Guest editorial

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The importance of identifying, managing, and appropriately treating comorbidity in young people

High rates of mental and substance use disorders have consistently been reported in national youth surveys conducted around the world (Ravens-Sieberer et al., 2008; Lawrence et al., 2015; Green et al., 2005; Kessler et al., 2012). Adolescence and young adulthood can be a difficult, turbulent time for many people, with an individual's thoughts, feelings, and behaviour affected by issues of change, development, identity formation, experimentation, rebellion, and uncertainty (Marsh et al., 2013). Adolescence is also often the time during which the first presentations of psychosis and symptoms of depression and anxiety emerge (Health, 2008). Half of all lifetime mental disorders develop prior to the age of 14 years, and three-quarters by age 24 (Kessler et al., 2005) making them the leading cause of disability in young people worldwide (Erskine et al., 2015). Five of the top ten causes of disability-adjusted life-years among young people directly relate to mental health or alcohol or other drug (AOD) use disorders (Gore et al., 2011).

Young people are also at high risk of experiencing comorbidity across disorders (Baker et al., 2007; Kramer et al., 2003; Bolton et al., 2009; Slade et al., 2009; Chan et al., 2008). The most recent large-scale epidemiological survey to be conducted in the UK found that one-in-ten (10 per cent) young people aged 5-16 years had been diagnosed with a mental disorder, one in five of whom experienced more than one disorder (Green et al., 2005). In Australia, one in seven (14 per cent) of those aged 4-17 years have been found to experience a 12-month mental disorder, 30 per cent of whom experience two or more disorders (Lawrence et al., 2015). Although neither the UK survey nor the Australian survey assessed for the presence of a substance use disorder, they did find higher rates of substance use among those with mental disorders. Young people in the UK aged 11-16 years with an emotional disorder (anxiety or depression) were more likely to have ever smoked tobacco (23 vs 8 per cent), used alcohol at least once per week (13 vs 8 per cent) and ever used drugs (cannabis, inhalants, ecstasy, amphetamines, LSD, tranquilisers, cocaine, heroin; 20 vs 8 per cent) than those without emotional disorders (Green et al., 2005). Similarly, those with conduct disorders were more likely than those without to have ever smoked tobacco (34 vs 8 per cent), to be drinking alcohol at least once per week (32 vs 16 per cent), and to have used other drugs (28 vs 8 per cent). Similar patterns were observed in the most recent Australian national survey on child and adolescent mental health and well-being, which found elevated rates of alcohol, cannabis, smoking, and other drug use among young people with self-reported major depressive disorder compared to those with no mental disorders (alcohol: 65 vs 34 per cent; cannabis: 29 vs 9 per cent; smoking: 30 vs 6 per cent; other drugs: 16 vs 3 per cent) (Lawrence et al., 2015).

Not only does research indicate that there is an increased prevalence of comorbidity among young people, but there is evidence to suggest that adolescents with AOD and co-occurring mood and anxiety disorders also display greater severity of AOD use and associated problems, including reduced academic performance and social abilities, greater social disadvantage, increased disability and suicidal behaviour, and poorer treatment outcomes (Szirom et al., 2004; Grella et al., 2001; Riggs et al., 1995; Rowe et al., 2001; Lewinsohn et al., 1995; Wittchen et al., 1998; Andrews et al., 2002). Furthermore, young people with higher levels of emotional symptoms are more likely to consume alcohol at risky levels, a relationship demonstrated by Birrell et al. (2017) in this special issue of Advances in Dual Diagnosis.

Drawing on three years of data collected as part of a cluster randomised controlled trial among Australian adolescents (mean age of 13.4 years at study entry), Birrell et al. (2017) examined the relationship between trajectories of emotional symptoms and alcohol consumption at 16 years of age.

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Adolescents classified as experiencing stably high levels of emotional symptoms were more likely to have used alcohol (77 per cent) and engaged in binge drinking (51 per cent) by the age of 16 years, compared to adolescents whose emotional symptoms were moderate and stable, or increasing. Champion *et al.* (2017) similarly identified several psychosocial risk factors that were independently and consistently associated with harmful alcohol and cannabis use in their longitudinal analysis of Australian adolescents. Specifically, higher levels of hyperactivity/inattention, more days of truancy and being female were independently and consistently associated with binge drinking over time, while conduct problems was the only factor to be independently and consistently associated with cannabis use over time. As discussed by both Birrell *et al.* (2017) and Champion *et al.* (2017), universal and targeted prevention efforts are key to halting progression of harmful use and the development of primary or secondary disorders. In this issue, Pidd *et al.* (2017) also point to the need for psychosocial interventions targeted toward specific at-risk groups. A cross-sectional survey of first-year apprentices in the construction industry revealed elevated rates of substance use and psychological distress when compared to age/gender-equivalent population norms.

Given the multitude of adverse outcomes and risk factors described, it is not surprising that young people with comorbidity frequently come into contact with a diverse range of service systems, including health, social welfare, educational, and criminal justice systems (Suarez *et al.*, 2012), and present a significant challenge to service providers. What can clinicians do to address comorbidity among young people? Although evidence suggests that comorbidity is the norm rather than the exception for youth presenting to services, young people are commonly undertreated (Burgess *et al.*, 2009; McGorry, 2009). Analysis of the second Australian National Survey of Mental Health and Wellbeing revealed that although more than one-quarter of those aged between 16 and 24 years experienced a 12-month mental disorder, less than 25 percent accessed health services in a 12-month period (Reavley *et al.*, 2010).

In terms of tailoring programs and services for youth, evidence suggests that AOD and mental health conditions take place in different physical, attitudinal, psychological, and social contexts for young people, and it would be appropriate to adapt treatment accordingly (Substance Abuse and Mental Health Services Administration, 2005; American Psychiatric Association, 2006). For instance, treatment should be "youth friendly", include follow-up for missed appointments, easy to access, deliver prompt screening and assessment, have drop-in capability, be flexible, have strong links to other relevant agencies to ensure holistic treatment, and deliver interventions that recognise and cater to differences in cognitive developmental and maturational capacities (Health, 2008). Young people are not little adults (Hall *et al.*, 2016). Young people are fundamentally different from adults in ways that are likely to affect treatment utilisation, adherence, and outcomes (Schwartz *et al.*, 2005; McDermott *et al.*, 2010; Winters, 1999; Masten *et al.*, 2004) as such it would be inappropriate to simply replicate adult-focussed treatment for young people. Rather, this group requires specialised treatment, focussed on meeting developmental and engagement needs.

It may also be particularly useful to provide young clients with practical and concrete strategies relating to mental health and AOD use (particularly relapse prevention and urge control). For instance, a behavioural treatment programme consisting of stimulus control, urge control, social contracting, problem solving, relationship enhancement, anger management, and communication skills training has been shown to be particularly effective in continued abstinence in adolescents with AOD issues (Azrin *et al.*, 1994), while cognitive and behavioural therapies have shown positive outcomes for mental health disorders (Compton *et al.*, 2002; Lewinsohn *et al.*, 1995; Moak *et al.*, 2003; Farmer *et al.*, 2002). Towers (1997) argues that it is unrealistic to expect many young people to completely cease using all substances and engaging in other risk-taking behaviours (such as driving at high speeds, promiscuity), at least initially. Therefore, it is particularly important to include harm reduction strategies when working with young people.

E-health interventions may be particularly useful for this population (Gould *et al.*, 2002; Valaitis, 2005; Nicholas *et al.*, 2004; Deady *et al.*, 2013), and have been described as one of the most important revolutionary additions to modern healthcare (Jolly, 2011). E-health interventions provide the opportunity to overcome traditional barriers to treatment that often prevent young people seeking help (via flexibility, anonymity, and accessibility) (Rickwood *et al.*, 2007). Widespread internet usage by young people (Poushter, 2016; ABS, 2016), combined with research suggesting that youth feel empowered online, and feel comfortable accessing health

information and mental health treatment online (Valaitis, 2005; Gould *et al.*, 2002; Nicholas *et al.*, 2004), makes the use of e-health interventions among young people particularly encouraging. Evidence has demonstrated that e-health interventions allow for the delivery of clinically effective, cost-effective treatment, based on gold standard programs, which are highly engaging (Nicholas *et al.*, 2010; Andersson *et al.*, 2013; Cuijpers *et al.*, 2010; Grist and Cavanagh, 2013; Marks *et al.*, 2007).

Although comorbidity among young people is the norm, rather than the exception, there is a considerable lack of research examining the confidence and capacity of workers to respond to young clients with comorbidity. That which does exist suggests that there is an absence of appropriate training and support (Marel *et al.*, 2016). As such, it is essential that evidence-based education and training opportunities, including ongoing professional development activities, be available for youth workers and clinicians, in formats that enhance the uptake of evidence-based care. Accordingly, it is also critical that research continue to examine the efficacy of novel interventions and methods to most effectively engage young people with services.

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