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To cite this article: Helen M. Stallman (2011) Embedding resilience within the tertiary curriculum: a feasibility study, Higher Education Research & Development, 30:2, 121-133, DOI: [10.1080/07294360.2010.509763](https://doi.org/10.1080/07294360.2010.509763)

To link to this article: <http://dx.doi.org/10.1080/07294360.2010.509763>



Published online: 16 Mar 2011.



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Embedding resilience within the tertiary curriculum: a feasibility study

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(Received 13 December 2009; final version received 27 June 2010)

Mental health problems can significantly impact on the ability of university students to both meet their individual potential and contribute positively within society. This study evaluates the feasibility of embedding a strength-focused resilience-building seminar within a university curriculum. Participants were 247 students enrolled in an undergraduate psychology subject. The *Staying on Track* seminar, consisting of six building blocks for resilience, was delivered within a normal lecture period. Students completed post-measures on satisfaction and usefulness, as well as follow-up reflective journals entries noting changes made as a result of seminar participation. The seminar received high scores for satisfaction and 90% of students reported at least one of the six building blocks as being useful to them. Satisfaction also translated into self-reported positive behaviour change for many students. Implications for the role of curriculum-based resilience-building programs within universities are discussed.

Keywords: college students; curriculum; mental health; resilience; university students

Introduction

Internationally, governments recognize the wide-ranging importance of universities in adding to the knowledge and skill base of their country, attracting international expertise and investment and having a key role in the social and cultural aspects of society (Boulton & Lucas, 2008). The objective of tertiary learning is to prepare students to make a positive contribution within society, provide leadership and be competent individuals within their chosen profession. This is often articulated within university graduate capabilities that guide the development of individual subject outcomes (e.g. Queensland University of Technology, 2009). These guidelines and their implementation aim to promote student success in the wider community following graduation. To effectively achieve this, Bowden and Marton (1998) contend that, given our rapidly changing society, students must develop the ability to handle future situations that are potentially unlike those they have previously encountered. Learning, therefore, endeavours to enhance the capacity of the student to see possibilities and broaden their focus. To cope effectively in a changing world and also think creatively and innovatively it is therefore imperative that students are resilient.

Resilience refers to the capacity of students to adapt and grow in response to adverse events that may occur either at university, during their career or in life in

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general. In the context of learning and functioning at a high level in an ever-changing world, resilience enables students to sustain motivation and focus when faced with difficult tasks. It also provides them with the ability to cope with difficult emotions (such as anxiety and frustration) that can impair performance (Claxton, 2002). Resilience is not an innate trait, but involves ways of thinking and acting that can be learnt and developed in all students. The American Psychological Association (2010) summarises 10 ways to build resilience. These include: making connections, avoiding seeing crises as insurmountable problems, accepting that change is a part of living, moving toward your goals, taking decisive actions, looking for opportunities for self-discovery, nurturing a positive view of yourself, keeping things in perspective, maintaining a hopeful outlook and taking care of yourself.

Stress and university students

Resilience is an important competency for university students because it underpins the capacity of students to manage both their academic demands and the additional stressors of balancing of study with work and life. More than half of all university students report levels of stress in the clinical range, that is levels indicative of mental health problems (Stallman & Hurst, in press). International students often contend with further adjustment stressors, including isolation, language and cultural differences. The high prevalence rates of psychological distress and mental health problems found in university students (Eisenberg, Gollust, Golberstein, & Hefner, 2007; Song et al., 2008; Stallman, 2010; Surtees, Wainwright, & Pharoah, 2000) might be accounted for to some extent by high levels of stress, putting students at risk for both short- and long-term consequences, including disruption of studies and failure to reach their potential, respectively.

While stress is important in providing the impetus for achievement, excessive stress can alter brain structure functioning and disrupt the cognitive processes involved in memory and learning (Kim & Diamond, 2002). Stress can affect the pre-frontal cortex, which involves the regulation and execution of thought, emotion and behaviours, such as judgment, flexibility and attention (Arnsten & Robbins, 2002). Furthermore, the pre-frontal cortex inhibits interference from distracting stimuli, both internal and external, enabling focus and concentration. These processes are integral to learning at a tertiary level and performing at a high standard post-graduation, highlighting the importance of coping skills in this population.

Access to services

Traditionally, mental health services within universities have been delivered through face-to-face counselling or group workshops. More recently, online counselling services are being developed and evaluated as a way of reaching greater numbers of students in need (e.g. Richards, 2009). There is mounting pressure on counselling services due to increasing numbers of students with severe psychological problems, inadequate referral pathways and increasing crisis management (Gallagher, 2007; Stallman, 2010). On average, around 10% of students access face-to-face counselling services each year. More (32%), however, have interactions with counselling staff in other contexts, such as workshops, orientation or class presentations (Gallagher, 2009). Whilst some universities have depression and/or anxiety screening days at their institutions (Gallagher, 2007), the high prevalence rates of depression and anxiety

symptoms in this population may result in identified students never receiving appropriate treatment. By and large, and analogous to the general population (Andrews, Henderson, & Hall, 2001), the majority of students with high levels of psychological distress or mental health problems do not access professional services (Eisenberg, 2007; Stallman, 2010). Those that do may often receive inadequate treatment, for example students, on average, only having six sessions at counselling services (Gallagher, 2009). Reasons for not seeking treatment for psychological problems include denying the existence of a problem, perceiving problems as self-limiting and therefore not serious, prior negative help-seeking experiences and believing treatment would not be helpful (Andrews, Henderson, & Hall, 2001; Hulka, Kupper, & Cassel, 1972; Vanheusdena et al., 2008). Other barriers that may be particularly relevant for students include a lack of awareness of services and competing demands.

Population approach to prevention

With elevated levels of distress affecting up to 83.9% of university students (Stallman, 2010) and relatively few students accessing services, there is compelling evidence for the need to find cost-effective universal approaches to enhance the resilience of tertiary students, with the aim of preventing mental health problems and promoting optimal student wellbeing. For a population approach to be effective, it must be acceptable to students and have broad applicability. For example, such an approach should use relevant exemplars and offer options and choices so that students can make choices consistent with their own values and goals (Prinz & Sanders, 2007). Program design features are important considerations in working towards a population approach to the prevention of mental health problems. Prinz and Sanders outline the key program design components that are potential determinants of population effects:

- (1) Minimally sufficient programming: Applying a 'one size fits all' approach to intervention can result in an inefficient use of limited resources and place unnecessary demands on already stressed students. It is important that prevention programs are attuned to the needs of the population and provide the minimally sufficient intervention to achieve the desired outcomes. Of course, the needs of students vary and this highlights the importance of having a multi-level approach to mental health promotion and treatment in universities.
- (2) Self-regulatory framework: A self-regulatory framework (Bandura, 1989, 1995; Karoly, 1993) encourages students to identify their own goals and choose from a range of strategies that will work best for them to achieve those goals. Universities typically provide services within this framework, offering a suite of options to meet the personal and academic needs of students. These enable students to access information, support and guidance as needed and to address the issues that they identify as important.
- (3) Avoidance of single disciplinary ownership: In order to obtain a broad reach, programs need to be able to be delivered by practitioners from a range of disciplines who are involved in student wellbeing.
- (4) Address multiple goals and outcomes concurrently: Interventions need to be practical and address multiple risk and protective factors concurrently in order to promote wellbeing across the student population. This enables students to use strategies to address multiple goals and lead to positive outcomes for a variety of concerns.

- (5) Quality of training and resource materials: Interventions need to include cost-effective training that provides sufficient instruction and support for practitioners across disciplines to be able to implement the intervention well enough to result in positive gains for students. In order to do this, program manuals need to be easy to use and consistent with the underlying principles of the intervention.

Whilst resilience-building programs have been successfully incorporated into school curriculums to prevent depression in adolescents (e.g. Gillham et al., 2007; Quayle, Dziurawiec, Roberts, Kane, & Ebsworthy, 2001), there has been limited attention given to embedding resilience skills training in the tertiary education curriculum.

***Staying on Track* seminar**

The *Staying on Track* seminar (Stallman, 2009a) is a 90-minute, strengths-based, resilience-building seminar designed to increase resilience literacy, resilience and help-seeking when needed in university students. The seminar introduces students to six building blocks of resilience: three that help students buffer against stress (Realistic Expectations, Balance and Connectedness) and three that help students manage stressful situations (Positive Self-talk, Stress Management and Taking Action). These building blocks incorporate known components of resilience (see American Psychological Association [2010] for a summary) presented in a way that is relevant to university students. The program includes didactic teaching, video segments and large group discussions. Seminar participants receive a copy of the *Staying on Track Tip Sheet*, which summarizes key points raised in the seminar, as well as providing contact numbers for the university counselling service. The seminar format was designed for large groups of students and is delivered by trained facilitators. Materials include a facilitator's manual, which includes a treatment integrity checklist to monitor treatment adherence, and a DVD, which includes a copy of the Powerpoint presentation and electronic copies of the Tip Sheet, sample follow-up emails and the program evaluation questionnaire.

An attempt to evaluate the efficacy of the seminar using a randomized control design highlighted a major problem with optional university workshops – low participation rates (Barnard, 2009). Similarly, when the seminar was heavily promoted within a law faculty but, again, optional for students to attend, participation rates were still low (Stallman, 2009b). However, the evaluation results were promising, with very high ratings for satisfaction and usefulness of the seminar. These findings suggest that optional workshops are well received by students but are limited in their capacity as a universal intervention because of low uptake by students.

Research aims

The aim of this study was to evaluate the feasibility of embedding a resilience promotion intervention, *Staying on Track*, within a tertiary curriculum. Feasibility was assessed firstly by student satisfaction with the intervention. As non-active skills-training interventions can frequently have high satisfaction levels without translating into behaviour change (e.g. Starker, 1986), in addition to perceptions of satisfaction, this study also explored the effectiveness of the intervention in bringing about behaviour changes in students.

Methods

Participants

Participants were 247 university students enrolled in a compulsory first-year undergraduate psychology subject, Counselling Theory and Practice. The majority of participants were female (86.1%), full-time (97.5%) and domestic students (93.1%). Student ages ranged from 17 to 52 years ($M = 21.93$, $SD = 5.83$).

Measures

Satisfaction

Students were asked to rate four components (content, facilitator, visual aids and the seminar tip sheet) and their overall satisfaction of the seminar using a 5-point Likert-type scale ranging from poor (1) to excellent (5). The total satisfaction score is the sum of the five items with a range of 5 to 25. The scale had good internal consistency ($\alpha = .84$).

Usefulness

The usefulness of the seminar was measured with four questions on a 5-point Likert-type scale ranging from strongly disagree (1) to strongly agree (5). These were: (1) 'Participation in this seminar was valuable to me', (2) 'The information presented was relevant to my needs and interests', (3) 'I gained sufficient knowledge to implement the strategies discussed' and (4) 'I would recommend this seminar to others'. The items were summed to form a total score with a minimum of 4 and a maximum of 20. The scale had good internal consistency ($\alpha = .88$). Students were also asked to identify which resilience-building blocks they found helpful. In a free text area they were asked to nominate which aspects of the seminar were most useful to them. These responses were coded according to the resilience categories they were mentioned under. Finally, students were asked to describe one thing they planned to do differently as a result of this seminar. Again, these responses were coded according to the resilience-building block they were mentioned within.

Personal reflective journal

Four questions were used to assess the impact of the intervention on student behaviour. To be able to make changes in behaviour, students need to: (1) believe that the material is relevant to them, (2) be able to recall the material later and (3) implement changes. The first question assessed recall of information from the seminar, specifically what they had written at the time as being the most useful parts of the seminar. The second question assessed any differences between what seemed important at the time of the seminar and at the time the journal entry was completed. The third question asked students to recall what they planned to do differently and the final question asked about changes students have made since the seminar.

Procedure

This study received ethics exemption from the Queensland University of Technology ethics committee. The *Staying on Track* seminar was delivered within the usual

lecture timeslot for the subject in the second week of semester. Following the seminar, students completed the program evaluation questionnaire. Weekly journal entries were an optional learning activity within the subject to develop the ability of students to self-reflect. Between one and two weeks following the seminar, students completed their personal reflection online journal for the subject, reflecting on the personal significance of the seminar.

Results

Satisfaction

All satisfaction items were negatively skewed with the mode for each item being 4 (out of a possible 5), indicating high levels of student satisfaction. Almost all students (93.5%) rated the overall satisfaction of the seminar item as 3 or higher, with the total satisfaction score having a mean of 18.89 ($SD = 3.28$).

Content usefulness

Of students, 90% endorsed at least one of the six building blocks as being useful. Those that endorsed none may be a combination of students who inadvertently did not complete the second page of the double-sided evaluation questionnaire and students who genuinely did not find any aspects of the seminar useful. On average, students found three building blocks of the seminar useful ($M = 3.12$, $SD = 1.64$). The percentage of students who endorsed each building block was: Balance (67.3%), Managing Stress (65.9%), Realistic Expectations (57.4%), Positive Self-talk (48.0%), Taking Action (37.7%) and Connectedness (35.4%). This pattern of results is consistent with what students qualitatively reported as being the most useful aspect of the seminar, with the exception that Realistic Expectations was noted most frequently.

Planning for change

In response to being asked to describe one thing they would do differently following the seminar, 83.4% of students nominated at least one plan. Some students included plans from more than one category. The most commonly reported plans related to building more Balance in their lives (31.1%), Managing Stress (25.2%), increasing Positive Self-Talk (23.8%) and developing more Realistic Expectations (20.4%).

Group differences

There were no significant differences in overall seminar satisfaction, usefulness or plans to make changes based on any of the demographic variables.

Impact of the seminar

Journal reflections were completed by 110 students, one to two weeks following the seminar. Overall, 81.8% of students who completed the reflective journal reported implementing strategies presented in the seminar, 6.4% had made a plan to use them in the near future, 3.6% had a plan to use them when they felt stressed, 4.6% reported that things were already going well for them and that they didn't need additional strategies and 3.6% reported not using the strategies.

Affirmation of existing strengths

For many students, the minimally sufficient intervention may simply involve the reinforcement of known resilience strategies. This is exemplified by comments from students reporting that they were already aware of the strategies in the seminar but found it useful to be reminded of them:

Attending this week's lecture was a very positive experience as it reassured me that some of the steps I've already been taking to change these thoughts (such as avoiding 'shoulds') are the right way to go. It also reminded me that I can still have a life while I'm studying and that uni results are not the 'be all and end all'. (ID 18)

Changes have been things that coincided with the seminar – not as a consequence of the seminar. But the seminar really cemented that it was so important for our sanity! (ID 61)

A lot of the knowledge and skills that were being communicated was quite self-explanatory and dare I say 'obvious' in a way; but it took someone actually telling me for the message to sink in. (ID 67)

My personal experience tells me that people only recall that which was relevant to their own life and may need a reminder in order to keep implementing changes they have decided to make. (ID 73)

The seminar highlighted strategies they had already identified as personally relevant and useful in working towards their own goals, hence reinforcing self-regulation.

Normalising experiences of being a student

Another aspect of the seminar highlighted by some students was normalizing the experience of and reactions to stress. The following quote also highlights the focus in the seminar on building upon existing student strengths:

I found the most useful aspects for me were being reminded that although I feel stressed, I am not alone in experiencing these feelings. I was also reminded that I have successfully used resilience strategies in the past, and I must start to use them again. (ID 34)

Increased self-efficacy

Many students noted an increase in knowledge, understanding, awareness and insight as a result of attending the seminar. Also highlighted was an increase in self-efficacy, an appreciation of not being told what to do and feeling more confident and competent to independently make changes in their own lives:

I think that arming people with information is a vital tool in allowing people to make informed decisions but also to allow people to grow or feel that they can control or change their situation. (ID 56)

... obtain a sense of being able to do something about their problem and feeling empowered about it. (ID 58)

I learnt about my situation and understand what I need to change to achieve my goal. (ID 64)

It has shown me that an individual can try and make a better future for themselves. (ID 78)

These provide evidence of the seminar helping students to see problems as solvable, move towards goals, be able to make decisions, keep things in perspective and maintain a hopeful outlook.

Recall of strategies

The vast majority of students were able to recall what they wrote at the time of the seminar as the most useful part of the seminar for them. The strategy that was cited as being the most useful was ‘being present/living in the moment/ mindfulness’, which was part of the Realistic Expectations and Managing Stress building blocks. All building blocks were represented in what students remember finding useful:

[At the time] I said it was pretty much all useful, but the things I have found most useful are being present, and keeping balance in my life. (ID 8)

Some could not recall what they wrote at the time, but were able to identify parts of the seminar that were significant at the time of the reflection:

Honestly I have no idea exactly what answer I wrote to that particular question. So I’m guessing there is a difference between what seemed useful then and what seems useful now. ... I’m trying to stop myself from sacrificing certain things – like going to the gym, or meeting up with friends (because I feel like I don’t have the time) by reminding myself that it’s all about the balance and that I’ll feel better for it in the long run. (ID 10)

A few students reported that they didn’t find the seminar useful at the time, but had indeed taken on and applied strategies discussed in the seminar:

I took more away from Tuesday than I did at the time – I thought I wouldn’t use much from it, as usually I say to myself that I will make a change, then forget about it straight away. ... [Now] when I get angry about something that I can’t change, I stop and think about how I can react. It’s quite difficult, but it has really helped actually. (ID 5)

Making changes

The self-regulatory framework involves students choosing and implementing strategies that help them achieve their own specific goals. Most students were able to recall what they planned to do differently following the seminar and had started making changes in their lives:

I tend to get anxious/ nervous quite a bit, so being present and focusing on the current moment has really helped me. I remind myself that when I am just sitting in my car or driving there is really nothing to be so nervous about. And this has definitely helped me. (ID 8)

Since the seminar I have made a real conscious effort to stay in the moment, by taking in my surroundings, being alert and aware of all the beautiful things that are happening right now. When faced with a problem I have found it much easier to deal with in the absence of all those nonexistent ‘potential problems’ swimming around in my head. (ID 92)

I have tried to address issues when they surface instead of letting them build up and as a result I feel much more relaxed. It’s a lot harder to live in the here and now than what I thought it would be. (ID 38)

I am monitoring what I eat and not dieting but eating positively and healthily. (ID 54)

In order to not be stressed at the end of the semester, I have made a study plan of what I need to focus on and complete each day. This is taking small steps to achieve more satisfying results. I also think about small situations differently outside of university – like when the traffic is bad, there's nothing I can do about it. If I'm late, I'm late. Learn from it and move on. Do something to avoid this the next day. (ID 44)

I'm trying to stop regretting the decisions I make and stop thinking back to what I could have done better and think towards the present and future and know how to [do] it better for next time. (ID 37)

I have consciously been trying to (when in a confrontation with someone) use 'I' rather than 'you' sentences. (ID 42)

Some students reported that they had not needed to use the strategies yet, but that they planned to use them when stressful situations arose:

I haven't been in many stressful situations of late but when they do arise I'm sure I will try to handle them differently. (ID 36)

Small changes ... big differences

Most students learned, either through the seminar or from putting the strategies into practice, that those small changes can have positive impact on their wellbeing, others dismissed any changes unless they were momentous:

I have tried to implement this more in situations. ... No, no drastic changes. (ID 51)

Others were able to identify that small changes lead to more significant positive effects in their lives:

Although they may be small, it is the small changes that will eventually help to make big changes. (ID 107)

Most students who implemented the strategies discussed in the seminar reported improvements in their sense of personal wellbeing and ability to cope:

The issue was resolved immediately and I felt REALLY good about how I handled it! Definitely a new favourite skill of mine! (ID 42)

One technique I was taught to use was to 'live more in the moment'. This has drastically improved my tranquillity in life because I used to be so focused on what I had to do or what I hadn't done. (ID 67)

I think I should have taken this subject about 10 years ago!! (ID 50)

Multilevel interventions

An occasional student noted that it is important to have follow-up services for students who need additional support in making changes in their lives:

I have become more aware of my emotions, particularly feelings of anger. But the seminar did not give me any practical advice on what to do once I was aware of my emotions. (ID 4)

I think that psychoeducation would need to be an ongoing thing. For example I had issues from coming away from one session; if I had attended seminars regularly maybe that would help control my thinking better (as an example). (ID 43)

Discussion

The high prevalence rate of psychological distress combined with high academic demands on students suggests that there is a need for universal interventions that increase student resilience and resilience literacy. This study aimed to evaluate the feasibility of embedding a strength-focused resilience-building seminar within the tertiary curriculum. The curriculum provided an avenue for all students enrolled in the subject to access practical strategies to enhance their wellbeing. This is in direct contrast to optional workshops held during orientation week or during the semester, where relatively few students attend (Barnard, 2009; Stallman, 2009b) or the small proportion of students who access student counselling services for individual counselling (Gallagher, 2009).

Embedding such programs within the curriculum sends a clear message to students that resilience is considered by staff as an important part of their education and seen as something applicable to all students rather than just students identifying as having problems. Hearing comments from other students that were similar to their own experiences helped normalise the concerns of students. The relevance of the program as a universal intervention is reflected in the overall high ratings for both satisfaction and usefulness (both immediate and delayed) of the *Staying on Track* seminar with few students finding it unhelpful. The relevance is also supported by the content having broad applicability amongst students, with all content areas receiving support from at least one third of participants and with the majority of students being able to identify a plan to improve their wellbeing.

One participant highlighted, ‘... usually I say to myself that I will make a change, then forget about it straightaway’. Given this limitation of one-off seminars, it is important that the seminar is able to translate into changes for the participants in the real world. The results showed that the seminar had a different impact for different people. For some students, it provided them with strategies to address issues they were currently facing or may face in the future. It reinforced changes some students were already making or reminded them to use strategies they were already aware of. Students who made changes were immediately positively reinforced with a greater sense of control and wellbeing in their lives.

Embedding the *Staying on Track* seminar within the curriculum meets the program design features identified by Prinz and Sanders (2007) as potential determinants of population effects, including minimal sufficiency, addresses multiple goals and outcomes concurrently, accessibility and a self-regulatory framework. Embedding resilience within the curriculum enables students to access the program irrespective of which course they are enrolled in, rather than having to present at a health or counselling service. The student journal entries highlighted the self-regulatory framework (Bandura, 1995; Karoly, 1993) of the seminar with students demonstrating the capacity to set their own goals for change and select appropriate strategies to reach their goals. The six building blocks for resilience were used by

students to address multiple and individual goals. While this seminar was delivered by the author, *Staying on Track* is able to be delivered by counsellors from a range of disciplines involved with student wellbeing, enabling a broad reach of intervention across universities. The seminar has quality training and resource materials to enable facilitators to deliver the program sufficiently to produce similar effects with minimal training.

One of the aims of the *Staying on Track* seminar is to increase help-seeking as needed. Although this was not evaluated in this in the current study, two features of the seminar identified by students may lead to help-seeking when needed: (1) students feeling that their issues were common and normal across the student body and (2) having a Tip Sheet to remind them of support within the university. The effect of the seminar on help-seeking may be enhanced by having counselling services staff deliver the seminar. The seminar would then become a positive prior experience of counselling for the students (e.g. by being useful, satisfying and building a belief in the competence of the counsellor), which enhances attitudes towards seeking further professional help, especially from the counselling service (Halgin, Weaver, Edell, & Spencer, 1987). The emphasis within the seminar on normalizing experiences and making the link between wellbeing and student success may also contribute to reducing barriers to help-seeking, as success at university is a high priority for many students. The seminar would fit well within a multilevel approach to prevention and treatment of mental health problems in students and could be used to increase student awareness of both high- and low-intensity resilience-building interventions available at their university. This is especially important for those students who become aware of a need for additional help as a result of attending the seminar.

Limitations

A limitation to this study is that it was undertaken with students in a psychology undergraduate subject. Although less than half of these students were enrolled in a psychology degree, they may differ from students in other courses by their level of interest in psychological strategies and their enthusiasm and self-efficacy in applying the strategies to make changes in their lives. Although the pilot data on a law cohort showed similar results, further research is needed to evaluate the effectiveness in embedding the program within other faculties.

Table 1. Number of building blocks within seminar endorsed as being useful.

Number of building blocks endorsed	<i>N</i> (<i>n</i> = 247)	Percentage of sample
0	24	9.7
1	37	15.0
2	58	23.5
3	51	20.6
4	34	13.8
5	5	2.0
6	38	15.4

Conclusion

This study provides preliminary support for the satisfaction and usefulness of a brief strength-focused resilience intervention within the tertiary curriculum. The seminar is a cost-effective way of increasing resilience-literacy in students. It has the potential to play an important role in a multi-level approach to the prevention and treatment of mental health problems in tertiary students and could be incorporated as a universal resilience-promotion strategy in universities. This, in turn, has implications for students' ability to achieve graduate capabilities articulated by their university and their potential to make a positive contribution to their community.

References

- American Psychological Association. (2010). *The road to resilience*. Retrieved 6 April, 2010, from <http://www.apa.org/helpcenter/road-resilience.aspx>
- Andrews, G., Henderson, S., & Hall, W. (2001). Prevalence, comorbidity, disability and service utilisation: Overview of the Australian National Mental Health Survey. *British Journal of Psychiatry*, *178*(2), 145–153.
- Arnsten, A.F.T., & Robbins, T.W. (2002). Neurochemical regulation of prefrontal cortical function in humans and animals. In D. Stuss & R. Knight (Eds.), *The frontal lobes* (pp. 51–84). New York: Oxford University Press.
- Bandura, A. (1989). Regulation of cognitive processes through perceived self-efficacy. *Developmental Psychology*, *25*(5), 729–735.
- Bandura, A. (1995). *Self-efficacy in changing societies*. New York: Cambridge University Press.
- Barnard, S. (2009). A randomized control trial of a brief psychoeducational seminar to promote resilience in university students. Unpublished raw data.
- Boulton, G., & Lucas, C. (2008). *What are universities for?* Amsterdam: League of European Research Universities.
- Bowden, J., & Marton, F. (1998). The idea of the university. In J. Bowden & F. Marton (Eds.), *The university of learning* (pp. 3–12). London: Kogan Page.
- Claxton, G. (2002). *Building learning power: Helping young people become better learners*. Bristol, UK: The Learning Organisation.
- Eisenberg, D. (2007). Help-seeking and access to mental health care in a university student population. *Medical Care*, *45*(7), 594–601.
- Eisenberg, D., Gollust, S.E., Golberstein, E., & Hefner, J.L. (2007). Prevalence and correlates of depression, anxiety and suicidality among university students. *American Journal of Orthopsychiatry*, *77*(4), 534–542.
- Gallagher, R.P. (2007). *National survey of counseling center directors*. Washington, DC: International Association of Counseling Services.
- Gallagher, R.P. (2009). *National survey of counseling center directors*. Washington, DC: International Association of Counseling Services.
- Gillham, J.E., Reivich, K.J., Freres, D.R., Chaplin, T.M., Shatté, A.J., Samuels, B., et al. (2007). School-based prevention of depressive symptoms: A randomized controlled study of the effectiveness and specificity of the Penn Resiliency Program. *Journal of Consulting and Clinical Psychology*, *75*(1), 9–19.
- Halgin, R.P., Weaver, D.D., Edell, W.S., & Spencer, P.G. (1987). Relation of depression and help-seeking history to attitudes toward seeking professional psychological help. *Journal of Counseling Psychology*, *34*(2), 177–185.
- Hulka, B.S., Kupper, L.L., & Cassel, J.C. (1972). Determinants of physician utilization: Approach to a service-oriented classification of symptoms. *Medical Care*, *10*(4), 300–309.
- Karoly, P. (1993). Mechanisms of self-regulation: A systems view. *Annual Review of Psychology*, *44*(1), 23–52.
- Kim, J.J., & Diamond, D.M. (2002). The stressed hippocampus, synaptic plasticity and lost memories. *Nature Reviews Neuroscience*, *3*(6), 453–462.
- Prinz, R.J., & Sanders, M.R. (2007). Adopting a population-level approach to parenting and family support interventions. *Clinical Psychology Review*, *27*(6), 739–749.

- Quayle, D., Dziurawiec, S., Roberts, C., Kane, R., & Ebsworthy, G. (2001). The effects of an optimism and lifeskills program on depression in pre-adolescents. *Behaviour Change*, 18(4), 194–203.
- Queensland University of Technology. (2009). C/4.3 graduate capabilities: *Manual of policies and procedures*. Retrieved December 2009, from http://www.mopp.qut.edu.au/C/C_04_03.jsp
- Richards, D. (2009). Features and benefits of online counselling: Trinity College online mental health community. *British Journal of Guidance & Counselling*, 37(3), 231–242.
- Song, Y.Q., Huang, Y.Q., Liu, D., Kwan, J.S.H., Zhang, F.Q., Sham, P.C., et al. (2008). Depression in college: Depressive symptoms and personality factors in Beijing and Hong Kong college freshmen. *Comprehensive Psychiatry*, 49(5), 496–502.
- Stallman, H.M. (2009a). *Staying on Track facilitator's manual*. Brisbane: Queensland University of Technology.
- Stallman, H.M. (2009b). Evaluation of the Staying on Track seminar with law students. Unpublished raw data.
- Stallman, H.M. (2010). Psychological distress in university students: A comparison with general population data. *Australian Psychologist*, 45(4), 286–294.
- Stallman, H.M. (in press). University counselling services in Australia and New Zealand: Activities, changes, and challenges. *Australian Psychologist*.
- Stallman, H.M., & Hurst, C.P. (in press). Evaluation of the psychometric properties and clinical utility of the University Stress Scale. *Australian Psychologist*.
- Starker, S. (1986). Promises and prescriptions: Self-help books in mental health and medicine. *American Journal of Health Promotion*, 1(1), 19–24.
- Surtees, P., Wainwright, N., & Pharoah, P. (2000). *Student mental health and academic attainment: A report to the review committee of the University of Cambridge Counselling Service*. Cambridge: University of Cambridge.
- Vanheusdena, K., Mulderc, C.L., van der Endea, J., van Lentheb, F.J., Mackenbachb, J.P., & Verhulsta, F.C. (2008). Young adults face major barriers to seeking help from mental health services. *Patient Education and Counseling*, 73(1), 97–104.