Mental Health in Australian (North Queensland) Tertiary Students

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This paper summarises three studies undertaken by James Cook University psychology students investigating mental health in tertiary students. Study one found that students (N=547) reported greater levels of psychological distress than found for the general population and that scores for depression and anxiety were significantly higher among school leaver students than mature age students. The second study of 372 students found that 34.4% reported clinical levels of anxiety, 55.1% reported clinical levels of depression and there were no major differences between rural and urban students. The third study considered whether exposure to educational videos and a facilitated discussion might positively affect student attitudes towards people experiencing depression. Improved knowledge scores followed video exposure, but attitudes towards depression remained stubbornly unchanged, stereotypical and negative. Difficulties obtaining ethics approval are described as symptomatic of the stigma and institutional reluctance to face up to mental health issues that inhibits progress in the field.

This paper describes a series of research studies undertaken by honours level students from the Department of Psychology at James Cook University. The studies share a concern with mental health in university students. Since the purpose of this article is to provide a concise, integrated overview of this series of studies, statistical analyses will be reported only minimally here and a more detailed treatment will be provided in separate publications (though details are available from the authors).

STUDY 1: PSYCHOLOGICAL DISTRESS AMONG UNIVERSITY STUDENTS

Psychological distress, which is known to predict non-completion of university studies, has been conceptualised as encompassing the three elements of depression, stress, and anxiety. Elevated levels of psychological distress in university students, as compared with the general population, have been demonstrated in Australia (Stallman, 2010) and worldwide.

Mature age and school leaver university students experience different stressors (Heagney & Benson, 2017). Dill and Henley (1998) showed that while the school leavers considered social and peer factors, parental influences, accommodation issues, and performance pressures as most stressful, the mature age group considered responsibility and obligations at home, friend/family illness or injury, and impact of unpleasant classes or teachers as most stressful.

The present study aimed to compare psychological distress in university students with distress in the general population, to draw comparisons in distress levels between mature age students versus school leaver students and to consider differing sets of predictors for the two student groups.

Method

Participants. Participants were 547 undergraduate and postgraduate university students enrolled at James Cook University, Australia. The sample included a majority of females (84.6%) and mature-age students (60.5%). The majority of students were undertaking a degree in education, arts and humanities, or psychology (71.5%).

Materials. Respondents completed a questionnaire consisting of demographics, Abouserie's (1994) Academic Stress Questionnaire, an adaptation of the University Student Stress Items (Burge, 2009) and the Depression Anxiety Stress Scales (DASS-21) (Lovibond & Lovibond, 1995).

Abouserie's (1994) Academic Stress Questionnaire was included to identify academic-related risk factors for psychological distress. Examples of items include, "Studying for exams" and "Loneliness". Participants considered whether they had been personally confronted by each of the concerns or challenges over the previous week and rated each item on a Likert-type scale of 0 (Not at all stressful) to 7 (Extremely stressful).

The Academic Stress Questionnaire (ASQ), developed by Abouserie (1994), identifies a number of causes of stress covering student learning, conflict with lecturers, examinations and results and a number of situational variables including accommodation, family crisis, financial problems and conflict with peers.

An adaptation of the University Student Stress Items (Burge, 2009) was included to identify various risk factors for psychological distress. Only five of Burge's original nine sub-scales were included in this study. The five sub-scales used were Work, Intrapersonal (example "Not being able to find enough paid work") /Self, Family, Financial, and Environmental (example "Dealing with my family responsibilities") /Campus (example "Availability of parking on campus") /Administrative (example "Dealing with University Administration") /and Transition. Participants reported whether they had been personally confronted by each of the concerns or challenges over the previous week and rated each item on a Likert-type scale of 0 (Not at all stressful) to 7 (Extremely stressful).

Psychological distress was measured using the short-form version of the DASS (Depression Anxiety Stress Scale, Lovibond & Lovibond, 1995). The DASS is a psychometrically valid and reliable instrument which measures the three domains of depression (example item "I felt that life was meaningless"), anxiety (sample item "I was worried about situations in which I might panic and make a fool of myself") and stress (sample item "I found it difficult to relax"). The DASS-21 required participants to rate 21 items on a scale of 0 (Did not apply to me at all-Never) to 3 (Applied to me very much, or most of the time-Almost always) where each item applied to them over the previous week.

Procedure. An invitational email was sent to 4,312 students enrolled under the Faculty of Arts, Education and Social Sciences in an undergraduate or postgraduate degree. Participants responded using the web-based software 'Survey Monkey'. As an incentive to participate, participants were offered a prize draw to win a $100 movie gift card. A total of 676 students responded (15.7% response rate) and the final sample comprised 547 participants (12.7% response rate) who submitted fully completed questionnaires.

Results and Discussion

The overall sample of 547 participants consisted of 216 school leavers and 331 mature age students. There were 463 female and 84 male students and there were 415 full time students and 132 part time students.

Comparisons with Australian and international non-clinical normative data for the DASS-21 (Antony, Bieling, Cox, Enns, & Swinson, 1998; Crawford, Cayley, Lovibond, Wilson, & Hartley, 2011; Henry & Crawford, 2005) were undertaken. Independent group t-tests showed that the present sample of university students reported greater levels of psychological distress than the general population, with scores for depression, anxiety, and stress for the overall sample all significantly higher than for Australian and overseas samples generally (all t-test p values < .001). This finding supports the international literature showing elevated depression, anxiety and stress among university students compared to the wider non-clinical population.

The DASS-21 scores for depression and for anxiety were significantly higher among school leaver students than for mature age students (t-test p values < .05). These results support the findings of Pritchard and Wilson (2003) that school leaver students face a number of stressors at university for which they may be neither emotionally nor socially prepared. Dill and Henley's (1998) finding that mature age students report less academic-related distress was also supported.

Examination of the factors predicting psychological distress confirmed the expectation of different predictors for different student age groups. Regression analyses (details not provided here) showed that the predictors *Loneliness* and *Interpersonal difficulties* for school leaver students and *Feeling like I don't belong* for mature age students were strongly related to psychological distress. The only common predictor across both groups for all DASS-21 sub-scores was *My mental health*.

Students were asked whether any of the challenges they may have faced while studying had caused them to think about leaving their current university course. A substantial proportion of the overall sample (44.1%) had considered leaving due to their stressors. This tendency was relatively evenly represented across school leaver (47.2%) and mature age students (42%).

While the high levels of psychological distress and the associated risk of university drop out suggest that interventions are required, in Australia less than one fifth of student counsellors at campus health services have specialised training in mental health, despite being required to provide formal therapy as part of their job description (Urbis, 2007). Improving student counsellor skills may not be a sufficient response however since it is estimated that two-thirds of all tertiary students experiencing psychological distress do not seek professional assistance (Reavley & Jorm, 2010). Students consistently report problems in accessing counselling services due to embarrassment or stigma, and due to a lack of available resources (Mowbray et al., 2006).

Even simple awareness campaigns across campuses have been shown to increase student and staff knowledge of depression and anxiety disorders, reduce stigma, and prevent onset (Reavley & Jorm, 2010). Additionally, services that aim to promote student wellbeing and self-worth, rather than only targeting negative emotional affect, have been shown to reduce university attrition (Dyrbye et al., 2005).

Reifman and Dunkel-Schetter (1990) reported that frequency of social support (entailing support staff conducting scheduled group activities) related inversely to depression. Those authors also found that when students were organised into study groups that were productive, those students reported a greater sense of belonging and less loneliness compared to those in dissatisfied or unproductive study groups. This type of support may benefit students who have concerns regarding social interaction and loneliness.

The academic-related factors *Feeling overwhelmed* (school leavers) and *Need to do well (self-imposed)* (mature age) were both significant predictors of stress. Nonis, Hudson, Logan and Ford (1998) found that time management workshops aimed at improving students' perceived control over time significantly reduced stress and intention to withdraw.

Strategies which attempt to reduce attrition by addressing the separate risk factors for unique groups, and which implement regular support throughout the academic year should be considered by universities as a proactive approach to controlling attrition that occurs due to poor mental

health in students. The latest Australian tertiary institution attrition data show an average dropout rate of 20 per cent for the university sector and 28 per cent for non-university providers (Tertiary Education Quality and Standards Agency, 2017).

STUDY 2: ANXIETY AND DEPRESSION IN RURAL AND URBAN FIRST YEAR UNIVERSITY STUDENTS

Challenges for first year university students may include moving away from home, distancing oneself from family and friend support networks, finding paid work and learning to live on a limited income and adjusting to study workload demands and university expectations. These challenges can contribute significantly to student stress and amplify the risk of developing anxiety and depression (Bitsika, Sharpley & Holmes, 2010).

In comparison with urban students, students from rural backgrounds are sometimes thought to be at greater risk of experiencing higher levels of anxiety and depression. This is due to the extent of the lifestyle changes and personal adjustments they have had to make to attend university, such as moving away from home and distancing themselves from immediate access to family and support networks (Polesel, 2009).

A background rural culture may also be problematic when it comes to seeking help, particularly for mental health problems. Fuller, Edwards, Procter and Moss (2000) found that members of rural and remote communities often do not consider distress to be a mental health problem worthy of seeking help, that mental health problems are still associated with a high degree of stigma, and that identification as a self-reliant culture results in avoidance attitudes regarding seeking help.

Help-seeking barriers are also evident with students from urban areas. Common barriers include confidentiality concerns, independent preference to manage one's health problems without help from others, perceptions that others cannot help, as well as a lack of knowledge of where to access potential help sources and mental health service providers (Sheffield, Fiorenza & Sofronoff, 2004).

This study was designed to investigate the level of anxiety and depression reported by first year university students, and to consider any differences between rural and urban students in their levels of anxiety and depression.

Method

Participants. Three hundred and seventy-two first year university student (263 females, 109 males) from James Cook University, Cairns, Australia participated in the study. Participants had to be 18 years of age or older and had to be of Australian nationality or have gained Australian citizenship – international students were not included. The mean age was 23.5 years (SD = 8.2 years, range 18 to 55 years). Participants came from all faculties of the university.

Measures. The Revised Effects of University Study on Lifestyle Questionnaire (R-EUSLQ) is a 42-item, self-report scale developed by Bitsika, Sharpley and Holmes (2010). Questionnaire items relate to five university related factors: 1) Anxiety due to study demands, 2) Financial problems, 3) Psychological distress and loneliness, 4) Health concerns, and 5) Time pressures. Participants are asked to state how often they felt or behaved in particular ways during the previous two weeks. A 4-point Likert-like scale ranging between 1) "A little of the time", 2) "Some of the time", 3) "Good part of the time", or 4) "Most of the time" was used. Scores can range between 42 and 168.

Zung's (1971) Self-Rating Anxiety Scale (SAS) is a 20-item, self-report questionnaire which measures the presence and magnitude of anxiety symptoms (i.e., whether each item occurs "A little of the time", "Some of the time", "Good part of the time" or "Most of the time". Example items include "I feel afraid for no reason at all" and "I get easily upset or feel panicky". Total scores can range between 20 and 80. A cut-off score of 36 indicates levels of anxiety that are clinically significant or may prevent a person from continuing their usual work or everyday activities.

Zung's (1965) Self-Rating Depression Scale (SDS) is a 20-item, self-report questionnaire designed to measure depression symptoms, which is scored in the same way as the Zung Self-Rating Anxiety Scale. Example items include "I feel down-hearted and blue" and "I get tired for no reason". Scores above 40 indicate clinically significant levels of depression, which may interfere with continuation of daily work and activity function.

The Rural Remote and Metropolitan Areas classification guide (Australian Institute of Health and Welfare, 2004) was used to determine participant rural or urban background. Classifications include Metropolitan (capital cities and other metropolitan areas); Rural (large rural centres, small

rural centres, and other rural centres); and Remote (remote centres, and other remote centres). Student reports of where they lived prior to commencing university were used for classification.

Procedure. Ethics approval was obtained from the James Cook University Human Research Ethics Committee. Participant recruitment utilised information sheets advertised on notice boards around the university campus as well as invitations through lectures with the permission of the lecturers. Participants had the option to complete the survey online or via a hard copy.

Results

The 372 first year university student participants consisted of 263 females (70.7%) and 109 males (29.3%) who were aged between 18 and 55 years of age ($M = 23.5$ years). For 73.9% of students ($n = 275$) this was their first year at university. Student participants came from various university faculties. Table 1 shows student origin according to the Rural Remote and Metropolitan Areas classification guide. Table 2 shows descriptive data for the R-EUSLQ, SAS, and SDS responses.

Table 1: Rural, Remote, and Metropolitan Areas Coding of Student Participants

Classification	n	Per cent
Metropolitan zone Capital Cities	23	6.2
Rural 1 Large Rural Centres (population 25,000–99,999)	183	49.2
Rural 2 Small Rural Centres (population 10,000–24,999)	71	19.1
Rural 3 (population < 10,000)	40	10.8
Remote 1(population > 5,000)	16	4.3
Remote 2(population < 5,000)	39	10.5

Table 2: Student Mean Scores in the R-EUSLQ, SAS and SDS

Measure	n	M	SD
Revised Effects of University Study on Lifestyle Questionnaire R-EUSLQ	372	93.08	23.6
Self-Rating Anxiety Scale SAS	372	35.10	8.0
Self-Rating Depression Scale SDS	372	41.20	6.4

There was no significant difference in R-EUSLQ scores between rural students (M = 95.36, SD = 23.6) and urban students (M = 91.63, SD = 23.5); t (370) = 1.49, p = 0.14 (two-tailed), η^2 = 0.006. No significant difference in anxiety scores was found between rural students (M = 36.10, SD = 8.69) and urban students (M = 34.47, SD = 7.5); t (370) = 1.93, p = 0.54 (two-tailed) η^2 = 0.009. There was a significant difference between rural students (M = 42.18, SD = 6.8) and urban students on the depression scale though the difference was very small (M = 40.58, SD = 6.1); t (370) = 2.35, p = 0.02 (two-tailed) η^2 = 0.014, mean difference = 1.60, 95% CI: 0.266 to 2.93)

Absolute levels of anxiety and depression were high across both groups. Around a third of the entire student sample (34.4%, n = 128) met clinical levels of anxiety (SAS score above 36) and a little over half (55.1%, n = 205) of the whole sample of students met clinical levels for depression (SDS score above 40). Chi-Square analyses indicated no relationship between rural and urban upbringing and clinical levels of anxiety (X^2 (1, n = 372) = 0.84, p = 0.35) and no relationship between rural and urban upbringing and clinical levels of depression (X^2 (1, n = 372) = 0.76, p = 0.38).

Discussion

The most notable finding was that the absolute levels of reported anxiety and depression, in this sample of university students, regardless of residential origin, were remarkably high. This is clearly a cause for concern with around a third of the sample reporting clinical levels of anxiety and over half of the sample reporting clinical levels of depression. In spite of an anticipation that students from a rural and remote background might report greater levels of anxiety and depression than their urban peers, the results showed very similar scores between the groups.

Since the development of mental illness in students has a high association with poor academic performance, attrition, and deferral rates (Polesel, 2009), universities have an obvious interest in the present findings. Coates (2005) has argued that student engagement and success is a shared responsibility between students and the tertiary institution and teaching staff who facilitate the necessary conditions, opportunities and expectations for positive student engagement to occur. Apart from the proximal effects of mental illness on indices of university success, the experience of mental illness in students contributes to broader societal challenges including suicide rates and

the overall disease burden. University efforts towards mental illness prevention thus serve both university self-interest and the broader common good.

STUDY 3: RURAL YOUTH ATTITUDES TOWARD DEPRESSION

Depression in rural and remote Australia is a cause for concern due to community attitudes that discourage help seeking together with high suicide rates in rural youth. A lack of awareness and understanding of depression (Jorm, Christensen & Griffiths, 2004) together with great stigma toward depression (Fuller, Edwards, Procter & Moss, 2000) creates barriers to effective treatment.

The mental health literacy of the general population as well as of those diagnosed with a depressive disorder has been shown to be poor. Only half of the participants in a study by Goldney, Fisher and Wilson (2001) were able to correctly identify depression in a vignette and less than 10% said a psychiatrist or a psychologist would be a helpful person to approach. Young people had little understanding or belief that treatments were available and could help them (Wright et al., 2005). When questioned regarding preferred contacts, people overwhelmingly indicated that when experiencing depression they would seek help foremost from friends and family (Burke, Kerr & McKeon, 2008). Stigma and a culture of self-reliance have been identified as barriers to seeking help for mental illness (Fuller et al., 2000). Boyd et al. (2007) showed that rural adolescents believed that talking about emotional problems demonstrated to others a weakness in character, that you cannot be weak in the country and that to be emotional is to be weak. Many male secondary students were found to hold negative views toward mental health services. Concerns included issues of confidentiality, lack of respect and the idea that by seeking professional help they were confirming that they had something wrong with them (Burke, Kerr & McKeon, 2008).

Depression has been shown to be a major risk factor for suicide (Caldwell, Jorm & Dear, 2004; Gair & Camilleri, 2003). In Australia, an average of eight Australians take their own lives every day, suicide is the leading cause of death for males and females aged between 15 and 44, men account for 75 per cent of deaths by suicide (Australian Bureau of Statistics, 2016) and one in 40 young people will attempt suicide (Lawrence et al., 2015). The problem is particularly marked in rural communities where male farmers die by suicide at rates significantly higher than the general population and non-farming rural males (Mendoza & Rosenberg, 2010).

The national depression initiative, beyondblue, was established in Australia in October 2000. It was initially focused on raising awareness of depression and reducing the associated stigma. Relatively early evaluation showed increased beliefs in the efficacy of interventions such as psychological treatment, counselling, and antidepressants as well as a decreased belief that "going it alone" was the best option (Jorm, Christensen & Griffiths, 2005). It might be that a school-based program operating along similar lines to the beyondblue approach could offer complementary results. Barrett, Farrell, Ollendick and Dadds (2006) suggested that universal prevention strategies, which target entire cohorts, rather than only those at risk or groups already suffering from depression, can be conducted within a school context where high numbers of young people can be reached and can reduce levels of stigmatisation.

Fora conducted with young people have shown they believe that more mental health information should be provided in schools (Boyd et al. 2007; Quine et al., 2003). The current project was conducted to pilot possible methods for assisting youth in rural areas with mental health literacy (originally defined by Jorm et al. (1997, p. 396) as "knowledge and beliefs about mental disorders which aid their recognition, management or prevention"). It was designed to assess and develop attitudes of young people in rural areas towards depression through an educational intervention package. The hope was that students' knowledge of depression would increase and that more positive attitudes towards depression would result.

Method

Design. A pre-post design was used where knowledge and attitudes were measured before and after the provision of educational materials (a slideshow and videos) in a group discussion format. Discussion was guided by two facilitators. Ethics approval was obtained from the James Cook University Human Research Ethics Committee and from Catholic Education.

Participants. Two youth samples, one consisting of high school students and the second consisting of young university students, participated in the project. The year ten high school students consisted of 25 females and 2 males with an average age of 15.0 years from a small Catholic high school in a North Queensland rural town. This group participated in one session with two teachers present as well as two facilitators. The school had a co-educational day school as well as a female only boarding school, which may have accounted for some of the difference in gender balance. This problem was further accentuated by many male students forgetting

permission forms and therefore being unable to participate in the study. The second group consisted of 14 university students (3 males and 11 females) from James Cook University. The average age of this group was 18.3 years and all were aged twenty or younger.

Measures. Attitudes towards depression were measured using a shortened and adapted version of the "Young people's stigmatizing attitudes towards peers with mental disorders" scale (Jorm & Wright, 2008) which addressed social distancing or the extent to which respondents would isolate themselves from those with depression, the extent to which depression was viewed as a weakness rather than an illness and how the attitudes of others were perceived. A short vignette illustrating depression experienced by "15 year old John", as used by Jorm & Wright (2008) was presented, following which respondents were asked a series of questions. Example items include "I believe John's problem is a sign of personal weakness" and "I would be happy to develop a close friendship with John". Responses were provided using a 5-point Likert-like scale from "Strongly agree" to "Strongly disagree". Students also answered a number of questions related to anonymity, transport logistics, masculinity, rural self-reliance and knowledge about depression.

Intervention. The intervention, which lasted approximately 25 minutes, was designed to provide participants with information about symptoms and experiences of depression and to allow an interactive experience whereby participants could freely ask questions and offer their opinions. The information session consisted of a description of the symptoms of depression in young people using a slide show as well as three short informative videos sourced from beyondblue outlining aspects of depression in young people. Participants were also provided with two beyondblue fact sheets describing the causes and symptoms of youth depression and how young people can assist friends who are having trouble with mental illness.

Results & Discussion

Quantitative analyses (before-after comparisons using Wilcoxon signed ranks tests) showed that knowledge about depression improved following the intervention program for the school students (Z=-3.218, p = .001) but no significant change was demonstrated for the university students (Z=-1.342, p =.180). Attitudes towards depression (e.g., "Depression is a weakness") did not improve significantly for the school-aged group or for the university group.

Participants from both groups seemed relatively well informed about depression and understood that depression was more than a simple sadness and can be quite prolonged. Both groups identified withdrawal from life and difficulty dealing with everyday life as symptomatic and both groups indicated that they felt mental illness was a serious health matter and not just an excuse for antisocial behaviour. There was some uncertainty regarding the cause of depression, with some students suggesting one must experience significant adversity to suffer from depression whilst others thought that depression is caused exclusively by a chemical imbalance in the brain.

Qualitative observations from the discussion groups showed that while many of the students suggested that they would seek help first from friends and family, it was generally recognised that "friends didn't really know how to help". One participant suggested that seeking help from friends can "backfire" as "they can use it against you by sharing private worries and concerns with classmates or others". It was further suggested that there was not much help available in rural centres and that the free help was "crap" ("It's just aimed at addicts and street kids, I really just wanted to get out of there").

The university students were concerned about the expenses involved with help seeking with many suggesting they would most prefer to see a psychologist should they require help but that they would not be able to afford to do so. One participant lamented that she could not afford to go and see a doctor about a cough so there was no possible way she could afford to see a psychologist (this suggests ignorance of free services available for both medical and psychological help). One participant praised the national telephone counselling service Kids helpline, saying that not only was she able to "speak to a wonderful counsellor" but "the service was free and very easy to utilise". Many of the older students believed that there should be more done in schools regarding depression in order to help students understand both what is happening to them (or their friends) and how to get help for it. One female student, who had a male friend who had committed suicide, suggested that families could go into schools to talk about their experiences because "families are brutalised by it (suicide)".

A commonly shared belief across both groups was that within their own communities, going to see a psychologist or similar mental health professional, demonstrated a weakness and inability to deal with life in the eyes of others. Students suggested that they would not like "everyone" to know that they had sought help for depression for this reason and that within small communities it was "too hard to keep things secret".

There was a very strong belief amongst both groups that males have to behave in a certain way when it comes to dealing with emotions and that they cannot allow themselves to appear too weak (expressed by one as "Drink a cup of concrete and harden up"). It was a commonly shared belief that masculinity was linked to self-medicating for depression, in particular via excess consumption of alcohol.

Although many years of campaigning by beyondblue has attempted to decrease ignorance and increase acceptance of depression as a medical disorder, the (dispiriting) present results show that attitudes towards depression continue to mirror those reported well over a decade ago and that much more remains to be done. It seemed relatively easy to change knowledge levels in these samples of young people but attitudes proved stubbornly resistant to change.

This study suffers from the restricted sample used however there is a backstory to explain this. Although the planned study received university ethics approval and strong support from an education department school principal, the state education department subsequently refused approval. Fortunately for the student's thesis, Catholic Education showed no such reticence and did cooperate which meant that the project was able to proceed, albeit with a reduced and biased sample (too few males). The education department decision was appealed to the then Minister of Education without success. This is seen as symptomatic of the stigma and institutional reluctance to face up to mental health issues that inhibits progress in the field.

OVERVIEW

In the context of an average dropout rate of 20 per cent for the university sector (Tertiary Education Quality and Standards Agency, 2017), Study 1 showed that James Cook University university students reported greater levels of psychological distress than the general population and that nearly half of the overall sample had considered leaving their university course due to their stressors. Study 2 showed that while there were no major differences between urban and rural students, absolute levels of anxiety and depression were high across both groups with around a third of the entire student sample meeting clinical levels of anxiety and a little over half of the whole sample of students meeting clinical levels for depression. Study 3 showed that an intervention for young people was able to improve knowledge scores but attitudes towards depression remained stubbornly unchanged, stereotypical and negative.

A recent systematic review and meta-analysis of attempts to improve mental health in health professional education (Lo et al., 2017), found that psychoeducational approaches to the problem were ineffective or counterproductive, while other approaches including cognitive behavioural approaches, mindfulness and relaxation training were found to have some benefits. Another systematic review and meta-analysis (Leavey & Hawkins, 2017) showed that cognitive behavioural therapy was effective for suicidal ideation and behaviour. McIntosh and Hawkins (2017, in preparation) reviewed 37 systematic reviews and meta-analyses of school-based mental health prevention programs involving at least 453,674 participants and their meta-analysis found that these programs were effective overall. The most positive results came from studies that reported school-based interventions on anxiety and depression and good quality studies that focused on the promotion of mental health rather than the prevention of mental health illness. While acknowledging the finding from Harvey, Szalkowicz, and Luckman (2017) that "common reasons cited for withdrawal are personal, including physical or mental health issues" (p. 6), a recent government report *Improving retention, completion and success in higher education (*Department of Education and Training, June 2017), did not even mention mental health in its list of key interventions relating to academic success.

Young people hold negative attitudes about mental health and show an unwillingness to seek professional help. This, together with a failure of institutions to sufficiently recognise or address mental health issues, make mental health in university students a wicked problem and mean that the provision of institutional assistance needs to be supplemented with innovative strategies to encourage students to take up any offered resources.

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