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Abstract: At least 20% of young people aged between 14 and 25 years who live in inland Australia experience a mental health or substance use problem at any given point in time. many of these young people experience significant geographic, economic and sociocultural barriers to obtaining youth friendly health advice and care. Only a small percentage ever receives care from health professionals. The use of schools to provide mental health and substance use education and care is explored as a possible means of overcoming these barriers and better addressing the needs of youth in rural and remote locations.

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There's nothing the *@# wrong with me: Youth mental health and substance use in rural and remote Australia and the potential role of school-based interventions

[Intro]

At least 20% of young people aged between 14 and 25 years who live in inland Australia experience a mental health or substance use problem at any given point in time. Many of these young people experience significant geographic, economic and sociocultural barriers to obtaining youth-friendly health advice and care, particularly in relation to key issues of mental health and drug and alcohol use. Only a small percentage ever receives care from health professionals. The use of schools to provide mental health and substance use education and care is explored as a possible means of overcoming these barriers and better addressing the needs of rural and remotely located youth.

[body]

In Australia, approximately 11% of young people aged between 14 and 25 years reside in outer regional, remote and very remote Australia (Australian Institute of Health and Welfare (AIHW) 2007, p.6), with over 2% resident in remote and very remote locations. At least one in four of these young people is likely to experience a mental health problem during his or her school years, with depression, oppositional behaviours, externalising and conduct disorders, anxiety, stress, inability to cope, substance use, eating disorders and reports of abuse all on the increase (AIHW 2007).

Morbidity from mental illness and substance use peaks in the age range 12 to 25 years, with approximately half of all lifetime cases of mental disorders arising by age 14 and three-quarters by the age of 24 (Kessler et al. 2005). In 2004, 28.5% of Australian adolescents aged 12 to17 had used an illicit drug, and 50% had used a licit drug. The age of first use of illicit and licit substances has been falling since that time (AIHW 2007). Comorbidity in the adolescent population is rising, especially in substance users, and is currently believed to be at between 50% and 88% (Couwenbergh & van den Brink 2006; Kenny et al. 2006; Howard et al. 2007). Mortality is also of concern, with suicide accounting for 20% of all Australian deaths in the 16 to 24 age group between 2004 and 2005 (Australian Bureau of Statistics 2008). Suicide rates of young males increase with remoteness (Boyd et al. 2006).

Despite these alarming figures, fewer than 25% of young people in need of support receive it and less than 8% will reach a child and adolescent mental health service (CAMHS) (McGorry et al. 2007), with accessibility to services even more difficult in rural and remote locations. This is indicative of a widespread failure of primary and specialist services to meet the mental health needs, including addressing drug and alcohol use, of young people (Tylee et al. 2007). The significance of this shortfall is compounded by the well-recognised correlation between the duration of untreated mental health and/or substance use and poor outcomes in the long term. For the adolescents and young adults, the negative consequences of lack of treatment are evident in terms of the impact on their wellbeing, educational achievement, relationships and employment status (Degenhardt et al. 2010); however, the impact on family members, close friends, teachers and classmates should also be recognised. This situation highlights the need to prioritise early intervention (McGorry et al. 2007).

This complexity is compounded in rural and remote communities where access to appropriate services is limited by the nature and culture of services, including lack of staff, lack of funding, high staff turnover, age limits on services, payment problems, transport difficulties, concerns over confidentiality and excessive bureaucracy, negative experiences of mental health professionals and their often narrow focus (McGorry 2007; McGorry et al. 2007; Rickwood et al. 2007a). The latter is a particular problem for young people with dual diagnoses (Kenny et al. 2006). For example, expecting cessation of drug use as a precursor to receiving mental health support can be counterproductive. Furthermore, there is a consistent trend for adolescents to be less likely to seek help the more significant their symptoms (Wilson et al. 2007).

Potential interventions

There has been considerable research into ways of overcoming barriers to providing help to young people with mental health and substance use issues, although little is directly related to rural and remote locations. Rickwood (2005), Boyd et al. (2006), Boyd et al. (2007), Dixon and Lloyd (2005), Howard et al. (2007) and others have taken into account the wishes of adolescent participants in service-based surveys, and identified the potential value of school-based interventions in addressing these barriers.

This approach makes sense in many ways, given that, at least in New South Wales, students must stay at school or another educational setting until they have completed the School Certificate and reach the age of 17 (unless they get paid work). This stipulation means that schools may be well-positioned to have a significant impact on the wellbeing of adolescents experiencing mental health and substance use problems. Schools may have a particular role to play in rural and remote locations where other avenues for service provision are limited.

The remainder of this paper considers the current nature and value attached to school-based interventions, briefly reviews potential benefits and challenges in implementing such interventions, and proposes a research agenda aimed at extending our understanding of the viability of school-based mental health and substance use interventions.

School-based interventions

There are four main types of school-based interventions identifiable in the literature: universal prevention, selective school-provided student support, indicated school support, and school-based treatment.

Universal prevention

Australian schools are already heavily engaged in universal preventative initiatives which target entire student cohorts with programs designed to strengthen positive development and reduce the risks of unhealthy behaviour. Examples of these include *Mind Matters*, the national mental health promotion program that facilitates whole-school approaches to mental health promotion and provides resources, curriculum and professional development programs for teachers and parents (Franze & Paulus 2009; Wyn et al. 2000), and the *National School Drug Education program* (Soole et al. 2008). The latter is focused on preventing drug use and misuse by school students through preventive school drug education, and national protocols and initiatives to help school communities develop better ways of handling drug use. Schools also have in place policies in relation to substance possession and use, including suspension (although whether this is actually a constructive approach is a matter for debate).

The use of evidence-based substance use prevention in schools is not common (Ringwalt et al. 2008; Burrow-Sanchez et al. 2009; Schroeder & Johnson, 2009) and there is some debate over the efficacy of some preventative measures in schools. For example, students appear to prefer to receive substance use and mental health information from peers or other young adults. However, there is some evidence to suggest that peer-led interactive substance abuse prevention programs can accelerate peer influences. For students with a peer environment that supports non-use, such programs can be effective in reducing substance use; however, for students in a peer environment that supports substance use, an interactive program may have deleterious impacts (Valente et al. 2007).

Selective school-provided student support

Selective school-provided student support focuses on addressing the needs of at-risk groups (i.e. individuals who are at significant risk of mental illness and/or substance use) in an attempt to reduce their risk. These interventions traditionally involve social skills training in group settings, particularly with adolescents with emotional and behaviour difficulties. The extent to which such groups are successful is still under discussion (Evans et al. 2000). Grenard et al. (2007) suggest that one-to-one brief interventions with at-risk students are likely to be more successful than group interventions.

Indicated school support

Indicated school support provides initiatives that focus on helping students with early or mild symptoms of a disorder. Usually implemented by school psychologists, school counsellors, school guidance officers and school nurses (depending on their jurisdiction), these interventions seek to address psychosocial, mental health and/or substance use problems in both individual and group settings. *ACE* (Adolescents coping with emotions) and *Cool Kids* are two such initiatives.

School-based and integrated treatment

School-based treatment is delivered to students who have a diagnosed disorder. Such an approach is relatively uncommon in Australia but very popular in the United States, where much of the research has been undertaken. Such initiatives include the provision of screening, crisis intervention, case management, comprehensive evaluation and treatment, grief counselling and classroom behaviour modification (Zunz et al. 2005). They may take the form of interactions between the student and school counsellor or nurse (Whiston & Quinby 2009), formal and informal connections between school and community mental health services, informal connections between school and local general practitioners (Doley et al. 2008), and more comprehensive, multifaceted and integrated approaches.

Formal connections can include agency personnel located in schools, formal links to improve access and service coordination off site, formal partnerships between schools and agencies (for example, *School-Link* (Maloney & Walter 2005; Maloney et al. 2008) in New South Wales and *Mind Matters Plus* (Anderson 2005)) and contracting community providers to supply services. *Mind Matters Plus* (Anderson 2005) and *Mind Matters Plus GP* have been trialled in Australia and involve collaborations between schools, mental health agencies, family and youth services, drug and alcohol services, vocational services and school-based case management. Each initiative provides networks of care for students with high support needs in areas of mental health and wellbeing by developing and promoting sustainable partnerships between schools and general practice (Sawyer et al. 2000; Rickwood 2005). A successful informal partnership has also been implemented between a school and local GP in rural South Australia (Doley et al. 2008).

Far more common in the United States are integrated approaches that "weave … services and programs … to combat barriers to learning, personal development, parenting and teaching" and that emphasise educational achievement, whole-child development and a supportive school

climate (Holdsworth & Blanchard 2006; Price & Lear 2008; Stormshak & Dishion 2009; Cusworth Walker et al. 2010; Price et al. n.d.). These experiences suggest that the most successful interventions encompass teacher and parent education, and child cognitive–social skills training that is age appropriate. In other words, the most successful interventions concentrate on strengthening the support that surround a child and family, in addition to addressing individual characteristics (Keeley & Wiens 2008; Price & Lear 2008). There is no evidence in the literature of similar approaches operating in any Australian jurisdiction.

Challenges to school-based interventions

Manikan (2002) and Sawyer (2000) are two of many researchers who argue that schools are the most powerful places in which to both educate and treat adolescents, particularly where alternative services to assess and intervene in the lives of students with mental health and substance use problems are inadequate or unavailable. There are many advantages of school-based interventions in terms of lower costs, increased accessibility, familiarity of setting (which can also be a disadvantage), reduced stigma and the provision of support to students who would otherwise receive no intervention, and who would otherwise have a reduced capacity "to learn and benefit from school" (Roans & Hoagwood 2000, p.236; Price & Lear 2008). Improvements in retention, attendance and academic outcomes, along with increased links between families, communities and schools, may result (Adelman & Taylor 2000; Neil & Christensen 2007).

However, what of mental health difficulties arising, at least in part, as a result of the school environment itself? Differences in educational performance are not necessarily a result of a student's inherent ability to learn; rather, they may reflect the (in)ability of a given student to fit into what could arguably be seen as a constraining and disempowering school environment that appears to focus on centralised testing, and the failure of schools to adequately respond to the needs of students who are under increased socio-cultural pressures. Where school is alienating and irrelevant, students will go elsewhere in their search for a validating environment. Indeed, Blum (2005), Shochet et al. (2006) and Bond et al. (2007) note that there are strong associations between school connectedness and adolescent depressive symptoms, with lower school connectedness related to higher risk of anxiety and depression.

This suggests that any school-based preventative or intervention program will be flawed if the school focuses solely on improving national tests scores and doesn't pay attention to the social and emotional needs of students and acknowledge difference, show respect and develop a respectful school climate that facilitates healthy behaviour. In other words, school connectedness is integral to good mental health and must be facilitated to complement individual interventions (Shochet et al. 2006; Bond et al. 2007).

There are a number of other challenges to school-based interventions. Some people argue that it is inappropriate for mental health and drug and alcohol matters to be addressed at school – they are the responsibility of the family. However, this argument fails to acknowledge the role that the family may be playing in the evolution of mental health problems and drug and alcohol use.

School-based interventions may be seen to violate the rights and privacy of student and family, and the cost of service provision may be impossible to meet, given already limited education budgets. Some school principals will embrace mental health interventions, others will not.

Then there are concerns about labelling students, insufficient staff and discipline-related tensions and conflict (i.e. turf wars between health professionals and teachers), differences in functioning between education and health agencies, difficulties with unsympathetic teachers, and potential concerns over counselling students in groups. Indeed, aggressive and antisocial youth may be more likely to experience deleterious effects as a result of social skills interventions (Arnold & Hughes 1998; Dishion et al. 1999a, 1999b). Baruch (2001) argues that the value of locating psychotherapy and counselling in schools can be undermined if teachers have unrealistic expectations of what can be achieved by mental health professionals. Do schools really have the resources to address the needs of students who have longer term symptoms (Overstreet et al. 2010)?

Further, at what point does one stop treating a given disorder and consider also the need to address external factors impacting on individual wellbeing, such as family, school climate, community wellbeing and so on. That is, there is a need to move beyond medical definitions and treatment of mental disorders and substance abuse to addressing the contextual issues influencing student wellbeing (Atkins et al. 2010, p.45).

Future research prospects

This discussion has highlighted the dearth of research into school-based interventions for mental health and substance use problems in rural and remote Australia, and puts a strong case for both controlled investigation of the impact of interventions for specific problems and more generic research into the role of schools in promoting child and adolescent mental health. Such an approach suggests a number of new priorities: the use of naturalistic resources within schools to implement and sustain effective supports for student learning and emotional/behavioural health; integrated models to enhance learning and promote health; improved outcomes for all students; and strengthening active involvement of parents and carers. However, program evaluation is difficult to implement in schools because of difficulties in recruiting and retaining students (Forness & Hoagwood 1993, in Nabors & Reynolds 2000, p.187).

Further exploration of school-based interventions raises a number of research dilemmas. For example, what is the "best" research design given the variation in schools. School recruitment is problematic in that only "bad schools" may be seen as having drug problems and therefore schools may not wish to be involved. Wagner et al. (2004, p.116) identifies difficulties in "operationalising, specifying and manualising complex intervention models in ways that don't compromise clinician ability to be effective in school settings". Do programs selected for use in school settings demonstrate efficacy in the research literature or do they merely make intellectual sense (Burrow-Sanchez et al. 2009)? Would students actually utilise services provided to them in school settings? Would funding be available to fund such services within schools?

Before any of these questions can be addressed in an Australian context, there is a need to better understand the mental health and substance use services curently available in rural and remote central and secondary schools, and the services that schools identify as being important into the future. Achieving this outcome is a key research priority for the Centre for Inland Health, and expressions of interest from other organisations or researchers who would like to be engaged in this work would be welcome.

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Bio

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