre for Clinical Epidemiology and Biostatistics,University of Newcastle, HMRI Building, University of Newcastle, New South Wales 2308, Australia

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ABSTRACT

Background: Depression is common among those experiencing alcohol and other drug (AOD) disorders. It has been suggested that identifying depressive symptoms among this group is important for case management. Despite this, there is a lack of research examining how well clinicians perform this task within this setting.
Aims: To determine the: (i) accuracy of clinician identified elevated symptoms of depression among clients seeking treatment for AOD misuse as compared to a standardized self-report psychiatric screening tool; and (ii) clinician and client characteristics associated with accurate identification of elevated symptoms of depression.
Methods: The study used a descriptive cohort design. Participants from two Australian AOD outpatient clinics reported demographic data and completed the Patient Health Questionnaire (PHQ-9) to identify elevated symptoms of depression. Clinicians were asked to indicate the presence or absence of depression for individual clients. Client and clinician data were compared.
Results: Sensitivity of clinician identified elevated symptoms of depression, compared with the PHQ-9, was moderate at 73.0% (95% CI = 63.7, 81.0) and specificity was low with 49.5% (95% CI = 39.9, 61.2) accurately identified as not having elevated symptoms of depression. AOD clinicians' years' of experience, clients' main substance and length of treatment were associated with accuracy of identification.
Conclusion: Clinicians identify elevated symptoms of depression with moderate accuracy amongst individuals with AOD disorders. There is a tendency to over-identify which may contribute to inaccuracies. Routine screening may assist in improving identification of depressive symptoms and place greater focus on mental health comorbidities.

1. Introduction

1.1. Depression is common among those with an AOD disorder

The lifetime rate of depression among those with alcohol or other drug (AOD) disorders is high. A recent *meta*-analysis of population-based epidemiological surveys found depression is 3–4 times more likely to occur in those with an AOD disorder compared with those without (Lai et al., 2015). Individuals experiencing depression as well as an AOD disorder experience greater: intensity of depressive symptoms, functional impairment and number of suicide attempts compared to either condition alone (Davis et al., 2006; Johnston et al., 2009; Teesson et al., 2009). Within AOD treatment services mental health conditions are typically over-represented compared to the general population (Teesson and Proudfoot, 2003), with a recent *meta*-analysis estimating the prevalence of depression to be 27–85% in AOD treatment settings (Kingston et al., 2016).

1.2. Identifying depression is important within AOD treatment settings

It has been suggested that co-occurring mental health conditions among those seeking treatment for AOD disorders should be considered the rule, rather than the exception (Marel et al., 2016). Early identification and diagnosis of mental health conditions has been shown to improve treatment outcomes, improve prognosis and allow for more comprehensive treatment (Berk et al., 2010; Chan et al., 2008; Myrick and Brady, 2003; Stafford et al., 2013). Furthermore, depression contributes to poor quality of life (IsHak et al., 2011) and has an adverse

* Corresponding authors at: Health Behaviour Research Group, HMRI Building, University of Newcastle, New South Wales 2308, Australia.
E-mail address: Bree.Hobden@newcastle.edu.au (C. Oldmeadow).

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impact on AOD treatment (Davis et al., 2008). Therefore, clinical consensus guidelines for treating comorbid mental health conditions within AOD treatment settings state that clinicians should seek to identify symptoms of mental health conditions, such as depression, so these symptoms can be considered for case and treatment formulation (Marel et al., 2016). These guidelines specify that even when an individual seeking AOD treatment does not meet a formal criteria for depression, acknowledging and managing elevated symptoms should still be considered an important aspect of treatment (Marel et al., 2016).

1.3. Research examining clinician accuracy in identifying depression in AOD treatment settings is limited

Despite the importance of identifying elevated symptoms of depression within AOD treatment settings, it has been reported that mental health conditions commonly go unnoticed by AOD clinicians (Marel et al., 2016; Proudfoot et al., 2003). This is likely due to a variety of challenges within this setting, including a pressure to treat the primary condition (i.e., the substance misuse), a lack of training in detecting and treating comorbidity, and a general lack of assessment to identify these conditions (Proudfoot et al., 2003). While several brief measures have been developed to allow for simple and efficient depression screening (Moses, 2015), the adoption of these tools into a practice setting is an ongoing challenge for implementation scientists (Unutzer and Park, 2012). As signs and symptoms of mental health conditions, such as depression, are not easily identified, a lack of assessment is likely to lead to these conditions being overlooked. It is therefore important to examine how well clinicians perform this task within AOD settings.

A study by McMillan et al. performed an independent mental health assessment of several psychiatric conditions among individuals attending alcohol treatment (McMillan et al., 2008). When comparing this to charts maintained by the AOD treatment centres, they found only 31.6% of depression cases were accurately identified in the medical record. However, this study sample was restricted to those legally mandated to alcohol treatment after being convicted of driving under the influence and is therefore not representative of all individuals attending AOD treatment. The rate at which clinicians in an AOD setting can identify depressive symptoms is important as it will likely impact the course of treatment (Marel et al., 2016). To the authors' knowledge, no research has examined how well clinicians in AOD treatment centres identify depression among a general sample of clients using AOD nor the characteristics associated with accurate identification. Previous research has demonstrated that some demographic and treatment characteristics are associated with lower rates of identification within other treatment settings (Carey et al., 2015; Hobden et al., 2016). Examining whether these biases exist within an AOD setting will help identify demographic subgroups who are at greater risk of under-identification and assist with strategies to improve care for these groups.

Therefore, the aims of this research were to determine, among a sample of treatment seeking AOD outpatients, the:

1. Accuracy (sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV)) of clinician identified elevated symptoms of depression among clients seeking treatment for substance abuse as compared to a standardized self-report psychiatric screening tool; and
2. Clinician and client characteristics associated with accurate identification of elevated symptoms of depression.

2. Method

2.1. Design

The study design was a descriptive cohort study.

2.2. Setting

Two drug and alcohol outpatient clinics.

2.3. Recruitment of clinics

Convenience sampling was used to recruit clinics from two Australian states. Clinic directors were approached and provided with information about the research. One clinic was located within a large public hospital and the other was a community centre.

2.4. Eligibility and recruitment of clinicians

Clinicians were eligible if they were providing treatment at participating clinics. A member of the research team (BH) provided information about the study to clinicians during a team meeting. Clinicians were provided with an information statement and consent form to provide consent to participate.

2.5. Eligibility and recruitment of clients

Clients were eligible to participate if they were: (i) aged 18 years or older; (ii) attending a participating outpatient clinic; and (iii) proficient in English. Clinic reception staff made subjective judgements on whether the client was ineligible due to being: (i) too ill; (ii) distressed; (iii) under the influence of drugs or alcohol; or (iv) otherwise unable to provide informed consent. When presenting for their appointment at the clinic, clients were approached by clinic reception staff and verbally invited to take part in the study. Interested clients were provided with a computer tablet (iPad) and a copy of the study information statement.

2.6. Client data collection

Clients who initiated the computer tablet survey were provided with an onscreen overview of the study and then asked to provide consent to participate. For those who consented, the survey questions followed. Participants could return to complete the survey after their appointment if they were called in before completing. Clients completed the following measures:

2.6.1. Demographic and Clinical Characteristics

Clients completed questions on their gender, age, education, ethnicity, private insurance, concession card, relationship status, who they lived with and employment status. Clients reported the main substance they were seeking treatment for. Substances included: alcohol, cannabis, amphetamines, nicotine, heroin, benzodiazepines or methamphetamines. Clients also reported whether they were attending for a new episode of treatment and, if not, how far in to treatment they were. A new episode of treatment was defined as: "*This is the first time you have ever attended treatment at a drug and alcohol clinic; OR This is the first time you have attended treatment at this clinic; OR More than 3 months has passed since you last attended drug and alcohol treatment*".

2.6.2. Depression

The Patient Health Questionnaire (9 item) (PHQ-9) was used to assess symptoms of depression. The PHQ-9 has good reliability and validity in substance abusing populations (Dum et al., 2008; Hepner et al., 2009) and is sensitive to detecting mild levels of depression among those seeking treatment for substance use (Hepner et al., 2009). A cut point of 12 has demonstrated a sensitivity of 81% and specificity of 75% compared to a clinical interview for identifying depressive disorders among outpatient substance abusers (Delgadillo et al., 2011). Therefore, a score of 12 or more was used to define elevated symptoms of depression. This measure acted as the comparator for assessing sensitivity and specificity of clinician judgements.