

Wellbeing education for educators

Jason Hinze

Senior Lecturer, Faculty of Education, Business and Science, Avondale College of Higher Education, Cooranbong, NSW

Darren Morton

Senior Lecturer, Lifestyle Research Centre, Faculty of Education, Business and Science, Avondale College of Higher Education, Cooranbong, NSW

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Abstract

This study examined the impact of a 10-week multimodal wellbeing intervention (The Lift Project) on pre-service teachers' personal wellbeing and their perceptions of the value of the intervention when embedded into their course of study. Ninety-two percent of the 103 students (20.1±3.0 yrs, 29 males/74 females) indicated that the intervention positively influenced their wellbeing. Significant improvements were observed in all domains of wellbeing measured, including: perceived physical health (5.1%, p<0.001), physical health behaviours (7.4%, p<0.001), mental health (16.3%, p<0.001), vitality (18.9%, p<0.001), spirituality (4.4%, p<0.01), and life satisfaction (7.1%, p<0.001). Further, significant reductions were recorded in symptoms of depression (-30.6%, p<0.001), anxiety (-34.9%, p<0.001) and stress (-23.3%, p<0.001). The pre-service teachers indicated that the intervention would equip them to support the wellbeing of their future students. The findings of the study suggest that meaningful improvements can be achieved in the wellbeing of pre-service teachers by embedding experiential studies of wellbeing into pre-service teacher education.

Introduction

Within the Australian education sector there is a growing interest in the promotion of student wellbeing. This interest has resulted in the development of the Wellbeing Frameworks for Schools by the NSW Government (2015) as well as initiatives by non-governmental not-for-profits such as Wellbeing in Schools Australia (n. d.).

While numerous factors contribute to student wellbeing, McCallum and Price (2010) suggest that

one important determinant is the wellbeing of the teachers. Alarming, numerous reports indicate that teachers suffer significant challenges to their wellbeing with up to 30% being affected by burnout and psychological distress (Milatz, Luftenegger, & Schober, 2015), resulting in up to 40% of teachers leaving the profession in under five years of service (Acton & Glasgow, 2015). Clearly, the promotion of teacher wellbeing is an imperative.

Avondale College of Higher Education is a private provider of pre-service teacher education. The institution is associated with the Seventh-day Adventist church, which has a rich heritage of advocating health and wellbeing. Accordingly, in 2016, when the education courses at Avondale were restructured, formal wellbeing education was embedded into the courses of study for pre-service teachers. Specifically, all pre-service teachers in their first year of study are required to undertake a subject titled 'Foundations of Wellbeing', that has the objective of experientially exploring a variety of evidence-based strategies for improving wellbeing.

To date, the wellbeing 'space' has primarily grown out of the 'Positive Psychology' movement, and hence has a psychological orientation. This is evidenced by initiatives such as 'Positive Education', initially piloted at Geelong Grammar under the guidance of Positive Psychology pioneer Professor Martin Seligman (Green, Oades, & Robinson, 2011). Positive Education has been defined by the Australian Psychological Society as "applied Positive Psychology in education" (Green et al., 2011, p. 16) and involves a variety of strategies that aim to strengthen the wellbeing of students, staff and schools.

However, wellbeing is a broad construct that has more than just psychological underpinnings. For example, Positive Psychology interventions typically focus on psychological strategies such as expressing gratitude, reflecting on 'what went well' and activating signature strengths (Gander, Proyer, & Ruch, 2016; Proyer, Gander, Wellenzohn, & Ruch,

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2015; Proyer, Wellenzohn, Gander, & Ruch, 2015; Seligman, Steen, Park, & Peterson, 2005) but do not include other important determinants of wellbeing such as physical activity (Blumenthal et al., 2007), nutrition (White, Horwath, & Conner, 2013), sleep (Neckelmann, Mykletun, & Dahl, 2007) and exposure to health-enhancing environments such as outdoor spaces (Nutsford, Pearson, & Kingham, 2013). These determinants of wellbeing belong to an emerging discipline referred to as ‘Lifestyle Medicine’.

In the Foundations of Wellbeing subject at Avondale, the students are exposed to a variety of evidence-based approaches from both the disciplines of Positive Psychology and Lifestyle Medicine. The intent of the subject is to equip the future educators with skills to care for and grow their personal wellbeing in order to optimise their personal success and to equip them to be agents of change in the lives of their future students.

This study adopted a mixed methods approach to examine the impact of the subject on the pre-service teachers’ wellbeing as well as their attitudes towards the subject.

Methods

Participants

A total of 127 students undertook the mandatory subject titled ‘Foundations of Wellbeing’ of which 103 (81%) consented to participate in the study, constituting of 29 males and 74 females with a mean age of 20.1±3.0 years. Importantly, the students’ grades for the subject were not linked to the outcomes of the study so as to avoid reporting bias. The study was approved by the Avondale College Human Research Ethics committee (approval number 2017:05) and the students provided informed consent to participate in the study.

Intervention

The Foundations of Wellbeing subject was conducted over a 13-week semester and included one weekly 1.5-hour interactive lecture. The first two weeks of the subject introduced the construct of wellbeing and then each week for the following 10 weeks (the intervention) the students were introduced to an evidence-based strategy for improving wellbeing from the Positive Psychology or Lifestyle Medicine literature.

For each of the 10 weeks of the intervention (The Lift Project) the students were given a small daily challenge and one larger weekly challenge that involved acting on the learning for the week. At the end of each week the students were invited to reflect on the impact of the challenges on their wellbeing and share their experiences with others both in and

outside the class.

A novel approach of the Foundations of Wellbeing subject was that it used a Neuroscience underpinning to present the wellbeing-enhancing strategies covered in the intervention. Specifically, the intervention educated the students about their emotional brain (the Limbic system) and how the strategies presented in the intervention positively influenced this region of the brain. The reason for this focus on the emotional brain was that while wellbeing is a broad construct that involves several domains including physical, mental, social and spiritual health, it was rationalised that these domains ultimately support emotional wellbeing. Indeed, it has been asserted that ‘wellbeing’ is characterized by high levels of positive emotions, low levels of negative emotions and a high level of life satisfaction (Lyubomirsky, Dickerhoof, Boehm, & Sheldon, 2011), which highlights the predominance of emotional wellbeing.

An overview of the 10 weeks of the intervention, including the key messages and challenges, is outlined below:

Week 1: *Speak positively*

This session introduced the participants to their ‘emotional brain’—the Limbic System—and described its basic function and structure. The influence of language on relationships was also explored, highlighting the work of John Gottman (Carrere, Buehlman, Gottman, Coan, & Ruckstuhl, 2000) and Marcial Losada (Losada, 1999), and the participants were challenged to ‘speak positively’ by offering a genuine compliment to someone each day for a week. The weekly challenge involved seeking out and memorising an inspirational quote or saying.

Week 2: *Move dynamically*

The proprioceptive influence of the body on the brain was presented and the mood-enhancing influence of good posture (Nair, Sagar, Sollers, Consedine, & Broadbent, 2015) and physical activity (Richards et al., 2015) were highlighted. The challenges for the week included reducing prolonged sit time and engaging in daily physical activity, including resistance exercise. Specifically, the students were challenged to undertake 30 minutes of moderate-intensity physical activity each day or achieve 10,000 steps if they had access to a personal step counter. A video of a guided resistance exercise session that could be completed in their home environment with common house-hold items was provided to the students and they were encouraged to complete this two times during the week.

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Week 3: *Immerse in an uplifting physical environment*

The positive influence of natural environments on emotional wellbeing (Mantler & Logan, 2015), especially bright natural light (Vyssoki et al., 2012), was presented and the mechanisms through which it is mediated were discussed. The daily challenge involved the participants immersing themselves in a brightly lit natural environment for 30 minutes each day (ie. outdoors) and the weekly challenge involved seeing a sunrise in a natural setting.

Week 4: *Immerse in an uplifting social environment*

This session explored the socially contagious nature of depression and happiness (Fowler & Christakis, 2008) and the participants were asked to reflect upon their own relationships and the impact these had on their personal wellbeing. The participants were challenged to identify the 'love language' (Chapman, 1995) of someone close to them and proactively undertake one loving act each day for the week. The love languages, as described by Chapman (1995) include: offering words of affirmation, acts of service, (appropriate) physical touch, giving of gifts and spending quality time. The weekly challenge involved 'finding or forgiving a friend'. 'Finding a friend' was encouraged for those who had a limited social network and the challenge involved reaching out to inclusive community interest groups. 'Forgiving a friend' was the alternate weekly challenge and was encouraged for those who self-identified themselves as caught in cycles of forgiveness that were detrimental to their relationships. Forgiveness was defined as "giving up the right to hurt you for hurting me" (Tibbits, 2016) and was presented as a pathway to restoring relationships. It was acknowledged that forgiveness does not mean forgetting, condoning or excusing the consequences of a wrong action.

Week 5: *Look to the positive*

The interaction between thinking and feeling was explored (Garland et al., 2010) and the participants were guided toward looking to the positive in the past, present and future. The daily challenge involved the 'three good things in life' exercise described by Seligman and colleagues (Seligman et al., 2005) which involved journaling each evening three things that went well that day. The weekly challenge involved the 'Gratitude Visit' (Emmons & McCullough, 2003)—a commonly used Positive Psychology intervention—and involved identifying someone who in the past had a substantial positive effect on the participants' life, writing a few paragraphs about that person and their contribution, and then going to read it to the individual.

Week 6: *Eat nutritiously*

The emerging evidence for gut-brain interaction, especially relating to the gut microbiome and its impact on mood (Mayer, 2011), was explored. In light of the connection between the consumption of fruit and vegetables and happiness (Blanchflower, Oswald, & Stewart-Brown, 2013), the daily challenge involved consuming eight serves of high-fibre, whole-foods each day. The weekly challenge involved preparing a plant-based meal and sharing it with someone. Recipes were made available to the participants.

Week 7: *Rest (sleep)*

The connection between sleep deprivation and depression (Neckelmann et al., 2007) was examined and the deleterious effect of exposure to 'blue' light in the evening (Bedrosian & Nelson, 2013), as emitted by screens, on sleep hygiene was presented. The daily challenge involved spending 8 hours in bed each night for a week without screen-based activity. The weekly challenge involved spending one evening by fire light, which is 'red/yellow' as compared to 'blue' and may promote sleep (Stothard et al., 2017).

Week 8: *Rest (destress)*

Numerous strategies for reducing stress were examined. The daily challenge involved taking 15 minutes each day to engage in an activity that promoted laughter or that involved being still and mindful (Keng, Smoski, & Robins, 2011). In the case that laughter promoting activities were chosen the participant was encouraged to seek out humorous internet-based video content, and links to appropriate content were provided. Mindfulness was described as "being more present" and the participants were instructed to choose either an external or internal mindfulness exercise. The external exercise involved sitting quietly in a natural outdoor environment and taking intent notice of their surroundings. The internal exercise involved sitting or lying still and taking notice of sensations in their body, especially with regards to muscle tension and breathing. The weekly challenge involved taking one entire day out—a Sabbath—from their usual activities of the week (ie. work or study).

Week 9: *Serve*

Evidence for the connection between serving and emotional wellbeing was presented as captured in the statement by Martin Seligman, former President of the American Psychological Association and pioneer of Positive Psychology: "Doing a kindness produces the single most reliable increase in wellbeing of any exercise we have tested" (Seligman,

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The daily challenge ... involved journaling each evening three things that went well that day. The weekly challenge involved the 'Gratitude Visit' [to a mentor]”

2011, p.20). The daily challenge involved performing one random act of kindness each day for a week. The weekly challenge involved completing a signature strengths assessment and reflecting on ways to use these strengths in a new way for the benefit of others (Proyer, Gander, Wellenzohn, & Ruch, 2014).

Week 10: *What does it take to flourish?*

This concluding session overviewed Seligman's PERMA model that argues for five domains of wellbeing that according to the field of Positive Psychology contribute to human flourishing: Positive emotions, Engagement, Relationships, Meaning and Achievement (Seligman, 2011). There were no prescribed challenges from the session, however, the participants were encouraged to reflect on what gave their life meaning where meaning was defined as having a sense that they belonged to and contributed to something bigger than them self (Seligman, 2011).

Quantitative Measurements

The participants completed a wellbeing questionnaire at baseline and post-intervention that measured several domains of wellbeing (transposed to scores from 0 to 100) including:

1. *'Perceived physical health'* – derived from the subdomain by the same title from the validated 36-item Short Form Survey (SF-36) (RAND Health, 2017) and involved an aggregated score from six items.
2. *'Physical health behaviours'* – derived from eight items that asked about the participants' fruit and vegetable consumption, physical activity levels, alcohol consumption, smoking and sleep hygiene.
3. *'Mental health' and 'Vitality'* – derived from the subdomains by the same title from the validated 36-item Short Form Survey (RAND Health, 2017). The mental health subdomain involves five items and the vitality domain four items.
4. *'Depression', 'Anxiety' and 'Stress'* - measured using the 21-item Depression, Anxiety and Stress Scale (DASS-21) that has been validated (Henry & Crawford, 2005). As implied, this instrument measures three domains—'depression', 'anxiety' and 'stress'—through seven items for each domain.
5. *'Spiritual'* – derived from five items that asked about the participants' spiritual practices and connection (Ohio State University, 2015)
6. *'Life satisfaction'* – derived from the five-item Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985).

Qualitative Measurements

On completion of the intervention the participants were asked the following open-ended questions:

Do you feel that your wellbeing changed over the course of the intervention? If so, what ways did it change and why did it change?

Have you learnt anything over the course of the intervention that has better equipped you to care for your wellbeing in the future? If so, please explain.

Data analyses

Data were analysed using IBM SPSS Statistics (version 22) and are expressed descriptively as mean and standard deviation. Changes in the nine contributors to wellbeing from baseline to post-intervention were analysed using paired t-tests. Cohen's d was also calculated for the baseline to post-intervention change in each contributor to determine effect size.

The open-ended questions were initially read over on several occasions before being coded (Creswell, 2014) and categorised into themes (Rossman & Rallis, 2012).

Results

In the open-ended questions, 92% of the participants reported that they felt that the intervention had a positive impact upon their wellbeing and this was the most dominant theme that emerged from the participants' open-ended responses.

Specifically, the participants felt that the skills and strategies they had learnt and experienced through the intervention equipped them to better care for their wellbeing into the future and make themselves more resilient. This was evidenced by quotes such as:

Over the course of this semester, I have learned a lot that will better equip me to care for my wellbeing now, in the future and also be able to share with others to help them care for their wellbeing (Participant 15).

I am now able to overcome such situations and reduce my emotional distress by implementing strategies such as ... learnt during the course. For this reason, I consider my wellbeing moderately high as I can now have more control over it (Participant 47).

Furthermore, some participants indicated that they felt the learnings from the intervention prepared them to support their future students. For example:

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Doing a kindness produces the single most reliable increase in wellbeing of any exercise we have tested”

Before doing the course, I used to struggle with depression and anxiety. My eyes have now been opened to how I can adapt my lifestyle to create a happier state of mind. When I become a teacher, I hope to be a figure that my students will be able to come to for advice, especially in relation to managing depression and anxiety (Participant 42).

The entire course has had a positive impact on my wellbeing. It has equipped me to be successful with the stresses that occur at University and I will take the things that I have learnt into my classroom when I become a teacher (Participant 67).

When I have my own classroom, I am going to try and adapt and incorporate this information into my lessons. I believe that it is important for young students to know this information when going through school (Participant 9).

Noteworthy, among those participants who did not report that the intervention improved their wellbeing, several indicated that they had experienced extenuating circumstances during the time-period of the intervention or that their wellbeing was very high at baseline so had little chance for improvement.

The positive impact of the intervention on the participants' wellbeing was further highlighted through the quantitative data. Table 1 displays the

mean scores, and changes from baseline to post-intervention, of the nine measures of wellbeing measured in the study. As shown, significant improvements were observed in all measures, with moderate to large effect sizes recorded in some.

Analyses of the open-ended responses suggested three themes for why the participants felt that the intervention had resulted in a meaningful improvement in their wellbeing. These themes can be represented by: Consolidating, Challenging and Connecting.

Consolidating – the participant's felt that the intervention consolidated theory and practice.

Participants commonly mentioned that they appreciated the neuroscience underpinning of the intervention that provided insights as to why the wellbeing enhancing strategies presented are efficacious. This is illustrated through quotes like:

My mother taught me that sunlight and exercise is good for your health and all the basic concepts, but in this class I was able to learn in deeper context the why of everything. It was very interesting to understand the way that our actions affect our brain. I loved learning about the (emotional brain) and how it works (Participant 23).

Challenging – the participants commonly reported benefitting from the experiential nature of the intervention that involved implementing learnings

“Participants ... appreciated the neuroscience underpinning of the intervention that provided insights as to why the wellbeing enhancing strategies ... are efficacious.”

Table 1: Pre- to post-intervention changes in the measured domains of wellbeing

WELLBEING DOMAIN	PRE-TEST Mean	PRE-TEST SD	POST-TEST Mean	POST-TEST SD	Change	Significance	% Change	Effect Size (Cohen's d)
Perceived physical health	71.8	13.0	75.5	13.7	4	<0.001	5.1	0.28
Physical health behaviours	63.5	10.5	68.3	10.2	5	<0.001	7.4	0.46
Mental health	71.2	16.4	82.8	14.7	12	<0.001	16.3	0.75
Vitality	58.2	16.3	69.2	18.1	11	<0.001	18.9	0.64
Depression	14.9	16.1	10.3	12.8	-5	<0.001	-30.6	-0.32
Anxiety	15.1	14.7	9.8	11.1	-5	<0.001	-34.9	-0.41
Stress	24.4	15.5	18.7	14.5	-6	<0.001	-23.3	-0.38
Spiritual	73.1	20.1	76.3	21.1	3	0.004	4.4	0.16
Life satisfaction	74.6	16.3	79.9	15.1	5	<0.001	7.1	0.34

Notes:

1. Each domain is transposed to a score out of 100.
2. SD – Standard deviation.

and moving from theory to practice. This was evident through quotes like:

(Previously) I had hit a massive roadblock, causing my mental health to derail and suffer. However, this quickly changed when the challenges of this class were given; forcing me to look to the positive, and realise the things and the people I am blessed with every day. I found myself being a lot more positive (Participant 14).

Whenever I completed the challenges properly it really benefitted my life in many different ways (Participant 88).

Connecting – the participants enjoyed the social nature of the intervention as well as the emphasis on sharing what they were learning with others from within their circle of influence. For example:

I have come home from class each week and shared these interesting facts with my family and made sure that they too are putting these life lessons into practice (Participant 19).

Discussion

The results of this study suggest that meaningful improvements in the wellbeing of pre-service teachers can be achieved through experiential wellbeing education embedded into their course of study.

The high percentage of participants (92%) who reported positive outcomes of the intervention is encouraging and the quantitative data is especially noteworthy. Bolier et al. (2013) conducted a meta-analysis of 39 randomized controlled trials that examined the effectiveness of strategies from the Positive Psychology literature and reported mean effect sizes of 0.20 and 0.23 for changes in psychological wellbeing and depression, respectively. Similarly, Blumenthal and colleagues (2007) reported an effect size of 0.20 for the impact of an exercise intervention on depressive symptoms. Clearly, a limitation of the quantitative aspect of this study is the lack of a control group to account for factors such as the Hawthorne effect, regression to the mean and placebo effect. Notwithstanding, the significant improvement in all the domains of wellbeing measured in this study, especially with the high effect sizes recorded in some domains, coupled with the relatively large sample size of the study, renders the outcomes noteworthy.

The substantially larger effect sizes observed in the present study, especially in the domains of ‘mental health’ (cohen’s $d = 0.75$) and ‘vitality’

(cohen’s $d = 0.64$), suggest a compounding of the benefits of the various strategies incorporated into the intervention administered in the present study. This is an important finding of the study and indicates that when designing interventions for improving mental health and wellbeing, a multimodal approach is warranted. Indeed, the intervention used in this study was quite unique in the way that it blended strategies from both the disciplines of Positive Psychology and Lifestyle Medicine, and the findings of this study suggest that it is most efficacious and therefore this approach should be more widely used.

Several other learnings also arise from this study with regards to designing wellbeing interventions for optimal effectiveness. Firstly, given that a common theme reported by the participants was that the consolidation of theory and practice made the intervention more meaningful and engaging, attests to the importance of wellbeing interventions being evidence-based and having a scientific rationale for the wellbeing-enhancing strategies they present. Secondly, the value placed by the participants on the challenging nature of the intervention highlights the importance of making wellbeing interventions experiential. Finally, the element of social connection is important and hence it is important that wellbeing interventions promote social interaction, either with fellow participants in the intervention or with others from within the participants’ circle of influence. Indeed, Fowler & Christakis (2008) demonstrated that wellbeing is socially contagious, even up to three degrees of separation.

It is hypothesised that the insights gained through this study, relating to the core components that should be included in wellbeing education programs for pre-service teachers, are also translatable to practicing teachers. Indeed, in light of the positive outcomes achieved in the present study, further investigation examining the effectiveness of the intervention among practicing teachers is warranted. As previously highlighted, practicing teachers face significant challenges to their wellbeing, characterised by high levels of burnout and associated attrition rates (Acton & Glasgow, 2015). Further, poor teacher wellbeing is associated with high levels of absenteeism and compromised job performance, and also has financial implications as a result of increased health care costs and mental health claims (Acton & Glasgow, 2015). It is unremarkable therefore that teacher wellbeing impacts student wellbeing (McCallum & Price, 2010).

Clearly the goal of a wellbeing intervention is to resource participants for long-lasting improvements in their wellbeing. As the intervention used in this study was only conducted over 10 weeks, a follow-up study is planned to determine whether the intervention resulted in long-term benefits. While

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it is acknowledged that some of the challenges in the intervention do not lend themselves to being performed regularly, such as the ‘gratitude visit’, others behaviours do, such as increasing exercise levels, eating more plant-based foods and focusing on ‘what went well’. Further research is therefore needed to better understand how to facilitate the retention of these behaviours introduced in the intervention and how to mitigate recidivism. For example, the effect of including wellbeing studies throughout a pre-service teachers’ entire course of study, as compared to a single subject, would be valuable.

Lyubomirsky and colleagues (2011) concluded that interventions designed to increase wellbeing require both a ‘will and a proper way’. Assuming the intervention adopted in the present study constituted a ‘proper way’—being based on sound pedagogical and behavioural frameworks and incorporating evidence-based wellbeing enhancing strategies—an important area of study is how to leverage the ‘will’ of participants in order to optimise outcomes. It is pertinent that the participants in this study undertook the intervention as a mandatory part of their course of study. The study sample could therefore be assumed to include individuals with varying levels of ‘will’. It would be beneficial for future studies to measure the participants’ readiness for change at the beginning of the intervention, as a surrogate for their baseline ‘will’, to explore its impact on both their level of engagement with the intervention and the outcomes achieved. An investigation of strategies for engaging the ‘will’ is also warranted, and may include: offering frequent feedback, follow-up reminders and encouragement to participants in the form of text messages or other media; boosting social connectedness and interaction through a dedicated social media portal in which the participants document and share their experiences; incorporating gamification strategies and rewards through the awarding of points for the successful completion of challenges.

Conclusions

The findings of this study suggest that meaningful improvements in the wellbeing of pre-service teachers can be achieved through a multimodal intervention that is embedded into their course of study. Providers of pre-service teacher education should therefore consider the inclusion of wellbeing studies into their scope of subject offerings. Wellbeing education should be evidence-based, experiential and promote social connectedness. Providing wellbeing education to pre-service teachers may not only better equip them to care for their own wellbeing, but also enable them to be positive agents of change in the school setting. All educators should be wellbeing educators. **TEACH**

“Providing wellbeing education to pre-service teachers may not only better equip them to care for their own wellbeing, but also enable them to be positive agents of change in the school”

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Author information:

Dr Morton is recognised as an international authority in Lifestyle Medicine, being an inaugural Fellow of the Australasian Society of Lifestyle Medicine and one of four people selected worldwide to write the exam for Board Certification in Lifestyle Medicine for Physicians in the United States. Presently he is the Course Convenor for Postgraduate Studies in Lifestyle Medicine at Avondale. He was a key developer of, and is a presenter in, the Complete Health Improvement Program (CHIP) which is a premier Lifestyle Medicine intervention targeting chronic diseases that now operates in over 10 countries around the world. Darren is a recipient of a government-awarded Citation for Outstanding Contributions to Student Learning in Higher Education. For fun Darren enjoys family time and outdoor activities.

Dr Jason Hinze is a lecturer and Secondary Course Convenor at Avondale College of Higher Education. For the past 20 years he has made significant contributions towards Education as a Secondary Teacher, Community Educator and Initial Teacher Educator in Australia, Cambodia, England, India and Nepal. His current research interests include wellbeing education and the power of overseas professional teaching experiences on the development of pre-service teachers. Most of Jason's free time is spent playing 'hide and seek' with his two daughters (both still under three) and reading children's books using funny voices with the help of his wife Melissa.