Drug and Alcohol Dependence 147 (2015) 116–121

Contents lists available at ScienceDirect

Drug and Alcohol Dependence

journal homepage: www.elsevier.com/locate/drugalcdep

Delay to first treatment contact for alcohol use disorder

Cath Chapman[a,*], Tim Slade[a], Caroline Hunt[b], Maree Teesson[a]

[a] NHMRC Centre of Research Excellence in Mental Health and Substance Use (CREMS), National Drug and Alcohol Research Centre (NDARC), University of New South Wales, Sydney, NSW 2052, Australia
[b] School of Psychology, University of Sydney, NSW 2006, Australia

ARTICLE INFO

Article history:
Received 11 August 2014
Received in revised form
25 November 2014
Accepted 28 November 2014
Available online 10 December 2014

Keywords:
Alcohol abuse
Alcohol dependence
Treatment delay
Service utilization

ABSTRACT

Background: This study explored the patterns and correlates of time to first treatment contact among people with alcohol use disorder (AUD) in Australia. Specifically it examined the relationship between sex, birth cohort, onset of AUD symptoms, severity, comorbidity, symptom type and time to first treatment contact (treatment delay) among those with alcohol abuse and dependence in a large population sample.
Methods: Data came from the 2007 Australian National Survey of Mental Health and Wellbeing ($N = 8841$). A modified version of the World Health Organization's Composite International Diagnostic Interview was used to determine the presence and age of onset of DSM-IV AUD and other mental disorders and the age at which respondents first sought treatment for alcohol or other drug-related problems.
Results: Median time to first treatment contact for an AUD was 18 years (14 years dependence, 23 years abuse). Projected lifetime treatment rates were 78.1% for alcohol dependence and 27.5% for abuse. Those with earlier onset and from older cohorts reported longer delay and were less likely to ever seek treatment compared to those with later onset or from more recent cohorts. Those with comorbid anxiety but not mood disorder, or who reported alcohol-related role disruption or recurrent interpersonal problems were more likely to ever seek treatment and reported shorter delay compared to those who did not report these symptoms.
Conclusions: Treatment delay for alcohol use disorder in Australia is substantial. Those with earlier onset and those with comorbid mood disorder should be a target for earlier treatment.

1. Introduction

Alcohol use disorders (AUD) are common. Prevalence estimates in the United States, the United Kingdom and Australia indicate between one in four and one in six adults in the population will meet criteria for DSM-IV alcohol abuse or dependence over their lifetime (Bunting et al., 2012; Hasin et al., 2007; Teesson et al., 2010). AUD is associated with substantial negative social and health consequences and poses significant public health concern (Whiteford et al., 2013). However, despite the high prevalence and negative impact of AUD, and the existence of effective interventions (Dawson et al., 2012; Jonas et al., 2012), most people with an AUD do not seek treatment (Edlund et al., 2012; Hasin et al., 2007). Moreover those who do, typically delay seeking treatment for many years following the onset of symptoms. Large community studies have reported median delays to first treatment contact of between 6 and 18 years after the onset of problems associated with alcohol (Bruffaerts et al., 2007; Bunting et al., 2012; Kessler et al., 2001; Keyes et al., 2010b; Wang et al., 2005, 2007b). Even if it is argued that a proportion of people with AUD will recover naturally over the course of their lives, these long delays are thought to represent considerable unmet need for care (ten Have et al., 2013; Witkiewitz et al., 2014). Identification of the factors associated with delay to seek treatment is key to understanding how to reduce these delays and lessen this unmet need.

Several large community studies have examined the factors associated with delay to seek treatment for AUD over lifetime. Generally these studies have reported longer delays and lowered odds of ever seeking treatment among those with earlier onset of symptoms (Bruffaerts et al., 2007; Hingson et al., 2006; Kessler et al., 2001, 1998; Olfson et al., 1998; ten Have et al., 2013; Wang et al., 2005) and shorter delays and higher odds of ever seeking treatment among more recent cohorts (Bruffaerts et al., 2007; Kessler et al., 2001, 1998; Olfson et al., 1998; Wang et al., 2005) – although three studies have reported no effect of one or both of these variables (Borges et al., 2007; Keyes et al., 2010b; Lee et al., 2007).

* Corresponding author at: National Drug and Alcohol Research Centre, University of New South Wales, 22-32 King Street, Randwick Campus, Sydney, NSW 2052, Australia. Tel.: +61 2 93850333; fax: +61 2 9385 0222.
E-mail address: c.chapman@unsw.edu.au (C. Chapman).

http://dx.doi.org/10.1016/j.drugalcdep.2014.11.029
0376-8716/

With the exception of one study (Alvanzo et al., 2014), previous community studies have not reported sex differences in delay to seek treatment. No other predictors of treatment delay have been consistently examined or reported.

These studies are all based on large representative community surveys and are therefore a robust source of information. However, commonly these studies focused on one or two variables or examined only sociodemographic factors, thereby missing the impact of potentially important factors such as comorbidity, symptom type and severity. Both comorbidity and severity have been shown to be associated with a greater likelihood of seeking treatment among those with mental and substance use disorders (Cohen et al., 2007; Edlund et al., 2012; Ilgen et al., 2011; Wang et al., 2007a), and previous studies on treatment seeking for AUD have found particular symptoms or consequences of alcohol use to be associated increased odds of treatment seeking (Dawson et al., 2012; Naughton et al., 2013; Saunders et al., 2006). It is reasonable to expect that that these factors may also be associated with shorter treatment delays among those with an AUD.

The present study sought to address this gap by simultaneously examining the relationship between sex, birth cohort, age of onset, comorbidity, severity and symptom type and delay to first treatment contact for AUD in a large representative community sample in Australia. Australia is a country with high rates of alcohol use and dependence (Teesson et al., 2010). This is the first time data on treatment delay among those with AUD in Australia has been reported.

2. Methods

2.1. Sample

The 2007 Australian National Survey of Mental Health and Wellbeing (NSMHWB) is a nationally representative population survey with a sample size of 8841 (Slade et al., 2009). Respondents were selected at random from a stratified, multistage area probability sample of persons aged 16–85 years living in private dwellings and data were weighted according to the inverse probability of being selected. Interviews were conducted in respondent's households using a computer-assisted personal interview (CAPI). The survey received a response rate of 60%, which is commensurate with other major national surveys in mental health and substance use (Kerr et al., 2013; Kessler, 2008).

2.2. Measurement of AUD

Experience of DSM-IV alcohol abuse, dependence and other mental disorders was assessed using a modified version of the World Health Organization's Composite International Diagnostic Interview (WMH-CIDI; Kessler and Ustun, 2004), a highly structured interview with questions designed to operationalise the diagnostic criteria for each mental disorder. Respondents who reported they had consumed at least 12 alcoholic drinks in any 1 year over lifetime were asked if they had ever drunk alcohol on 3 or more days per week and/or have usually consumed 3+ drinks on the days they were drinking. AUD was assessed among respondents who answered 'yes' to this question ($n = 5520$; 64% of sample). A series of 18 questions operationalised the four alcohol abuse (major role disruption; hazardous use; recurrent legal consequences; and recurrent social or interpersonal problems) and seven alcohol dependence (tolerance; withdrawal; larger amounts/longer period of drinking; difficulty cutting down; significant time obtaining alcohol; important activities given up; and continued use despite problems) criteria. The sample for the present study comprised all respondents who met criteria for lifetime DSM-IV alcohol abuse or dependence ($n = 1847$).

2.3. Measurement of treatment delay

Respondents who completed the alcohol module of the survey were asked about the age at which they first experienced symptoms of alcohol abuse (1+ symptoms in any year) or dependence (3+ symptoms in any year) and this was defined as the age of onset of AUD. Respondents were also asked if they had ever talked to a medical doctor or other professional (psychologist, social worker, counsellor, herbalist, acupuncturist or other healing professional) about their use of alcohol or drugs and if so, how old they were the first time they did so. Treatment contact for alcohol-related problems was not differentiated from treatment contact for drug-related problems. Treatment delay was defined as the number of years between onset of AUD and first treatment contact.

2.4. Covariates

Age at onset of AUD symptoms was coded in four categories of early onset (<19 years), early average (19–20 years), late average (21–29 years), and late onset (>29 years) based on the distribution of the age of onset (Wang et al., 2005). *Birth cohort* was defined in 10 year bands based on age at interview. *Severity* was examined in terms of whether respondents met criteria for alcohol abuse only or for alcohol dependence (with or without abuse) and in terms of the total number of abuse and/or dependence symptoms endorsed (Hingson et al., 2006). *Comorbidty* with DSM-IV mood (depression, dysthymia, bipolar disorder), anxiety (panic disorder, agoraphobia, social phobia, generalised anxiety disorder, posttraumatic stress disorder) and other drug use disorders was examined in two ways; (i) whether individuals met criteria for at least one disorder in each of these three categories, and (ii) whether the onset of the comorbid disorder pre-dated the onset of AUD symptoms. In these models, people who reported onset of a comorbid disorder after first treatment contact for AUD were excluded (Keyes et al., 2010b). Each of the four abuse and seven dependence symptoms were included as dichotomous variables to examine whether endorsement of specific symptoms was related to treatment delay (Kessler et al., 2001).

2.5. Statistical analysis

Survey procedures in Stata Release 12 (StataCorp, 2012) were used for all analyses and standard errors obtained through the delete-a-group jack-knife variance technique to account for complex sampling procedures. Projected lifetime probability of treatment contact, proportion who made contact within a year and median duration of delay were obtained using Kaplan–Meier survival estimates among all respondents with an AUD, and separately for those with abuse ($n = 1500$) and with dependence with or without abuse ($n = 347$). This method of analysis allows for data to be modelled over time to include all respondents including those who had not sought treatment at the time of interview, often referred to as 'censored cases' (Hosmer, 1999). Survival time was defined as the number of years from onset of AUD to age at first treatment contact, or to age at interview, whichever came first. The relationship between various covariates and survival time was examined in logistic regression models using discrete-time survival analysis where sex, birth cohort, age at onset of AUD, number of symptoms, type of symptoms and presence of comorbid mood, anxiety and other drug use disorders were treated as covariates predicting treatment delay. Models were run separately for respondents with alcohol abuse and dependence. Individual contributions of covariates to survival time were assessed through Wald F-statistics and associated p-values and estimates of likelihood of treatment seeking in any year over lifetime are expressed as odds ratios (OR) with 95% confidence intervals, and interpreted in a similar way to hazard ratios. The effect of time in both models was approximated by including a linear term. Onset age of regular drinking (defined as 12+ drinks in any 1 year period) was included in final models to control for potential confounding on onset of AUD. Preliminary modelling ensured that models met the assumption of proportionality of hazards and where this assumption was not met models included interaction terms between covariates and time (Grambsch and Therneau, 1994).

3. Results

3.1. Lifetime probability of treatment contact and treatment delay

Fig. 1 displays Kaplan–Meier failure curves for the cumulative lifetime probability of treatment contact after onset of AUD stratified by alcohol abuse and dependence. Table 1 displays the expected lifetime treatment rates, proportion who made contact within 1 year of onset and median duration of delay among those who eventually made treatment contact. Just over one third of people with an AUD were estimated to eventually make treatment contact with a median treatment delay of 18 years among those who did. Rates of expected lifetime treatment contact were lower and estimated duration of delay longer for those with alcohol abuse compared to those with alcohol dependence (Wald $F = 12.0$, $p = 0.001$). After adjusting for the effects of sex, birth cohort, onset of AUD, number of symptoms and the presence of comorbid disorders, those with alcohol dependence were 2.4 times more likely than those with alcohol abuse to make treatment contact (OR = 2.4, 95% CI 1.4–3.9). Median treatment delays among those with alcohol abuse and dependence were 23 years and 14 years, respectively.