

Development and Evaluation of Positive Psychology
Interventions for Australian Adolescents

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Abstract

Youth consultation methods were integrated in the current thesis to create and test two school-based positive psychology interventions (PPIs) for adolescents. A literature review explored methodological and conceptual considerations in the application of positive psychology with adolescents (Publication 1). An exploratory study of 114 adolescents (aged 14 to 17) compared the relative contributions of key positive psychology variables (i.e., strengths use, hope, gratitude, pleasure, engagement, and meaning) to positive (i.e., life satisfaction, positive affect); and negative (i.e., negative affect, depression, and anxiety) indicators of mental health (Publication 2). As expected, positive psychology variables were significant predictors of all mental health outcome variables. Specific findings from multiple regression analyses were that gratitude and strengths use were consistent predictors of negative mental health indicators; whereas hope and gratitude were significant predictors of life satisfaction, and hope, strengths use and engagement were significant predictors of positive affect. Two separate qualitative youth consultation processes (i.e., phone interviews with 28 adolescents and online questionnaires with 57 adolescents) were conducted. Adolescents' recommendations on how to make mental health programs appealing and engaging were explored using NVivo thematic analysis and critically discussed (Publication 3). Subsequently, adolescents' ideas were combined with extant research to develop two adolescent focused PPIs. The first PPI, the full life intervention, was a holistic, multi-component intervention that integrated activities aimed at cultivating hope, gratitude, strengths, pleasure, engagement, and meaning. The second PPI, the simple pleasures intervention, focused on exploring and savouring life's simple pleasures. A school-based randomised controlled trial with 90 adolescents aged 14 to 17 was used to test

the effectiveness of the two PPIs relative to a usual care control condition (Publication 4). Repeated measures ANOVAs indicated that participants allocated to all conditions reported decreased anxiety and stress post intervention. However, contrary to expectations, no significant improvements in well-being or symptoms of depression were evident. This research provides preliminary support for the application of PPIs in youth and school settings but underscores the need for more refined and systemic approaches that target multiple environments (i.e., family, school climate, community) in adolescents' lives.

General Declaration

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I hereby declare that this thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

This thesis includes one original paper published in a peer reviewed journal and three unpublished publications. The core theme of the thesis is positive psychology and adolescent mental health. The ideas, development and writing up of all the papers in the thesis were the principal responsibility of myself, the candidate, working within the School of Psychology and Psychiatry under the supervision of Dr Dianne Vella-Brodrick. In the case of Chapters 2, 4, 6, & 9 my contribution to the work involved the following:

Thesis chapter	Publication title	Publication status	Nature and extent of candidate's contribution
2	Positive Psychology and Adolescents: Where are we now? Where to from here?	Published	Primary author
4	Predicting Adolescent Mental Health using a Positive Psychology Framework	Submitted	Primary author
6	Collaborating with Adolescents to Develop Innovative and Relevant Approaches to Youth Mental Health	Submitted	Primary author
9	A Randomised Controlled Trial of School-Based Positive Psychology Interventions	Submitted	Primary author

Jacolyn Norrish

17th December 2010

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Table of Publications

Publication	Status
Norrish, J. M., & Vella-Brodrick, D. A. (2009). Positive psychology and adolescents: Where are we now? Where to from here? <i>Australian Psychologist</i> , 44, 270-278.	Published
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Chapter 1: General Introduction

Positive psychology is the scientific study of well-being, strengths, and human flourishing (Gable & Haidt, 2005). A priority in positive psychology research has been the development and testing of interventions aimed at cultivating well-being and positive emotions in addition to alleviating mental pathology and distress (Sin & Lyubomirsky, 2009). There is emerging evidence that positive psychology interventions (PPIs) are effective in enhancing well-being and decreasing mental health problems (Seligman, Steen, Park, & Peterson, 2005; Sin & Lyubomirsky, 2009). Subsequently, researchers and practitioners have begun to focus on targeting PPIs for specific sub-groups of the population.

The application of PPIs with adolescents and in school settings has gathered substantial attention (Clonan, Chafouleas, McDougal, & Riley-Tillman, 2004; Gilman, Huebner, & Furlong, 2009). Rates of mental health problems in adolescent populations are consistently reported as being high (Ravens-Sieberer, Erhart, Gosch, & Wille, 2008; Sawyer et al., 2000). Furthermore, many adolescents without diagnosable mental health problems have been found to report only moderate psychological, social, and emotional well-being (Keyes, 2006). Positive psychology has potential utility in adolescent populations as nurturing adolescents' strengths and promoting well-being can equip young people to deal successfully with life's challenges in the present and in the future.

Parallel to increased interest in positive psychology has been increased emphasis on youth consultation methods. Youth consultation involves engaging young people in the decisions that affect them and is based on the assumption that young people are experts in what makes mental health programs motivating and youth appropriate (Australian Research

Alliance for Children and Youth, 2009; Powers & Tiffany, 2006). In addition to helping create mental health programs that are consistent with youth culture, youth consultation methods empower young people by giving them the opportunity to express their ideas and involving them in decision making (Oliver, Collin, Burns, & Nicholas, 2006).

Aims of the Current Research

Despite substantial interest, thus far research in PPIs and adolescent mental health is in the developing stages. While there has been substantial research into interventions that aim to prevent and treat mental illness (e.g., depression and anxiety prevention programs that use cognitive behavioural therapy and/or social and emotional learning frameworks) (Greenberg et al., 2003; Horowitz & Garber, 2006) research that investigates interventions *explicitly* aimed at enhancing mental health and well-being are less common (Huppert & Johnson, 2010). Furthermore, adolescence is a unique period of physical, cognitive, neurological, social, and psychological transition that should be considered distinct from childhood and adulthood (Christie & Viner, 2005). Therefore, research that explores strategies for promoting well-being and mental health in adolescent samples is imperative.

The first aim of this research was to combine existing research in positive psychology with youth consultation methods to create PPIs for adolescents. Consistent with youth consultation frameworks, adolescents' ideas and recommendations were canvassed and integrated at two stages of the intervention development process. Incorporating young people's ideas was aimed at creating PPIs that were appealing to adolescents thereby increasing the chance that young people would use the positive psychology strategies and derive maximal well-being benefits. The second aim was to test the effectiveness of the PPIs in a school-based randomised controlled trial (RCT). More specifically, the aim was to

explore whether exposure to positive psychology would make a meaningful and sustainable impact on adolescents' mental health relative to a usual care control condition.

Summary of Core Stages

This thesis consists of six core stages: (a) a review of the literature; (b) a quantitative study that explored positive psychology predictors of adolescent mental health (i.e., the predictors of mental health study); (c) a qualitative youth consultation process that canvassed young people's recommendations on how to make mental health programs engaging; (d) PPI development; (e) a second youth consultation process and PPI refinement; and (f) a RCT testing the effectiveness of the PPIs in a school setting. A flow chart that visually depicts the stages of this research is included in Appendix A.

Literature Review

The literature review provides a comprehensive overview of positive psychology and adolescent mental health. The first aim was to introduce positive psychology and provide a rationale for applying positive psychology with adolescents. The second aim was to review research on core positive psychology variables and discuss their relevance to adolescent populations. The third aim was to explore methodological and conceptual considerations related to the application of positive psychology with adolescents. One of the key outcomes of the literature review was the identification of variables (i.e., hope, gratitude, strengths use, and orientations to happiness) that formed the framework of the predictors of mental health study and the PPIs. The review paper, titled *Positive Psychology and Adolescents: Where are we Now? Where to from Here?* was published in the *Australian Psychologist* in 2009.

Predictors of Mental Health Study

The predictors of mental health study explored the associations between positive psychology variables identified during the literature review and positive (i.e., life satisfaction and positive affect) and negative (i.e., negative affect, depression, and anxiety) indicators of mental health. A sample of Australian adolescents (N = 114) self selected into the study and completed an online battery of questionnaires. Relative contributions of the positive psychology variables were compared in order to explore which of these were the strongest and most consistent predictors of mental health. The associations between variables were explored via multiple regression analyses and critically discussed in Publication 2 (i.e., *Predicting Adolescent Mental Health using a Positive Psychology Framework*). In addition, results of this study were combined with existing data to develop the PPIs. The chapter titled *Intervention Development* outlines this process in more detail.

Youth Consultation – Phone Interviews

Based on a youth consultation model, phone interviews were conducted to obtain young people's advice and recommendations on how to create engaging and motivating mental health programs. Adolescents who took part in the predictors of mental health study were invited to take part in a phone interview. Twenty eight adolescents (aged 14 to 17) completed interviews that focused on: (a) their general ideas for creating engaging and appealing mental health programs; and (b) more specific suggestions for mental health program format and delivery. The content of the first topic of the interviews was analysed formally by two independent researchers using NVivo thematic analysis. Results and implications were explored in Publication 3, *Collaborating with Adolescents to Develop Innovative and Relevant Approaches to Youth Mental Health*. Participants' specific

recommendations about the program format and delivery were informally explored and used in developing the PPIs.

Intervention Development

Results of study one (both quantitative and qualitative stages) were combined with existing research to develop two PPIs for adolescents. The first PPI, the full life intervention, was a multi-component workshop that aimed to help adolescents to: (a) develop skills in identifying and applying their strengths; (b) explore sources of pleasure, engagement and meaning in life; (c) nurture positive relationships through gratitude and kindness; and (d) facilitate hope through setting goals. The initial aim was to compare the full life intervention with a placebo control condition. However, challenges in developing an inert placebo resulted in a decision to create a comparison condition that used a more narrow approach to promoting mental health than the full life intervention. Therefore, the second PPI, the simple pleasures intervention, aimed to teach young people skills in appreciating and savouring life's simple pleasures. The PPIs consisted of a day long workshop plus two weeks of practice activities. More information on the intervention development process, and the rationale behind creating the two PPIs, is provided in the chapter titled *Intervention Development*.

Youth Consultation - Panel Study

Once the interventions were drafted, a second consultation process, namely the panel study, was conducted to obtain adolescents' recommendations about specific details of the PPIs. More specifically, the aim of the panel study was to ensure that elements and examples used in the PPIs (e.g., case studies, music, and YouTube clips) were consistent with youth culture. Fifty seven adolescents (aged 14 to 17) completed an online battery of

questionnaires asking for their ideas and recommendations for the PPIs. For example, participants were asked to recommend songs that depicted core positive psychology concepts. Subsequently, adolescents' ideas and suggestions were used to finalise the PPIs. More information on the panel study is provided in the chapter titled *The Panel Study and Introduction to the Randomised Controlled Trial*.

Randomised Controlled Trial

The final stage of this research was a RCT of the effectiveness of the two PPIs. Year 10 students ($N = 90$; M age = 15.22; $SD = .54$) from a Melbourne secondary school were randomly allocated to one of three conditions: (a) the full life condition; (b) the simple pleasures condition; and (c) a usual health comparison condition. The PPIs were delivered by trained members of the school staff. Mental health and well-being outcomes were measured pre-intervention, post-intervention, and at a follow-up time point two months post-intervention. Results and implications of this study are discussed in Publication 4, *A Randomised Controlled Trial of School-based Positive Psychology Interventions*.

Integrated Discussion and Conclusions

The aims of the integrated discussion were to draw together the various components of this thesis and to discuss practical and theoretical implications of the research findings. Important directions for future research include: (a) increased exploration of individual, motivational, and developmental factors that influence how young people engage with well-being concepts; and (b) further exploration of how positive psychology relates to other preventative frameworks such as social and emotional learning and cognitive behavioural therapy. Furthermore, the value of holistic and systemic approaches that support young

people's well-being in several life domains (i.e., family, school, and community) are emphasised.

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Nature of contribution	Extent of contribution
Collaborated on the conceptualisation of the paper. Reviewed the existing literature. Wrote and edited initial and subsequent drafts of the publication.	

The following co-authors contributed to the work:

Name	Nature of contribution
Dianne Vella-Brodrick	Collaborated on the conceptualisation of the paper and provided guidance and feedback throughout all stages of writing and editing.

Candidate's Signature		Date
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Declaration by co-author:

The undersigned hereby certify that:

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Positive psychology and adolescents: Where are we now? Where to from here?

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Abstract

The purpose of this paper was to integrate literature on positive psychology and adolescent well-being to provide a cohesive platform for future research and discussion. It is aimed at researchers, and mental health and educational professionals who are interested in the empirical evidence behind using positive psychology interventions with adolescents. The positive psychology concepts reviewed are: the authentic happiness theory, flow, hope, coaching, gratitude, kindness, and strengths-based interventions. Although positive psychology is only in its infancy, and more research in adolescent populations is needed, support for positive psychology interventions in fostering adolescent mental health is steadily accumulating.

Key words: *Adolescence, educational psychology, emotion and motivation, flourishing, strengths, well-being.*

The scientific study of what makes life worth living and the prospect of interventions aimed at enhancing the well-being of individuals has widespread appeal. Researchers have made important progress in the investigation of strengths, well-being, and happiness, resulting in a greater understanding of positive aspects of human experience (Diener, Lucas, & Napa Scollon, 2006; Fredrickson, 2001; Peterson & Seligman, 2004). A subsequent step is to consider how this knowledge can be applied to the wider population to make a worthwhile contribution to human life.

Teaching positive psychology concepts to young people potentially equips them with skills and knowledge that can have a lasting positive impact on their lives. Recently there have been increased calls to apply positive psychology in schools and youth-orientated settings (Chafouleas & Bray, 2004; Clonan, Chafouleas, McDougal, & Riley-Tillman, 2004; Terjesen, Jacofsky, Froh, & DiGiuseppe, 2004). Although teaching positive psychology concepts to adolescents is an attractive idea, more insight into the efficacy of such practices is needed. Therefore, the purpose of this paper was to provide a comprehensive review of positive psychology con-

cepts relevant to adolescent populations. More specifically, the aims were to: (a) introduce positive psychology and discuss the value of applying positive psychology with adolescents; (b) review key positive psychology concepts, outline evidence of their effectiveness, and discuss their relevance to adolescent populations; and (c) present recommendations to guide future research.

Introduction to positive psychology

Positive psychology is an umbrella term for work that investigates the conditions and processes that foster happiness, optimal functioning, and mental wellness in people (Gable & Haidt, 2005; Seligman & Csikszentmihalyi, 2000). The study of conditions that promote happiness and high functioning is not new (e.g., Jahoda, 1958; Maslow, 1954; Rogers, 1961). To date, however, scientific inquiry in psychology has focused more on the treatment of mental illnesses than on how individuals can be mentally well (Keyes & Lopez, 2005; Sheldon & King, 2001). For example, Myers (2000) performed a search of psychological abstracts since 1987 and found that articles on negative emotions (e.g., anger)

outweighed those on positive emotions (e.g., happiness) by a 14:1 ratio. Therefore, recently there has been increased efforts to investigate concepts such as happiness, human strengths, and flourishing with the aim of contributing to a more complete understanding of human experience (Norris & Vella-Brodrick, 2008).

Positive psychology is defined as a movement that seeks to create more understanding of human happiness and optimal functioning, by (a) synthesising and integrating previous and disparate lines of research and practice, and (b) encouraging new research on human strengths and the processes that foster human flourishing (Gable & Haidt, 2005; Linley, Joseph, Harrington, & Wood, 2006). Importantly, positive psychology does not assume that the rest of psychology is negative, but instead directs scientific attention to aspects of human experience that are not yet well understood (e.g., how individuals can become happier) (Gable & Haidt, 2005; Linley et al., 2006). In addition, positive psychology does not infer that those working in the field of mental health do not focus on the positive qualities of their clients. In contrast, it is hoped that it will result in increased communication of how professionals attend to the strengths of their clients so that such practices can be explored, assessed, and replicated.

Central concepts in the field of enhancing mental health are subjective well-being, psychological well-being, and flourishing. Subjective well-being (commonly referred to as happiness) has a cognitive component that concerns satisfaction with life, and an affective component that is divided into the presence of positive affect and the absence of negative affect (Diener, 2000). Psychological well-being posits that happiness comes from finding meaning, fulfilment, and psychological growth and to being true to one's *daimon* or real nature (Ryan & Deci, 2001). Ryff and Keyes (1995) have asserted that six factors contribute to psychological well-being: autonomy; personal growth; self-acceptance; purpose in life; environmental mastery; and positive relations with others.

Keyes (2005) proposed a model of complete mental health consisting of the presence of mental health (i.e., psychological, emotional and social well-being) and the absence of mental illness. Along the mental health continuum of this model an individual can be flourishing (i.e., functioning well in life), moderately mentally healthy (i.e., functioning moderately well in life), or languishing (i.e., not functioning well in life). In a study of 3,032 American adults, Keyes found that the presence of mental health (measured by positive affect, psychological well-being, and social well-being) and the absence of mental illness (measured by major

depressive disorder, alcohol dependence, panic disorder, and generalised anxiety disorder) constituted separate, but related, dimensions. Support for a two-factor model of psychological health was also found in a sample of 345 Australian adolescents aged 16–19 (Wilkinson & Walford, 1998).

Why positive psychology?

An assumption of positive psychology is that a fulfilling and happy life consists of more than an absence of mental dysfunction (Keyes, 2005). Like efforts in medical fields to help individuals attain good physical health (e.g., by promoting healthy diets and good exercise habits), it is believed that the scientific exploration of ways that individuals can improve their mental health and flourish is important (Keyes, 2007). According to Benson and Scales (2009) adequate functioning in adolescents (e.g., the absence of serious behavioural, psychological, and emotional problems) does not necessarily equate with thriving. Therefore, it is believed that psychologists and other health professionals have an important role in researching and communicating how well-being can be enhanced and how individuals can thrive and flourish (Seligman & Csikszentmihalyi, 2000).

In addition, the positive psychology approach posits that increasing well-being may prevent future mental health problems and have benefits for other life domains. Suldo and Huebner (2004) investigated life satisfaction, life events, and externalising (i.e., delinquent and aggressive behaviours) and internalising behaviours (i.e., depression, anxiety, withdrawal, and somatic complaints) in a sample of 816 American adolescents at two time points, 1 year apart. Adolescents who reported high life satisfaction at Time 1 had less chance of developing externalising behaviour problems after a stressful life event than adolescents who reported low life satisfaction. Similarly, in a sample of 397 adolescents, Howell (2009) found that adolescents categorised as flourishing reported higher academic achievement and performance (e.g., higher school grades, higher self-control, and lower procrastination) than those categorised as moderately mentally healthy or languishing. Hence, it appears that individuals who flourish, experience desirable outcomes and avoid undesirable outcomes in comparison to adolescents who report moderate or poor mental health.

Why adolescents?

In a national survey investigating a range of mental health issues in a stratified, random sample of 4,500 Australian youths (aged 4–17), 14.0% of those surveyed were found to have mental health problems

(Sawyer et al., 2000). While this high prevalence rate is cause for concern, the number of adolescents who are not flourishing may be higher still. Tucci, Mitchell, and Goddard (2007) conducted an online study of 600 Australians (aged 10–14) and found that 46% of respondents did not feel confident or secure in themselves, 54% were worried about not fitting in, and 40% felt like they were not performing well enough. Similarly, in a study of 1,234 US adolescents (aged 12–18), Keyes (2006) found that more youth were moderately mentally healthy (i.e., reported average emotional, psychological, and social well-being) than were flourishing (i.e., reported high emotional, psychological, and social well-being). So while many adolescents are not in the clinical range for poor mental health, a large proportion are reporting mental health issues. This supports the investigation of how adolescents who are only moderately mentally healthy can pursue a more optimal condition of flourishing.

Where are we now

The next goal of this paper is to review concepts relevant to the enhancement of adolescent mental health. Although a review of all relevant concepts is beyond the scope of this paper, the aim is to provide insight into some of the key research directions in the field. The concepts that will be reviewed are: (a) the authentic happiness theory; (b) engagement and flow; (c) hope and coaching; (d) gratitude and kindness; and (e) strengths-based interventions.

Authentic happiness

According to Seligman's (2002) authentic happiness theory there are three primary avenues for pursuing happiness (referred to as orientations to happiness): (a) pleasure, (b) engagement, and (c) meaning. The pleasant life results when individuals maximise pleasant and positive experiences. The engaged life results when individuals are engaged in activities they are passionate about. The meaningful life results when individuals take part in activities that contribute to the greater good.

The authentic happiness model has not been empirically examined in adolescent samples. However, research exploring orientations to happiness with adult samples found engagement and meaning to have moderate, positive correlations with life satisfaction, and pleasure to have a positive but weaker correlation with life satisfaction (Peterson, Park, & Seligman, 2005; Vella-Brodrick, Park, & Peterson, 2008). In addition, respondents low on all three orientations have been found to have low life satisfaction, while respondents high on all three

orientations have been found to have high life satisfaction. Although these studies were of a correlational design and hence, causation cannot be established, it is conceivable that helping individuals to live a full life, by facilitating increases in engagement and meaning, may increase well-being. Examining this causal relationship seems the logical next step. Subsequently, developing and examining well-being interventions has been a focus for many positive psychology scholars.

Based on the model of authentic happiness, Seligman, Steen, Park, and Peterson (2005) designed and tested five Internet-based positive psychology interventions. More specifically, 577 adults were randomly assigned to one of six conditions: (a) conducting a gratitude visit; (b) identifying three good things about their lives each day; (c) identifying times when they were at their best; (d) identifying strengths and virtues; (e) using strengths and virtues in a new way; and (f) documenting early memories (placebo control condition). Participants in all conditions (including the placebo control) reported greater happiness and less depression post-intervention. Participants who were instructed to identify three good things and participants who were instructed to use their strengths in a new way reported higher happiness and lower depression 6 months after the intervention, compared to the placebo control. The gratitude visit activity was found to have positive effects compared to the placebo control 1 month after the intervention. Statistical analyses examining whether the six groups were equal on demographic variables (e.g., age, gender, ethnicity) and pre-intervention happiness and depressive levels were not reported.

Flow and engagement

According to Csikszentmihalyi (1990), flow is a state of engagement, optimal happiness, and peak experience that occurs when an individual is absorbed in demanding and inherently motivating challenges (for a comprehensive review on flow see Nakamura & Csikszentmihalyi, 2005). Flow facilitates concentration, absorption, and a loss of a sense of time, which are worthy goals in learning environments. A strength of research into flow is the frequent use of the experience sampling method (ESM), which avoids biases in retrospective reporting by assessing well-being measurements at different time points and summing them to obtain an overall assessment. For example, Hunter and Csikszentmihalyi (2003) used the ESM to compare the experiences of youth who were interested and engaged in everyday life with those who were bored and restless ($N = 1,215$). They found that interested participants had greater self-esteem, optimism, and internal locus of control and

lower pessimism than bored participants. This finding suggests that flow and engagement have positive consequences for adolescent well-being.

Using the ESM, Shernoff, Csikszentmihalyi, Schneider, and Steele Shernoff (2003) conducted a 5-year longitudinal study in a sample of 526 US high school students. They found that engagement and attention were highest when there was a balance between challenge and skill, the task was personally important to the individual, and when students were in control of the situation, (e.g., during examinations and group work activities). Disengagement and inattention were found when students were undertaking activities that lacked challenge and were not personally important to the individual (e.g., when information was provided via lecture or TV/video format). Although this study focused on the activities that promote flow, an examination of whether external factors (e.g., the characteristics of the teacher), or internal factors (e.g., gender, age, personality, or academic performance), influenced the results would have been worthwhile.

Hope

Snyder (1995) has defined hope as a cognitive process with three factors: goals, pathways (i.e., specific strategies to work towards goals), and agency (i.e., motivation to implement the strategies) (for a discussion on the validity of hope as a psychological construct see Edwards, Rand, Lopez, & Snyder, 2007). Snyder, Lopez, Shorey, Rand, and Feldman (2003) have suggested that hope can be nurtured by setting goals that are intrinsically motivating, developing pathways by dividing large goals into smaller steps, and increasing agency by working in teams and using stretch goals (i.e., goals that are progressively more challenging). High levels of hope have been consistently linked with higher academic outcomes, better physical health, and better psychological adjustment (e.g., increased optimism, perceived competence, self-esteem, and decreased depression) (Snyder, 2002; Snyder et al., 2003).

Valle, Huebner, and Suldo (2006) investigated hope and life satisfaction in 860 US students aged 10–18 years ($M = 13.74$, $SD = 1.81$) at two time points, 1 year apart. Adolescents with high hope at the first time point reported higher life satisfaction at the second time point, even after initial life satisfaction was controlled for. Adolescents with high hope at the first time point also had fewer internalising behaviours at the second time point, however, there was no significant result for externalising behaviours. In addition, hope was a significant moderator in the relationship between stressful life events and life satisfaction, and the relationship between stressful life events and internalising behaviours, suggesting

that adolescents who engage in hopeful thinking are better at coping when negative events occur.

While hope has been consistently associated with high well-being and good psychological adjustment, there are few studies that have investigated the impact of teaching strategies for increasing hope to individuals. In one pilot study, Cheavens, Feldman, Gum, Michael, and Snyder (2006) randomly allocated 32 participants to a group hope intervention or a wait-list control condition. The hope intervention focused on teaching participants to set appropriate goals and develop and monitor pathways towards their goals. There were no significant differences in hope, depression, anxiety, self-esteem, or purpose in life between the groups before the intervention. After the intervention, participants in the hope therapy group demonstrated increased agency, increased self-esteem, higher reports of life meaning, and decreased symptoms of depression and anxiety compared with participants in the control group. While this study provides preliminary evidence that increasing hope has benefits for well-being, future research with larger samples is needed. Furthermore, participants in that study reported high pre-intervention levels of psychological distress, depression and anxiety, which limits the generalisability of the results to non-clinical samples.

Coaching

With a similar focus on goal achievement, life coaching uses solution-focused and results-orientated strategies (Grant, 2003). Recent endeavours to empirically assess coaching programs have yielded promising results. For example, Grant found that a 10-week, group adult coaching program ($N = 20$) was related to increased goal attainment and quality of life and decreased stress, anxiety and depression. Grant recommended that future research investigates the impact of coaching using a control group and random assignment of participants to control and treatment conditions. Subsequently, Green, Grant, and Rynsaardt (2007) evaluated the efficacy of a cognitive behavioural, solution-focused life coaching program using a randomised, wait-list controlled trial of 56, self-selected, Australian, female high school students, with coaching administered one on one by a trained teacher-coach. They found that students in the life coaching condition had increased cognitive hardiness and hope and decreased depression relative to controls, however, no significant differences were found between groups on measures of anxiety or stress. Future research could investigate the efficacy of coaching using a placebo control to account for the beneficial effects of sustained attention from an adult figure.

Gratitude and kindness

Numerous positive psychology interventions focus on the cultivation of specific values such as gratitude and kindness. For example, empirical studies have found a positive association between gratitude and well-being and that manipulating individuals' gratitude levels results in increased reports of well-being (e.g., Adler & Fagley, 2005; Emmons & McCullough, 2003; Polak & McCullough, 2006).

Gratitude is defined as an individual's tendency to react to the benevolence and kindness of others with grateful or thankful emotions (McCullough, Emmons, & Tsang, 2002). In a study of gratitude and adolescent well-being, Froh, Sefick, and Emmons (2008) randomly assigned classes of students ($N=221$) to a 2-week gratitude condition (which involved participants recalling things in their lives for which they were grateful), a hassles condition (which involved recalling daily stressors), and a non-treatment control condition. Participants assigned to the gratitude condition had higher optimism, life satisfaction, and satisfaction with school experience than participants assigned to the hassles or control conditions at post-intervention and at 3-week follow-up assessment. A strength of the study was that the intervention was administered by teachers (as opposed to research staff), which facilitated an examination of the effectiveness of the intervention in real-life conditions. Furthermore, efforts were made to keep the teachers blind to the research conditions and study hypotheses (although this was not possible in one case), decreasing the chance that the teachers' expectations influenced the study outcomes. Future research, however, could examine whether the findings are replicated when a gratitude condition is compared to a more neutral control condition (e.g., recalling daily events), because it is possible that paying attention to daily hassles induces negative affect and may therefore have a detrimental effect on well-being.

Kindness is defined as taking part in helping behaviours motivated by feelings of altruism, generosity and compassion (Peterson & Seligman, 2004). In two studies of 175 and 119 Japanese participants, Otake, Shimai, Tanaka-Matsumi, Otsui, and Fredrickson (2006) found that people with high reports of kindness also reported higher happiness and more happy memories than people with low reports of kindness. Furthermore, Otake et al. found that female participants allocated to a 1-week kindness counting condition (i.e., that required participants to pay attention to their kind behaviours) had increased happiness compared with participants in a non-intervention control group. The age of participants in these studies was young, (i.e., $M=19.1$ years, $SD=1.10$; and $M=18.7$ years, $SD=0.77$), which

suggests that this finding may be relevant for adolescent samples, however, future research could confirm this.

Strengths

A strengths approach is based on the premise that each individual has unique strengths that can be used to enhance well-being. With the objective of creating a framework for considering strengths in a systematic manner, Peterson and Seligman (2004) created the Values in Action (VIA) classification of character strengths consisting of the strengths of wisdom and knowledge (e.g., creativity, curiosity, open-mindedness, love of learning, and perspective); courage or the emotional strengths (e.g., bravery, persistence, integrity, and vitality); humanity or the interpersonal strengths (e.g., love, kindness, and social intelligence); justice or the civic strengths (e.g., citizenship, fairness, and leadership); the strengths of temperance (e.g., forgiveness, modesty, prudence, and self-regulation); and the strengths of transcendence (e.g., appreciation of beauty and excellence, gratitude, hope, humour, and spirituality). Preliminary evidence suggests that the 24 character traits included in the VIA are present in a variety of cultures (Biswas-Diener, 2006).

Peterson, Ruch, Beermann, Park, and Seligman (2007) investigated character strengths, orientation to happiness, and life satisfaction in samples of 12,439 US and 445 Swiss adult participants and found that love, hope, curiosity, and zest had high correlations with life satisfaction in both samples. The strengths that were found to have the highest correlations with life satisfaction also had high correlations with pleasure, engagement, and meaning orientations to happiness, leading the authors to conclude that strengths that are associated with life satisfaction are those that enable a full life. Similarly, there is evidence that adolescents' strengths protect them against developing mental health problems. In a study of 688 adolescents, Bromley, Johnson, and Cohen (2006) found that adolescents (aged 16) with high scores on a measure of strengths were less likely to experience interpersonal difficulties, violent and/or criminal behaviour, and negative psychiatric outcomes 6 years later. Strengths were found to protect against the development of mental health problems even if the participant experienced two or more negative life events.

In addition to benefits for well-being, experts suggest that encouraging students to identify their strengths increases academic performance and classroom engagement (Gordon, 2006). Austin (2005) compared educational outcomes in 255 students in a 6-week strengths condition with 272 students in a standard curriculum control condition. Students

were randomly assigned to either the strengths condition or the control condition. Students in the strengths condition completed the Gallup Clifton Strengths Finder to discern their top five strengths and participated in strengths development activities such as sharing their strengths with friends and family and writing about their strengths in diaries. Chi-square tests indicated that the control and experimental groups did not statistically differ on ethnicity, parental education levels, gender or socio-economic status. Austin found that students in the strengths condition had significantly higher academic expectations, efficacy, self-empowerment, extrinsic motivation, and perceptions of ability after the intervention compared with students in the control condition. Collecting pre-intervention measures of the academic outcome variables would have allowed an examination of whether the groups differed before the interventions, and allowed changes to be tracked from pre to post-intervention.

Where to from here

Recommendations for future research

Because research on positive psychology and adolescent mental health is still in the formative stages, there are some opportunities to undertake research that will significantly progress the field. In particular, because the majority of research thus far has used adult samples, it is important to investigate whether findings can be replicated in adolescent populations. For example, it would be interesting to examine Seligman's (2002) authentic happiness model in adolescent samples, and to assess whether an individuals' predisposition towards pleasure, engagement, and meaning orientations to happiness change over time and during different life stages.

Similarly, a priority is to develop, test, and refine positive psychology interventions so that they cater specifically for adolescents. An example of this is Froh et al.'s (2008) study where previous work on gratitude and well-being was replicated with an adolescent sample. Research investigating the consequences of manipulating other variables such as flow, hope, and kindness in adolescent samples, or examining the effects of individual difference variables (such as orientations to happiness or character strengths) and the efficacy of various interventions, would be valuable. A useful goal for research would be to develop and test an intervention based on several positive psychology principles via a randomised controlled trial to assess whether positive psychology is successful in increasing individuals' well-being over time and whether it has benefits for other life domains such as interpersonal relations and academic performance.

As positive psychology research progresses, there are several methodological and conceptual considerations that need to be taken into account. In particular, to date, the majority of positive psychology studies have compared positive psychology interventions with non-intervention, or wait-list controls (e.g., Cheavens et al., 2006; Otake et al., 2006). Future research should include placebo controls to account for the beneficial effects that group membership and/or attention from adults can have on adolescent well-being. Furthermore, placebo controls are especially important because individuals may be attracted to positive psychology due to a desire to become happier, and therefore may have preconceived expectations of increased well-being (Seligman et al., 2005).

A significant gap in the positive psychology literature is the lack of longitudinal studies. Given that a fundamental goal of teaching positive psychology to adolescents is to teach them skills and behaviours that can have a positive effect over the life course, future research is needed to ascertain whether benefits are sustained over time. Similarly, longitudinal research is needed to examine the causal direction between variables such as life satisfaction, orientations to happiness, and functioning well in life. In particular, research that investigates whether life satisfaction and well-being predict long-term functioning (e.g., mental and physical health, and academic and career outcomes) would give support to interventions and programs aimed at increasing well-being, and support the notion that adolescents with moderate mental health should be encouraged to pursue more optimal conditions of flourishing.

Key conceptual considerations

As research in positive psychology progresses, it is important to address key conceptual considerations, to explore how positive psychology fits with other frameworks, and to synthesise and integrate various lines of research and practice (Linley et al., 2006). For example, Kashdan, Biswas-Diener, and King (2008) call for more precision in the definitions of key well-being concepts and clearer conceptualisation of how concepts overlap. Similarly, Froh (2004) and Jørgensen and Nafstad (2004) call for increased recognition of the historical and philosophical foundations of positive psychology.

Positive psychology aims to contribute to a comprehensive approach to mental health by adding an investigation of positive emotions and human strengths to existing knowledge on mental illness and dysfunction. Therefore, as research in positive psychology emerges, it is essential to consider how positive psychology interventions fit with existing

frameworks and practices (e.g., counselling psychology, humanistic psychology) (Mollen, Ethington, & Ridley, 2006; Taylor, 2001). For example, in school settings, an investigation of how positive psychology strategies can be used to complement and reinforce existing social and emotional learning programs that aim to teach young people skills such as conflict resolution, problem solving, and recognising and dealing with emotions would be useful. In order to achieve a holistic approach to mental health it is essential that positive psychology interventions are used in combination with, not instead of, existing initiatives that seek to relieve and treat mental health problems. In sum, positive psychology is not meant to replace traditional psychology practices, but can provide additional tools for health professionals to use if and when appropriate.

Another important consideration in a holistic approach to mental health is how to promote happiness and increased life satisfaction without insinuating that negative emotions are detrimental or should be avoided. It is important to remember that adverse life experiences often hold potential for significant psychological growth (Linley & Joseph, 2004). Similarly, negative emotions have been found to have some benefits over positive emotions such as superior accuracy of event recollections (Forgas, Laham, & Vargas, 2005). Moreover, striving for increased happiness and fulfilment may cause distress if it makes individuals compare their current life situation to potentially unachievable standards of happiness or if feelings of guilt emerge in response to the experience of normal negative emotions (Held, 2004). Balancing the promotion of positive emotions with an acceptance of negative emotions requires careful management on the part of practitioners and professionals. For example, identifying and developing strengths should not be equated with an avoidance of weaknesses, but with an increased ability to respond to challenges. Similarly, increasing or intensifying pleasure, engagement, and meaning does not mean avoiding sadness or distress, but can lead to an increased capacity to reflect on the positive aspects of life when negative emotions are encountered, thus serving as a coping mechanism.

Summary and conclusions

The purpose of this paper was to provide an overview of the literature for individuals (e.g., researchers, educators, and mental health professionals) who are interested in the evidence behind applying positive psychology with adolescents. Keyes's (2005) model of complete mental health and the proposition that individuals who are not necessarily mentally ill may not be flourishing, supports efforts to increase the mental health of adolescents, not just those with

mental health problems. Furthermore, improving the mental health of individuals during adolescence can have positive lasting effects if they learn skills and behaviours that can be applied across the life course.

Although further research using adolescent samples is required, there is steadily accumulating evidence for the effectiveness of positive psychology interventions. The next step is to consider how this knowledge can be added to existing mental health practices to contribute to a holistic approach to mental health. For example, the possibility of integrating positive psychology in clinical settings is yet to be fully explored but, according to Cox (2006), even youth with severe behavioural and emotional problems have strengths that can be useful in recovery. Similarly, positive psychology may have potential utility in fostering mental health and engagement in school settings. For example, Geelong Grammar School in Australia is introducing positive psychology into the school culture with the aim of increasing student and school staff resilience, well-being, and engagement (Geelong Grammar School, 2008).

An important theme in positive psychology is the exploration of qualities that are authentic to the individual. For example, in hope theory, individuals brainstorm goals that are intrinsically motivating (Snyder et al., 2003). Similarly, the aim of identifying signature strengths is to find strengths that feel authentic and natural to the individual (Peterson & Seligman, 2004). Finally, flow results when an individual is participating in an inherently motivating challenge (Csikszentmihalyi, 1990). Therefore, positive psychology does not seek to promote a one-size-fits-all approach to well-being, but to help individuals discern what makes their lives pleasurable, engaging, and meaningful. Nurturing qualities that are authentic to the individuals is especially important in work with adolescents, where flexibility is needed while adolescents undergo changes as they emerge into adulthood.

The positive psychology approach posits that individuals can develop engagement and meaning in their lives by, for example, knowing and applying their strengths in creative and meaningful ways, and being grateful for the past and hopeful about the future. The benefits are potentially twofold in that (a) well-being is enhanced; and (b) resilience to life challenges is heightened. Importantly, the goal of positive psychology is not to avoid negative emotions or personal distress, but to help individuals to use their strengths and recognise and feel that life is worthwhile so that when they encounter adversities in life, they can draw on these inner resources. As increased knowledge of human strengths and positive emotions is added to existing knowledge on human illness and dysfunction, the result is a more holistic understanding of mental health.

In conclusion, if research-based interventions are applied in a systematic and considered manner, positive psychology has the potential to make a valuable contribution to adolescent mental health.

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Chapter 3: Adolescent Development and Introduction to the Predictors of Mental Health

Study

This thesis aimed to develop and test two PPIs for adolescents. During the literature review it was identified that there is a lack of research exploring key positive psychology variables in adolescent samples (Norrish & Vella-Brodrick, 2009). More specifically, while some positive psychology variables (e.g., hope and gratitude) have been explored quite thoroughly in adolescent samples (Froh, Sefick, & Emmons, 2008; Snyder, Lopez, Shorey, Rand, & Feldman, 2003) other variables (i.e., strengths use, and pleasure, engagement and meaning orientations to happiness) have received only limited empirical investigation. Furthermore, research exploring multiple positive psychology variables simultaneously is scarce, hence a comparison of their relative contributions to adolescent mental health is not possible. Therefore, an exploratory study into the positive psychology predictors of adolescent mental health seemed appropriate. The aims of this chapter are to: (a) explore important developmental differences between adolescents and adults that may influence how young people engage with positive psychology frameworks; and (b) introduce the predictors of mental health study.

Adolescent Development

Adolescence, defined as the period of life between 12 and 17 years, is a time of dramatic transition and change (Commonwealth Department of Health and Ageing, 2000). It involves an individual reaching reproductive capacity and moving from being largely dependent on family towards increased independence and autonomy. The most significant physical changes of adolescence correspond with puberty and are characterised by: (a)

dramatic growth and formation of an adult body shape; (b) development of reproductive ability and primary and secondary sexual characteristics; and (c) increases in estrogens and androgens (i.e., the sex hormones) (Christie & Viner, 2005). These biological changes relate to increased sexual drive and the formation of a sexual identity (Petersen, Leffert, & Graham, 1995). Successful development requires adaptation to biological, psychological, and social changes including the negotiation of new relationships and the formation of a positive body image (Siegel, Yancey, Aneshensel, & Schuler, 1999).

Adolescence is also a time of significant changes in cognitive functioning. The executive functioning centre of the brain that accounts for capacities in meta-cognition (e.g., planning and organising), abstract thinking, and reasoning is less developed in adolescents compared with adults (Kuhn, 2009). Therefore, relative to adults, adolescents' have less impulse control, decreased ability to regulate their behaviour, and less pronounced perception of risks and rewards (Steinberg, 2005). Adolescent brains are also characterised by neural plasticity making young people especially able to learn new skills and information (Kuhn, 2009).

In terms of emotional development, adolescence is characterised by heightened emotionality and an increased desire for affective experiences (Casey, Jones, & Hare, 2008). Increased emotionality combined with still developing impulse regulation can lead to novelty seeking and problematic choices such as risk taking, substance abuse, and unsafe sexual behaviour (Hessler & Katz, 2010; Kelley, Schochet, & Landry, 2004). Therefore, an important developmental task of adolescence is the formation of emotional competence or the ability to cope with emotions and express them in a healthy manner (Buckley & Saarti, 2009).

Important psychological tasks of adolescence are developing autonomy (or working towards independence from adult caregivers) and individuation (or developing a unique self concept and view of the world) (Steinberg & Morris, 2001). While increased independence from parents/carers is a common feature of adolescence, research suggests that strong parent-adolescent relationships can be maintained and are protective against mental pathology and adverse choices (Hutt, Wang, & Evans, 2009). As adolescence progresses, the role of the peers in young people's lives becomes more salient and there is often an increased focus on intimate relationships (Christie & Viner, 2005). Furthermore, adolescence is often a time of self reflection and searching for meaning which helps an individual to develop a unique moral and value system (Eisenberg, Morris, McDaniel, & Spinrad, 2004).

Bronfenbrenner's (2005) bioecological systems theory posits that an individuals' development is shaped and influenced by complex interactions between layers of the environment. The first layer or microsystem contains the structures that the individual interacts with frequently such as family, school, and the community. The mesosystem involves the connections between microsystem variables (e.g., between the school and family) whereas the exosystem refers to the larger social system (e.g., the neighbourhood, parent/carer work places). The broader macrosystem consists of the cultural and political factors that influence the adolescent's development (e.g., customs, laws). While this thesis focuses on elements of the microsystem, it is important to acknowledge that there are multiple complex factors (and interactions between factors) that influence adolescents' development.

The Predictors of Mental Health Study

Consistent with the premise that mental health is more than the absence of mental illness (Keyes, 2005), mental health was conceptualised as consisting of both positive indicators (i.e., life satisfaction and positive affect) and negative indicators (i.e., negative affect, anxiety, and depression). The positive psychology variables that were identified and discussed during the literature review (i.e., hope, gratitude, strengths use, and pleasure, engagement, and meaning orientations to happiness) were explored as predictor variables. The specific aims of this study were to: (a) explore whether hope, gratitude, strengths use, pleasure, engagement, and meaning predicted variance in adolescent mental health; and (b) compare the relative contributions of these positive psychology variables.

Ethics approval was granted from the Monash University Human Research Ethics Committee (see Appendix B). Participants were recruited via Australian youth organisations (e.g., sporting clubs, multicultural centres, outdoor education groups) and listserves (e.g., the Australian Youth Information Network, YouthGas). Adolescents self selected into the study resulting in a sample of 114 adolescents (aged 14 to 17). Regression analyses were used to explore relationships between positive psychology predictors and mental health criterion variables (see Appendix C for explanatory statements and consent forms and Appendix D for relevant questionnaires).

The benefits of this study were two-fold. First, the results, and theoretical and practical implications are discussed in Publication 2, *Predicting Adolescent Mental Health Using a Positive Psychology Framework*. Second, variables that were found to be the strongest predictors of mental health formed the core focus of the full life intervention.

More information on this process is provided in the chapter titled *Intervention Development*.

PLEASE REPLACE THIS PAGE WITH THE SIGNED DECLARATION 4.

Declaration by candidate: In the case of Chapter 4, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Collaborated on the development of the study design. Collaborated on the selection of measures. Recruited participants and collected data. Collated data and analysed results. Wrote initial and subsequent drafts of the publication.	80%

The following co-authors contributed to the work:

Name	Nature of contribution
Dianne Vella-Brodrick	Collaborated on the development of the study design. Contributed to the selection of measures and data analytic techniques. Provided ongoing guidance and feedback throughout all stages of writing and editing.

Candidate's Signature

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Declaration by co-author:

The undersigned hereby certify that:

- (1) the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.
- (2) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;
- (3) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;
- (4) there are no other authors of the publication according to these criteria;
- (5) potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and
- (6) the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

Location

School of Psychology and Psychiatry, Monash University.

Signature

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Chapter 4: Predicting Adolescent Mental Health using a Positive Psychology Framework

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Abstract

This study assessed the extent to which hope, gratitude, strengths use, pleasure, engagement, and meaning predicted adolescent mental health. Mental health was operationalised as consisting of positive (e.g., life satisfaction and positive affect) and negative (negative affect, depression, and anxiety) indicators. A sample of 114 Australian adolescents (aged 14 to 17) completed a battery of questionnaires. Multiple regression analyses found that positive psychology variables predicted variance in all mental health outcome variables. Gratitude and strengths use were the most consistent predictors of negative mental health indicators. With regard to the positive indicators of mental health, hope and gratitude significantly predicted life satisfaction, whereas hope, strengths use, and engagement significantly predicted positive affect. This research supports the application of positive psychology in youth and school settings but underscores the importance of further experimental and longitudinal research exploring how positive psychology variables relate to mental health at different stages of development.

Key words: adolescence; positive psychology; subjective well-being; mental health; strengths; gratitude.

Recent developments in psychology have seen a move away from a primary focus on psychopathology towards more comprehensive definitions of mental health. Increasingly, mental health is conceptualised as the presence of well-being in addition to the absence of mental illness (Keyes, 2005; Obradović, van Dulmen, Yates, Carlson, & Egeland, 2006). Moreover, research in subjective well-being, defined as overall satisfaction with life, and levels of positive and negative affect, has burgeoned over the last decade (Diener, Lucas, & Oishi, 2005; Gilman & Huebner, 2003). This shift towards more inclusive definitions of mental health coincides with the emergence of positive psychology which is a scientific movement aspiring to develop knowledge of positive emotions, human strengths, well-being, and optimal functioning (Gable & Haidt, 2005; Linley, Joseph, Harrington, & Wood, 2006).

One area of growth has been the use of positive psychology with adolescents and in educational settings (Chafouleas & Bray, 2004; Gilman, Huebner, & Furlong, 2009). The application of positive psychology with youth is based on the premise that teaching young people mental health promotion skills can be beneficial over the lifespan (Norrish & Vella-Brodrick, 2009). There are several reasons why applying positive psychology with youth is an attractive idea. First, the prevalence of mental health problems in adolescence is consistently reported as being high (Ford, Goodman, & Meltzer, 2003; Slade, Johnston, Browne, Andrews, & Whiteford, 2007). Second, adolescents who are not in the clinical range for mental health problems (but with low subjective well-being), demonstrate less ideal adjustment, such as inferior social and academic outcomes, than those with high subjective well-being (Suldo & Shaffer, 2008). Third, enhancing youth life satisfaction and well-being may protect young people from developing pathology when adverse events

occur and therefore have a beneficial effect throughout the lifespan (Proctor, Linley, & Maltby, 2009). Fourth, promoting happiness and helping young people to flourish and thrive is an important goal in itself (Benson & Scales, 2009; Waterman, 2005).

While the idea of promoting positive psychology with adolescents is promising, thus far research is only in the formative stages. In a meta-analysis of 51 positive psychology intervention (PPI) studies, only three focused on children or adolescents (Sin & Lyubomirsky, 2009). Furthermore, Sin and Lyubomirsky found the success of PPIs to increase linearly with age (i.e., mean r effect sizes of .14 for children/adolescents compared with .23 to .50 for older age groups) underscoring the limits of generalising the results from adult to adolescent populations and emphasising the importance of examining positive psychology variables in younger samples.

Key variables in positive psychology include: hope, gratitude, strengths use, and pleasure, engagement, and meaning orientations to happiness. Hope is a cognitive motivation process consisting of goals, pathways to achieve the goals, and motivation to implement the pathways (Snyder, 2002). Hope has been consistently associated with good mental health (for reviews see Snyder, 2002; Snyder, Lopez, Shorey, Rand, & Feldman, 2003). Gratitude is defined as thankful and appreciative emotions that result from positive events or the benevolence of others (Froh, Sefick, & Emmons, 2008; McCullough, Emmons, & Tsang, 2002). Gratitude has also been positively associated with good mental health (e.g., life satisfaction, positive affect, and optimism) (Froh, Yurkewicz, & Kashdan, 2009).

Sheldon and Lyubomirsky (2006) conducted a study ($N = 67$) where a sample of US undergraduate students were allocated to a gratitude condition (i.e., three blessings

exercise); a hope condition (i.e., best possible self exercise); and a comparison control condition (i.e., recalling daily events). Results indicated that all participants experienced reduced negative affect post-intervention. In addition, participants allocated to the best possible self exercise reported significantly higher positive affect post-intervention compared with the control condition. Froh et al., (2008) found that adolescents (N = 221) assigned to a gratitude condition reported higher satisfaction with life, gratitude, satisfaction with school, and optimism than adolescents assigned to a daily hassles condition that induced negative affect. Hence, there is emerging evidence that nurturing hope and gratitude has benefits for mental health.

There is also growing evidence that using strengths enhances well-being (Steen, Kachorek, & Peterson, 2003). In a sample of 214 undergraduate students, Govindji and Linley (2007) found that strengths knowledge and use were significantly associated with subjective and psychological well-being. Seligman, Steen, Park, and Peterson (2005) conducted a study where 577 adult participants were randomly allocated to one of six conditions: (a) a gratitude visit; (b) identifying three good things about life each day; (c) identifying strengths; (d) using strengths in a new way; (e) identifying times when they are at their best; or (f) a placebo control condition. Participants allocated to the strengths use and three good things conditions reported higher happiness and lower depression up to six months post-intervention compared with participants allocated to the control condition. The gratitude visit led to higher happiness and lower depression for one month after the intervention relative to the control condition.

Seligman (2002) proposed that happiness can be pursued via three orientations: pleasure, engagement, and meaning. In US and Australian adult samples, participants'

pleasure, engagement, and meaning have been found to predict subjective well-being (with engagement and meaning being the strongest predictors) (Peterson, Park, & Seligman, 2005; Vella-Brodrick, Park, & Peterson, 2009). However, pleasure, engagement, and meaning orientations to happiness have not yet been explored in adolescent populations.

Although there is some support relating hope, gratitude, strengths use, and orientations to happiness with good mental health some limitations are noteworthy. First, there has been limited research exploring these concepts (in particular, strengths use and orientations to happiness) in adolescent samples. Second, there has been little research examining multiple positive psychology constructs simultaneously thereby rendering comparisons of their relative contributions to mental health unknown. To address these shortcomings, the aims of the current study were to: (a) explore whether hope, gratitude, strengths use, pleasure, engagement, and meaning (i.e., positive psychology variables) predicted variance in adolescent mental health (i.e., life satisfaction, positive affect, negative affect, depression, and anxiety); and (b) to compare the relative contributions of each of these positive psychology variables.

Method

Participants

Study participants were 114 Australian adolescents (female = 91). Ages ranged from 14 to 17 years with a mean age of 15.97 ($SD = 1.02$). The majority (95.6%) of participants were at secondary school. Participants reported being from the following cultural backgrounds: Australian – non Indigenous (61.4%), English/European (21.1%), Aboriginal or Torres Strait Islander (7.0%), Asian (4.4%), and other (6.1%).

Measures

A *demographic questionnaire* asked about participants' gender, age, year level at school (or main activity if not at school), and cultural background.

The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) is a five-item measure of life satisfaction. Participants rate aspects of their lives (e.g., 'I am satisfied with my life') on a seven-point scale ranging from *strongly disagree* to *strongly agree*. Higher scores indicate higher life satisfaction. The SWLS has been found to have good internal consistency ($\alpha = .87$), and to correlate predictably with other measures of well-being in adult and adolescent samples (Diener et al., 1985; Neto, 1993).

The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) measures positive and negative affect. It consists of a 20-item word list; 10 items assessing positive affect (e.g., 'enthusiastic') and 10 items measuring negative affect (e.g., 'afraid'). Participants indicate the extent to which they *generally feel this way* on a five-point scale ranging from *very slightly or not at all* to *very much*. Separate scores for positive affect and negative affect are calculated with higher scores indicating more frequent experience of the relevant emotion. The PANAS has been found to have good internal consistency (positive affect $\alpha = .85$; negative affect $\alpha = .84$) and to have good convergent validity with measures of adolescents' self esteem and locus of control (Huebner & Dew, 1995).

The State – Trait Anxiety Inventory – Trait (STAI-T; Spielberger, Gorsuch, & Lushene, 1970) is a 20-item measure of individuals' predisposition to experience anxiety. The STAI-T consists of 11 anxiety-present statements (e.g., 'I feel frightened') and nine anxiety-absent items (e.g., 'I feel secure'). Participants indicate how they generally feel on a four-point scale ranging from *almost never* to *almost always*. Positively worded items are

reverse scored, and items are summed to create an overall trait anxiety score (higher scores indicate higher anxiety). The STAI-T has been reported to be reliable ($\alpha = .86$ to $.92$) and valid in several samples including adolescents (Hishinuma et al., 2000; Spielberger et al., 1970).

The Children's Depression Inventory (CDI; Kovacs, 1982) is a 27-item measure of depression suitable for youth aged seven to 17. For each item, participants choose between three options (e.g., 'I have trouble sleeping all the time', 'I have trouble sleeping many nights', or 'I sleep pretty well'). Higher scores indicate more symptoms of depression. The CDI has been found to have good internal consistency ($\alpha = .94$) and can distinguish emotionally distressed from non-emotionally distressed youth (Saylor, Finch, Spirito, & Bennett, 1984). In the current study, the item related to suicidal ideation (Item 9) was excluded due to concerns about providing adequate duty of care to participants.

The Strengths Use Scale (SUS; Govindji & Linley, 2007) is a 14-item measure of individuals' strengths use. Participants respond to items (e.g., 'I always play to my strengths') on a seven-point scale ranging from *strongly disagree* to *strongly agree* (higher scores indicate more frequent use of strengths). The SUS has been found to have high internal consistency ($\alpha = .95$) in an adult sample and to have a strong positive correlation ($r = .85$) with strengths knowledge (Govindji & Linley, 2007).

The Children's Hope Scale (CHS; Snyder et al., 1997) is a six-item measure of hope (i.e., agency thinking and pathway thinking). Participants respond to each item (e.g., 'I think I am doing pretty well') on a seven-point scale ranging from *none of the time* to *all of the time* (higher scores indicate more hopeful thinking). The CHS has been found to have

satisfactory internal consistency ($\alpha = .72$ to $.86$) and to correlate predictably with other measures of hope (including observers' ratings) (Snyder et al., 1997).

The Gratitude Questionnaire – 6 (GQ-6; McCullough et al., 2002) is a six-item measure of an individual's tendency to experience gratitude. Participants respond to items (e.g., 'I am grateful to a wide variety of people') on a seven-point scale ranging from *strongly disagree* to *strongly agree* (higher scores indicate more gratitude). The GQ-6 has been found to have high internal consistency ($\alpha = .82$) and to correlate predictably with other measures of gratitude and measures of pro-social constructs (McCullough et al., 2002).

The Orientations to Happiness Scale (OTHS; Peterson et al., 2005) is designed to measure the extent to which respondents pursue happiness through pleasure, engagement, and meaning. The scale consists of 18 items; six each for pleasure (e.g., 'I love to do things that excite my senses'); engagement (e.g., 'I am always absorbed in what I do'); and meaning (e.g., 'my life serves a higher purpose'). Participants respond to each item on a five-point scale ranging from *not at all like me* to *very much like me* (higher scores indicate higher pleasure, engagement, and meaning). The subscales have been found to have satisfactory internal consistency (pleasure $\alpha = .82$; engagement, $\alpha = .72$; and meaning $\alpha = .82$) and the three factor structure has been empirically supported by principal components analysis (Peterson et al., 2005).

Procedure

Ethics approval was granted by the Monash University Human Research Ethics Committee. A recruitment email was distributed via youth networks and online communities. Furthermore, recruitment posters were put up in a diverse range of youth

organisations (e.g., sporting clubs, multicultural clubs, and community centres) and advertisements were included in youth magazines. A draw with 10 double passes to the movies was used as an incentive for participation. Participants who self selected into the study completed the battery of questionnaires online via SurveyMethods.

Results

Preliminary Analyses

The data were entered in SPSS V17 statistical package. Missing data constituted less than 5% of the sample and were replaced using expectation maximisation via SPSS. The sample size of 114 was greater than the minimum ($104 + 6$) recommended by Tabachnick and Fidell (2007) for standard multiple regression analysis. Several univariate outliers were truncated. Variables were normally distributed and the data did not violate any of the assumptions of multivariate analysis.

Independent samples t-tests were used to compare mean differences between male and female participants. Females were found to report higher meaning ($M = 19.98$, $SD = 4.85$) than males ($M = 17.65$, $SD = 4.71$; $t(110) = -2.00$, $p < .05$). However, no other significant differences were found between males and females ($p > .05$, two-tailed). Means, standard deviations, alpha coefficients, scale ranges, and correlations with mental health variables are presented in Table 1.

Insert Table 1 about here

Regression Analyses

Separate multiple regressions were conducted for the criterion variables of life satisfaction, positive affect, negative affect, depression, and anxiety. Hope, gratitude, strengths use, pleasure, engagement, and meaning, were entered as the positive psychology

predictors. These positive psychology variables significantly predicted life satisfaction $F(6, 107) = 22.82, p < .001$ accounting for 56.1% (adjusted $R^2 = .54$) of the variance. Hope and gratitude were significant predictors of life satisfaction (see Table 2).

Insert Table 2 about here

Positive psychology variables significantly predicted positive affect $F(6, 107) = 31.17, p < .001$ accounting for 63.6% (adjusted $R^2 = .62$) of the variance. Regression coefficients are displayed in Table 2. Hope, strengths use, and engagement were significant predictors of positive affect.

Positive psychology variables significantly predicted negative affect $F(6, 107) = 4.48, p < .001$ accounting for 20.1% (adjusted $R^2 = .17$) of the variance. As can be seen from Table 2, gratitude and strengths use were significant predictors of negative affect.

Positive psychology variables significantly predicted depression $F(6, 107) = 16.98, p < .001$ accounting for 48.8% (adjusted $R^2 = .46$) of the variance. Similarly, positive psychology variables significantly predicted anxiety $F(6, 107) = 14.51, p < .001$ accounting for 44.9% (adjusted $R^2 = .42$) of the variance. Regression coefficients are displayed in Table 2. Gratitude and strengths use were significant predictors of depression and anxiety.

Discussion

The purpose of this study was to explore hope, gratitude, strengths use, pleasure, engagement, and meaning as predictors of adolescent mental health. Positive psychology variables explained significant variance in all indicators of mental health (i.e., life satisfaction, positive affect, negative affect, depression, and anxiety). This is a promising finding that supports the exploration of positive psychology as an avenue for enhancing youth mental health.

Hope and gratitude were significant predictors of life satisfaction, whereas hope, strengths use, and engagement predicted positive affect. Gratitude and strengths use were consistent predictors of negative indicators of mental health, each explaining unique variance in negative affect, depression, and anxiety. These findings are consistent with research that has found the components of subjective well-being to be independent constructs with different predictors (Diener & Emmons, 1985; Gallagher & Vella-Brodrick, 2008). Furthermore, the discrepancies between the predictors of positive and negative indicators of mental health emphasises that an understanding of mental illness does not constitute an understanding of positive mental health (Norrish & Vella-Brodrick, 2008) and underscores the importance of a holistic approach where efforts to promote good mental health and flourishing are used in conjunction with efforts to prevent and treat mental health problems (Keyes, 2005).

Positive psychology variables predicted the least amount of variance in negative affect (i.e., 20.1%; compared with values ranging from 44.6% for anxiety to 63.6% for positive affect). It is important to note that negative emotions (as long as they are not severe or chronic) serve important functions (Forgas, Laham, & Vargas, 2005) and are necessary for growth (Linley & Joseph, 2004). Therefore, it is plausible that the relationship between positive psychology variables and negative affect is complex and more work is needed to understand the underlying mechanisms.

The finding that gratitude was a predictor of life satisfaction and negative mental health indicators is consistent with previous research that has found gratitude to be important for mental health (Froh et al., 2008; Froh et al., 2009). Gratitude is believed to facilitate relationship formation and maintenance (Algoe, Haidt, & Gable, 2008) which is

protective against the development of mental health problems. Similarly, based on the broaden-and-build theory (Fredrickson, 2001), Froh et al. (2009) propose that gratitude evokes *approach* behaviours, such as exploring the environment which lead to increased *thought-action repertoires*, or social and psychological resources that an individual has at their disposal at times of adversity. In addition, gratitude is believed to encourage appreciation and savouring of positive events thereby maximising the satisfaction that is derived from them (Sheldon & Lyubomirsky, 2006). Therefore, the findings of this research support emerging evidence that gratitude may be protective against the development of adolescent mental health problems.

Strengths use was a significant predictor of positive affect, negative affect, depression, and anxiety suggesting that strengths use may also have a protective role in adolescent mental health. While research in adult populations has found using strengths in original ways leads to enhanced well-being (Seligman et al., 2005), experimental research on strengths use in adolescent populations is limited. Therefore, the finding that youth who reported frequent strengths use were less likely to report mental pathology is a promising one that supports further exploration of the role of strengths as protective mechanisms in adolescent mental health. Future research could examine adolescents' strengths knowledge (Govindji & Linley, 2007) or the benefits of certain strengths such as those included in the Values in Action (VIA) framework (e.g., love of learning, leadership, humour) (Park & Peterson, 2006; Peterson & Seligman, 2004).

The finding that hope was a unique predictor of life satisfaction and positive affect is consistent with previous research findings that young people who are hopeful about the future report high well-being (Snyder, 2002; Snyder et al., 2003). According to Snyder,

Rand, and Sigmon (2005) the successful pursuit of goals and overcoming challenges (which are related to the pathways and agency aspects of hope) lead to positive emotions and the sense that life is worthwhile and meaningful. Engagement was a significant predictor of positive affect. Engagement is based on Csikszentmihalyi's (1990) concept of flow which is described as feelings of *optimal happiness* that occur when individuals take part in intrinsically motivating tasks. Furthermore, engagement is associated with high absorption in valued and enjoyable activities (Froh et al., 2010). Hence it is not surprising that engagement is related to the experience of positive emotions.

Pleasure did not emerge as a unique predictor of adolescent mental health. This finding is consistent with research with adult samples that has found pleasure to have smaller associations with subjective well-being than engagement or meaning (although it is noteworthy that meaning has been found to have a negative beta-weight in regression analyses) (Vella-Brodrick et al., 2009). These are important findings as they contradict messages portrayed in the media that happiness can be found through hedonistic and materialistic pursuits (Chaplin, 2009). According to affective forecasting theory, individuals do not accurately predict the amount of happiness future events will bring and therefore are motivated by goals that do not result in maximum happiness (Wilson & Gilbert, 2003). Guiding young people to critically evaluate the role of pleasure in happiness may help them to make more accurate affective forecasts and pursue more intrinsically motivated goals leading to enhanced well-being.

In the current study, meaning did not emerge as a unique predictor of mental health. In a study of 8,756 adult participants Steger, Oishi, and Kashdan (2009) found meaning to increase with age, and search for meaning to decrease with age. Whether the search for

meaning has an impact on adolescent mental health was not explored in this study and warrants further investigation. Overall, it is recommended that the relationships between pleasure, engagement, and meaning and mental health are explored via longitudinal research as different orientations to happiness may be helpful at various life stages for successful development.

The primary limitation of this study was that it was a correlational design, and therefore, causal direction can not be established. Further research using experimental methods would yield more clear insight into how positive psychology variables influence adolescent mental health. Furthermore, longitudinal research (with a focus on changes that occur as adolescents go through the transition to early adulthood) is important (Norrish & Vella-Brodrick, 2009). Another limitation was that participants self selected into the study and therefore the results may be biased towards certain subgroups of the population. In particular, one limitation was the disproportionate ratio of young women to men. Low male participation rates are often found in research studies (and may reflect more general low rates of male help seeking) (Cohen, Medlow, Kelk, & Hickie, 2009). Further understanding of how to engage young men in research studies is imperative. A third limitation was that some measures used in this study (e.g., the SUS and the OTHS) (Govindji & Linley, 2007; Peterson et al., 2005) are relatively new and have not been validated in adolescent samples. In order to progress the field of positive psychology the development and refinement of measures relevant to specific subgroups of the population, and more specifically to adolescents, must continue.

Further research could control for well-established predictors of well-being such as personality (DeNeve & Cooper, 1998) in order to ascertain whether positive psychology

variables predict mental health beyond the variance explained by individual difference factors. Similarly, this research focused on subjective well-being as an indicator of positive mental health. It is also important to explore the predictors of eudaimonic conceptualisations of mental health such as Ryff's (1989) six dimension model of psychological well-being (i.e., autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self acceptance).

There is promising evidence that hope, gratitude, strengths use, and engagement can be developed through quite simple and cost effective strategies (Schueller, 2010). For example, a young person may develop hope through using stretch goals (i.e., goals that are progressively more challenging) (Lopez et al., 2004) or cultivate gratitude by paying specific attention to good things that happen (Froh et al., 2008). Strengths can be explored via formal methods (e.g., completing the VIA Inventory of Strengths) (Seligman et al., 2005) or informal methods (such as reflecting on best possible selves) (Sheldon & Lyubomirsky, 2006). Finally, engagement can be fostered by taking part in activities that offer a match between task challenge and skill level (Shernoff, Csikszentmihalyi, Schneider, & Shernoff, 2003) or activities that use signature strengths (Seligman et al., 2005).

Applying positive psychology with young people has significant potential (Chafouleas & Bray, 2004; Gilman et al., 2009). The finding of the current study that key positive psychology variables predicted variance in positive and negative indicators of mental health is promising and supports efforts to implement positive psychology programs in schools and youth organisations. Positive psychology approaches that focus on enhancing strengths and cultivating well-being may be less confronting to young people

than efforts to fix problems (such as mental dysfunction or problematic behaviour). This may lead to increased program recruitment, adherence, and retention. Importantly, in order to facilitate a holistic approach, positive psychology strategies should be used in conjunction with efforts to prevent and alleviate mental ill health.

In conclusion, the current research suggests that being engaged in the present and hopeful about the future is important for subjective well-being. In contrast, expressing gratitude and using strengths is important for ameliorating mental illness. Therefore, in order to enhance holistic mental health, PPIs for adolescents should integrate elements that focus on the past (gratitude); present (engagement and strengths use); and future (hope). Future research will need to determine if existing interventions around increasing hope, engagement, strengths use, and gratitude will be as effective with adolescents as they are with adult samples. If positive psychology interventions are to make a significant and permeating impact on adolescent mental health, it may be necessary to develop interventions that are suited to adolescents in terms of their interests, resources, and constraints.

Table 1

Means, Standard Deviations, and Alpha Coefficients of Study Variables and Correlations with Outcome Variables (N = 114)

	Mean (SD)	α	Scale range	r with life satisfaction	r with positive affect	r with negative affect	r with depression	r with anxiety
Hope	25.27 (5.69)	.86	6-36	.68***	.70***	-.32**	-.60***	-.59***
Gratitude	34.58 (6.51)	.88	7-42	.67***	.46***	-.32**	-.63***	-.53***
Strengths	71.11 (15.93)	.95	14-98	.56***	.71***	-.33***	-.57**	-.59***
Pleasure	21.40 (4.81)	.81	6-30	.38***	.54***	-.07	-.38***	-.36***
Engagement	17.62 (4.34)	.69	6-30	.20*	.55***	-.04	-.26**	-.32**
Meaning	19.43 (4.93)	.78	6-30	.35***	.48***	-.05	-.34**	-.28**
Life satisfaction	24.26 (7.10)	.79	7-35	1	.44***	-.34***	-.67***	-.59***
Positive affect	34.30 (7.32)	.77	10-50	-	1	-.23*	-.54***	-.63***
Negative affect	23.50 (7.73)	.86	10-50	-	-	1	.73***	.71***
Depression	11.19 (8.41)	.87	0-52	-	-	-	1	.90***
Anxiety	43.11 (12.47)	.87	20-80	-	-	-	-	1

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 2

Standard Multiple Regression Summary for the Prediction of Life Satisfaction, Positive Affect, Negative Affect, Depression, and Anxiety (N = 114)

		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
LS	Hope	.49	.14	.40	3.51	.00**
	Gratitude	.46	.10	.42	4.55	.00***
	Strengths	.05	.05	.11	1.09	.28
	Pleasure	-.09	.13	-.06	-.68	.50
	Engagement	-.83	.13	-.05	-.63	.53
	Meaning	-.08	.12	-.06	-.67	.51
PA	Hope	.47	.13	.36	3.55	.00**
	Gratitude	-.09	.10	-.08	-.90	.37
	Strengths	.15	.04	.32	3.39	.00**
	Pleasure	.07	.12	.05	.56	.58
	Engagement	.44	.12	.26	3.56	.00**
	Meaning	.07	.11	.05	.59	.56
NA	Hope	-.14	.21	-.10	-.68	.50
	Gratitude	-.36	.15	-.30	-2.43	.02*
	Strengths	-.14	.07	-.30	-2.11	.04*
	Pleasure	.36	.19	.23	1.9	.06
	Engagement	-.02	.19	-.01	-.09	.93
	Meaning	.30	.18	.19	1.66	.10
DEP	Hope	-.24	.18	-.16	-1.32	.19
	Gratitude	-.59	.13	-.45	-4.52	.00***
	Strengths	-.14	.06	-.27	-2.39	.02*
	Pleasure	.13	.17	.08	.79	.43
	Engagement	-.08	.17	-.04	-.44	.66
	Meaning	.14	.16	.08	.91	.37
ANX	Hope	-.24	.18	-.16	-1.32	.19
	Gratitude	-.58	.13	-.45	-4.52	.00***
	Strengths	-.14	.06	-.27	-2.39	.02*
	Pleasure	.13	.17	.07	.79	.43
	Engagement	-.07	.17	-.04	-.44	.66
	Meaning	.14	.16	.08	.91	.37

Note. LS = life satisfaction, PA = positive affect, NA = negative affect, DEP = depression, ANX = anxiety. * $p < .05$, ** $p < .01$, *** $p < .001$.

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Chapter 5: Introduction to the Youth Consultation Study

This thesis combined research in positive psychology with youth consultation methods to create engaging and appealing PPIs for adolescents. Youth consultation involves providing opportunities for young people to have input into mental health program development with the aim of creating more tailored, engaging, and successful approaches (AICAFMHA; 2008; Powers & Tiffany, 2006). The aim of the current study was to obtain adolescents' ideas and input into the PPIs. More specifically, 28 Australian adolescents completed a phone interview that explored their ideas about mental health programs and services. Phone interviews, as opposed to focus groups, were conducted in order to facilitate the participation of young people from all states and territories of Australia.

The first section of the phone interview focused on young people's recommendations for mental health program (a copy of the phone interview questions is provided in Appendix E). Two researchers analysed participants' responses using NVivo software and a thematic analysis framework (Braun & Clarke, 2006). Results and implications are critically discussed in Publication 3, *Collaborating with Adolescents to Develop Innovative and Relevant Approaches to Youth Mental Health*. The remaining questions in the interview explored adolescents' specific recommendations for the PPIs (e.g., whether they recommended school or community based delivery). This information was informally analysed and used during the development of the PPIs. More information on this process is provided in the chapter titled *Intervention Development*.

This study provided important theoretical and practical information. In terms of the current research, adolescents' ideas were used to create engaging and youth appropriate PPIs. From a wider perspective, taking part in the phone interviews gave young people the

opportunity to voice their ideas on issues that are important to them. Moreover, this research draws attention to consultation and participation methods and the valuable role they play in developing interventions and programs specifically aimed at adolescents or other sub-groups of the population. Furthermore, the following publication facilitates the dissemination of factors adolescents deem to be important in the development and delivery of mental health programs to professionals who work with young people.

PLEASE REPLACE THIS PAGE WITH THE SIGNED DECLARATION 6.

Collaborating with Adolescents to Develop Innovative and Relevant Approaches to Youth Mental Health

Declaration by candidate: In the case of Chapter 6, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Collaborated on the development of the study design and the phone interview transcript. Piloted the phone interview. Recruited participants. Conducted phone interviews. Conducted thematic analysis in partnership with a second independent researcher. Wrote initial and subsequent drafts of the publication.	80%

The following co-authors contributed to the work.

Name	Nature of contribution
Dianne Vella-Brodrick	Collaborated on the development of the study design. Contributed to the selection of measures and data analytic techniques. Provided ongoing guidance and feedback throughout all stages of writing and editing.

Candidate's Signature

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Declaration by co-author:

The undersigned hereby certify that:

- (7) the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.
- (8) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;
- (9) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;
- (10) there are no other authors of the publication according to these criteria;
- (11) potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and
- (12) the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

Location

School of Psychology and Psychiatry, Monash University.

Signature

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Chapter 6: Collaborating with Adolescents to Develop Innovative and Relevant Approaches
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Abstract

Increasingly professionals are collaborating with young people via consultation and participation methods to create youth mental health programs that are attractive, engaging, and effective. The current study forms part of a larger research agenda that aimed to create two positive psychology interventions for adolescents. As part of the intervention development process, 28 adolescents (aged 14 to 17) were consulted by phone about their recommendations on how to make mental health programs appealing and engaging. Thematic analysis using NVivo was used to identify common patterns in participants' responses. Seven key themes were identified: (a) ensure young people have access to mental health services (from a young age); (b) make programs fun, experiential, and interactive; (c) make programs age appropriate, realistic, and relevant; (d) take young people seriously; (e) respect individual differences; (f) respect autonomy and individual boundaries; and (g) engage a facilitator who listens. It is proposed that giving young people a key role in mental health program development and delivery can lead to resources that are youth appropriate and effective. To illustrate this point, discussion will focus on how two organisations (i.e., Reach Out and the Reach Foundation) are successfully engaging young people in the provision of mental health services.

Keywords: youth consultation; adolescence; mental health; promotion; prevention.

Adolescence, defined as the period of life between 12 and 17 years, is often identified as a life-stage with high risk of mental health problems (Ford, Goodman, & Meltzer, 2003; Sawyer et al., 2000). For example, in a study of 22,000 children and adolescents in 13 European countries, 15.1% of respondents were characterised as borderline or abnormal on measures of mental distress. Adolescents with mental health problems have been found to report lower quality of life and self esteem, and greater difficulties in school than adolescents without mental health problems (Sawyer et al., 2000). Furthermore, evidence suggests that many adolescents without diagnosable mental health conditions do not report high well-being (Mission Australia, 2010). For example, in a study of adolescent emotional, psychology, and social well-being (N = 1,234), participants were more likely to be characterised as moderately mentally healthy than flourishing (Keyes, 2006).

Despite high rates of adolescent mental health problems and low rates of flourishing, methods of engaging youth in mental health services are not yet well understood. A review by Rickwood, Deane, Wilson, and Ciarrochi (2005) involving 2,721 adolescents (aged 14 to 24 years) found that a very small percentage of youth (i.e., less than 10.0%) seek help from formal sources such as health or educational professionals. Furthermore, youth characterised as at-risk were the least likely to seek help. High rates of mental health problems and low rates of flourishing have seen a move towards universal programs aimed at teaching all young people mental health promotion and prevention skills and strategies (Spence & Shortt, 2007). This approach acknowledges that helping all adolescents to develop skills that promote well-being and nurture mental health are worthy goals (Keyes, 2006).

Youth Participation and Consultation

Traditionally adolescents have been passive receivers of mental health programs developed and facilitated by adult experts (Oliver, Collin, Burns, & Nicholas, 2006). However, increasingly, mental health professionals are engaging young people as partners in program development, delivery, and evaluation. Youth participation and consultation are overarching terms for activities that involve young people in decisions that affect them (AICAFMHA; 2008). While there is considerable overlap between the two terms, youth participation generally involves young people as partners at all stages of the research process (Powers & Tiffany, 2006); whereas youth consultation is biased to the researchers' predetermined agenda (National Children's Advisory Council, 2009).

There are several benefits to youth participation and consultation. First, involving young people in the research process generates information that can be used to improve the quality and effectiveness of programs and services (Powers & Tiffany, 2006). Second, youth consultation empowers young people by involving them in decision making (Oliver et al., 2006). Third, participation and consultation methods increase the credibility of mental health initiatives as young people feel their point of view is valued and respected. Fourth, the consultation process educates health professionals and enhances their understanding of the target group (Cohen, Medlow, Kelk, & Hickie, 2009). As consultation methods increase in popularity, a priority is the dissemination of outcomes in order to maximise the impact of young people's ideas and ensure that work is not replicated unnecessarily.

The Current Study

The current study formed part of a larger project that combined research in positive psychology (i.e., the scientific study of positive emotions, well-being, and human strengths and flourishing (Gable & Haidt, 2005)) with youth consultation methods to create adolescent focused positive psychology interventions (PPIs). PPIs aim to promote mental health and alleviate mental pathology and focus on teaching individuals strategies and behaviours that promote well-being such as identifying and applying strengths (Seligman, Steen, Park, & Peterson, 2005) and cultivating gratitude (Froh, Sefick, & Emmons, 2008). While PPIs have been found to have utility in enhancing well-being and decreasing depression (Seligman et al., 2005) effect sizes are generally smaller in adolescent compared with adult samples (i.e., in a meta-analysis of 51 PPI studies mean effect sizes were found to be .14 for younger samples compared with .23 to .50 for older age groups) (Sin & Lyubomirsky, 2009). Therefore, increased understanding of how to engage adolescents in PPIs is important.

The current study was based on the premise that youth consultation may be an effective way of enhancing the youth-friendliness of PPIs thereby maximising the potential that adolescents will derive benefits from the positive psychology concepts and strategies. As part of program development, 28 adolescents provided suggestions and recommendations (via phone interviews) on how to make mental health programs attractive and engaging. As the researchers had a predetermined agenda (i.e., of creating PPIs) this research is more aligned with youth consultation than participation. In sum, the current paper discusses adolescents' ideas with the aim of elucidating factors of importance and interest to young people so that future mental health programs can be more relevant and

effective for this population. In addition, discussion will focus on how two organisations (i.e., Reach Out and the Reach Foundation) are overcoming some of the challenges inherent in engaging young people in mental health services by collaborating with young people in program development and delivery.

Method

Participants

Participants in this study took part in a larger mixed-methods study on positive psychology and adolescent mental health. Participants were recruited to the overall study via advertisements in Australian listserves, newsletters, and youth organisations (e.g., sports clubs, youth clubs, cross cultural organisations). For the initial stage of the study, participants completed an online battery of questionnaires. Participants were asked to indicate whether they would like to take part in a follow-up phone interview. Of the 114 participants who took part in the overall study, 38 participants consented to taking part in a phone interview. Of these, 28 adolescents (22 female) could be contacted.

Ages ranged from 14 to 17 ($M = 15.77$, $SD = 1.09$). Participants came from all states and territories of Australia. The majority of participants (i.e., 78.5%) reported being from an Australian – non indigenous background with the remainder of participants reporting their cultural backgrounds as: English/other European (14.3%); Aboriginal or Torres Strait Islander (3.6%); and Asian (3.6%).

Procedure and Materials

The phone interview was piloted on two adolescents (aged 14 and 16). The pilot participants demonstrated a good understanding of the questions and therefore the language and structure of the interview was deemed to be appropriate.

Once initial contact was made (and informed consent verified) participants were introduced to the aims of the study as follows:

We are designing a program that aims to help young people improve their mental health and well-being. Examples of activities that may be included are exploring and developing strengths and helping young people to develop skills in setting and achieving goals. The next few questions are aimed at gaining your advice and input into the format and design of this program.

Following the general introduction, the interview was structured around three questions:

- (a) Can you suggest any ways to make the mental health program engaging and appealing for young people?
- (b) Do you have any advice on what to avoid or what not to do?
- (c) Is there anything else important for us to consider, in your opinion?

As the aim was to obtain adolescents' general thoughts and ideas, participants were not exposed to draft program materials as it was deemed such information may be leading. Paraphrasing participants' responses and unscripted questions were used to encourage young people to elaborate on their answers.

Data Collation and Analysis

The phone interviews were audio recorded and transcribed verbatim. Thematic analysis was used to explore common patterns in participants' responses. While some flexibility was maintained, prior to analysis a theme was defined as an idea or suggestion that occurred in at least two participants' responses or a concept to which one participant gave considerable attention. NVivo software was used to analyse the data according to the six step thematic analysis procedure recommended by Braun and Clarke (2006): (1) gaining

familiarity with the data; (2) generating initial codes; (3) exploring potential themes; (4) reviewing and refining themes; (5) defining and naming themes; and (6) producing the final report. Two researchers (i.e., the first author and a researcher with a Masters Degree in Clinical Psychology) independently analysed the data and compared and contrasted themes. The two researchers had 100% agreement on the seven core themes (with some slight variations in language) and 88% agreement on the coding of individual responses. Subsequently, the two researchers discussed inconsistencies until mutual consensus was obtained.

Results

The seven key themes identified were: (a) ensure young people have access to mental health programs and services (from a young age); (b) make programs fun, experiential, and interactive; (c) ensure programs are age appropriate and realistic; (d) take young people seriously (and don't be patronising); (e) respect individual differences; (f) respect autonomy and individual boundaries; and (g) engage a facilitator who listens. Key recommendations for professionals working with young people are summarised in Table 1.

Insert Table 1 about here

Accessibility and Awareness

Four participants discussed the importance of ensuring young people have access to mental health programs and services. For example, one participant described the importance of skills and strategies that nurture mental health as follows: "it is like learning to write, it is something that you need for your whole life, like you could live without it, but it would make life difficult". Another participant expressed the importance of teaching young people mental health skills from a young age:

If you start in year seven, and start building up good mental health and a way to deal with things, then by the time you get to year ten and exams, when life starts getting a little more difficult, you can cope better because you actually understand what is going on around you and you have some way of dealing with it.

Participants also stressed the importance of advertising and creating awareness about mental health programs (e.g., “if it is not accessible, if people don’t know about it, then there is no point”). One participant advocated for the needs of sub-groups of the population who may slip through the gaps of traditional approaches such as adolescents who have left school.

Create Fun, Experiential, and Interactive Programs

Eleven participants discussed the importance of making programs fun and interactive. More specifically, participants suggested that games, music, illustrations, and videos can help to make mental health programs appealing and engaging. In addition, participants recommended high levels of discussion and free food. Participants also recommended ensuring mental health programs are not too much like school. For example, participants advised against making young people sit down for long periods of time or write extensive amounts of information.

Ensure Programs are Age Appropriate, Realistic, and Relevant

Nine participants identified that it was important that programs were age appropriate, realistic, and relevant. For example, one young person proposed that: “if it is more real to people then it is more interesting... if it is like this idealistic thing that is not real to people, it doesn’t really work”. It was recommended that examples, activities, and case studies were based on the experiences of people of a similar age (e.g., “I am always

more interested when I am reading from some one my age's point of view"). Similarly, a common idea was the value of stories and learning from the experiences of others. One suggestion was to get program participants to create their own examples and/or share personal stories and use these as a basis for discussion and activities.

Take Young People Seriously (and Don't be Patronising)

Seven participants discussed the importance of taking adolescents seriously. For example: "don't think teenagers are idiots... it is not true. Adults like to treat teenagers like they are young and stupid". The phrase "don't treat us like kids" was mentioned several times. A sub-theme identified was that adolescents can often feel patronised by adults. For example: "don't be patronising. That it the main thing, young people really don't want to be patronised". Participants believed that efforts to fit in with youth culture also ran the risk of feeling artificial or condescending. For example, one participant advised: "you know how programs try to spruce things up by having fun little cartoons... people tend to not like that kind of thing". Similarly, another young person stated: "try not to go all out with fitting it into teen culture, like, using lots of slang, trying to sound rad and cool".

Respect Individual Differences

Five participants discussed the importance of catering for individual differences (e.g., "it is important to remember everyone is different and has different opinions"). Sub themes identified by participants as important individual difference factors were: age, maturity, gender, sexuality, cultural background, history of mental illness, and personality (e.g., introversion and extraversion). Similarly, participants identified that formats or approaches may work differently for different people. For example: "having different

mediums is important, like some people like email, some like face-to-face, some like one-on-one, and some like over the phone”.

Respecting Autonomy and Individual Boundaries

Five participants stressed the importance of allowing adolescents to have autonomy and freedom of choice about their engagement with programs. More specifically, young people believed it should not be compulsory to attend mental health programs or take part in activities they do not feel comfortable with (e.g., “don’t force people into things they might not want to do, be more laid back”). Similarly, several participants discussed previous past experiences of having to share information or speak in front of others when they were not comfortable doing so.

Listen to Young People

Three participants proposed that the qualities of the professionals running the mental health programs were integral to the program’s success and effectiveness. In particular, good listening skills were identified as a priority. For example, one young person recommended facilitators who will “sit down and actually listen, not tell us what to do, just listen”. Participants believed it is important that professionals running mental health programs are passionate about their jobs and warned that it is easy for young people to tell when an individual is disengaged or unmotivated.

Discussion

High rates of youth mental health problems combined with low rates of flourishing has seen increased focus on innovative approaches to youth mental health. While adolescents have traditionally been passive participants in mental health programs developed by adults, youth consultation and participation are increasingly being used in

order to create effective and appealing mental health initiatives (Oliver et al., 2006).

Participants in the current study valued the opportunity to express their ideas. For example, one participant stated: “I think it is wonderful that you are finally asking teens what they think about issues that affect them”. This emphasises the significance of consultation and participation methods in addressing the mental health needs of adolescents and reinforces that young people desire to be consulted on issues that impact them (Stafford, Laybourn, Hill, & Walker, 2003).

While adolescents saw value in mental health initiatives they also advocated for autonomy and freedom of choice in terms of their engagement with programs. Respecting individual boundaries was identified as a priority and coercing adolescents to participate in activities they are uncomfortable with (e.g., speaking in front of others) was believed to be particularly problematic. Research suggests that mental health programs are more effective if individuals are *intrinsically motivated* to be there (i.e., as opposed to being motivated by external demands or pressures) (Sheldon & Lyubomirsky, 2006). Therefore, if adolescents’ needs of autonomy and independence are supported, they may engage with mental health programs by their own volition.

Valuing Young People

Participants in the current study expressed a desire to be listened to and valued. This notion is similar to results of a qualitative study of 200 Scottish children and adolescents (aged 3 to 18) who expressed a strong desire to be treated with genuine positive regard and respect (Stafford et al., 2003). Similarly, the importance of mental health professionals who are empathetic and willing to listen is consistent with in-depth interviews with 15 Australian adolescents by Cohen et al. (2009) who found the relationships between young

people and health care professionals to be essential to the quality of young people's experience. Moreover, past negative experience with mental health professionals (in particular when young people felt they were not taken seriously) has been found to decrease the probability of future help seeking and engagement with mental health services (Rickwood et al., 2005). These findings reinforce the importance of creating non-judgemental, open, and respectful relationships with adolescents (Cohen et al., 2009).

Participants in the current study warned that efforts to present information in 'cool or trendy' ways may be perceived by adolescents as condescending and patronising. Similarly, Cohen et al. (2009) found that young people often feel that they are not treated seriously because of their age. Designing programs that are fun and youth appropriate while ensuring young people feel respected is a significant challenge as young people may feel patronised by activities designed to engage them. Evidence of this tension is provided by conflicting perspectives of participants' in the current study. For example, one participant recommended using trust exercises as an interactive way of engaging participants whereas another participant described trust exercises as 'clichéd' and 'boring'. Obtaining young people's input throughout program development via consultation methods may be an effective strategy of ensuring activities and examples are consistent with youth culture and not perceived by adolescents as artificial or patronising.

Valuing Difference

A strong message emerging from the current study was that there is not a one-size fits all approach to mental health. For example, individual difference factors (e.g., age, gender, personality) may influence how appealing young people find different approaches. Wherever possible, ensuring mental health programs use a range of mediums (e.g., small

group format, drop-in centres, and Internet based services) may cater for the preferences of a wide range of adolescents. However, while this approach is ideal, using multiple strategies can be resource intensive and expensive. Therefore, the challenge for mental health professionals is thinking of creative ways of supporting individual differences and needs while minimising resources and expenses. Potential strategies include: (a) using a wide range of activities (e.g., games, group discussions, music based activities) to cater for individual preferences; and (b) offering participants choice between a few alternatives.

Innovation in Youth Mental Health Provision

Participants' ideas emphasised some of the complexities of youth mental health provision. For example, there was tension between participants' desire for mental health programs to be fun and their wish not to be treated as children. Important developmental task of adolescence are establishing independence from adult figures (parents, carers, teachers) and developing unique strategies of interacting with the world (Steinberg & Morris, 2001). Therefore, adolescents may be especially resistant to, or critical of, ideas or strategies recommended by adult authority figures. In order to showcase innovation in youth mental health provision, this paper will explore how two organisations, namely Reach Out and the Reach Foundation, are engaging young people as partners in the creation of authentic and youth appropriate mental health programs and resources. It is believed that involving young people in the development and delivery of mental health programs may decrease the possibility that young people will feel patronised and increase the possibility they will feel valued and inspired.

Reach Out is an Internet based initiative that provides mental health information and resources to young Australians (aged 16 to 25) (The Inspire Foundation, 2010). A core

tenant of the Reach Out approach is collaboration between adult experts and young volunteers (Oliver et al., 2006). For example, evidence based fact sheets on a range of topics (e.g., depression, well-being, sexuality, and seeking help) are written by mental health professionals and reworded by young volunteers into youth appropriate language (Burns, Morey, Lagelée, Mackenzie, & Nicholas, 2007). Similarly, an online discussion forum is facilitated by young people (and supervised by mental health professionals) and provides the opportunity for young people to share their stories and experiences, which is consistent with the ideas suggested by participants in the current study.

Participants in the current study recommended that programs be fun and experiential and use a wide variety of approaches. In order to keep adolescents motivated, Reach Out provides a diverse range of interactive strategies. For example, an online interactive game (i.e., Reach Out Central) is used to teach young people resiliency skills based on a cognitive behavioural therapy framework (Burns et al., 2007). Similarly, portable digital media and social networking facilities (e.g., forums, podcasts, and short message services) are used to cater for individual preferences (The Inspire Foundation, 2010). Since 1998 over six million users have accessed Reach Out which is testament to the success of the youth participation approach and the Internet's ability to reach a wide audience (including those who may be hesitant to seek help or who are located in geographically isolated areas) (Burns et al., 2007).

Another organisation that successfully uses participation techniques in the provision of adolescent mental health programs is the Reach Foundation. Reach is a not-for-profit community organisation aimed at supporting the mental health and well-being of adolescents aged 10-18 (The Reach Foundation, 2010). Reach uses an creative approach in

that mental health programs and workshops are delivered by a team of young people aged 15 to 25 years old (i.e., the REACH Crew) who are supported and supervised by mental health professionals. Participants in the current study believed that hearing about the experiences of other similar individuals is useful and interesting. Consistent with this, Reach's vision statement is 'young people inspiring young people' (The Reach Foundation, 2009) as it is believed that young facilitators sharing their stories will create a meaningful and inspiring experience for adolescents. Moreover, engaging young people as program facilitators decreases the probability that participants will feel treated like children. Over 58,000 adolescents take part in Reach programs annually and workshops are implemented in over 500 schools (The Reach Foundation, 2009) which supports the utility and feasibility of the approach.

Limitations, Challenges, and Future Directions

A limitation of the current study was that participants self selected into both the larger study and the phone interviews. This introduces bias as participants who took part may have been passionate about mental health and confident in their ability to communicate their ideas. A second limitation of this research is that few males took part. Unfortunately, this parallels young men's low participation rates in other studies (Cohen et al., 2009; Stafford et al., 2003). Targeting consultation and participation methods to subgroups of the population who may be resistant to traditional approaches such as adolescent males (Cohen et al., 2009; Stafford et al., 2003) or young people whom are at-risk is a research and practical priority. Furthermore, using a range of consultation techniques (e.g., phone interviews, focus groups, online surveys) may be a useful strategy

in order to foster inclusion of individuals who may not be attracted to traditional approaches (AICAFMHA, 2008; Stafford et al., 2003).

Youth participation and consultation approaches are based on the assumption that young people have a firm understanding of themselves and their needs. However, there is significant evidence that individuals are biased decision makers who do not accurately predict the impact of their choices on well-being (Wilson & Gilbert, 2003). For example, participants in the current study felt that written reflection should be avoided and warned that such approaches may feel too much like school. However, there is a strong body of research that suggests expressive writing (in particular writing about the experience of emotions) has positive consequences for mental health (Pennebaker, 1997; Soliday, Garofalo, & Rogers, 2004). The implications of this are that young people's ideas must be balanced with rigorous research findings in order to identify and resolve tensions between what young people believe is good for them and approaches believed to lead to meaningful well-being change.

Conclusions

A priority in the consultation process is the dissemination of results to: (a) the young people who take part; and (b) other program developers and mental health professionals. Research suggests that without meaningful impact young people can feel that their input is tokenistic (Stafford et al., 2003). Therefore, providing feedback to young people about how their ideas are influencing mental health initiatives is important. Similarly, in order to avoid re-inventing the wheel, increased communication and dissemination of the outcome of youth consultation practices (e.g., through networks, conferences, and publications) should continue.

It is proposed that innovative and relevant approaches are needed to increase adolescent engagement with mental health services. Participants' willingness to share their ideas combined with their concerns that programs developed by adults can be patronising and/or inconsistent with youth culture supports efforts to engage young people as partners in all stages of mental health program development. Furthermore, the success of participation methods used by Reach Out and The Reach Foundation provides support for the feasibility of involving young people in the delivery of mental health initiatives. In sum, these findings reinforce the importance of creating respectful partnerships where the contribution young people make to mental health research and services is highly valued.

Table 1

Recommendations for Mental Health Professionals Working with Adolescents

1.	Engage young people as partners in program development and delivery.
2.	Include a wide range of activities in order to cater for a diverse range of preferences and maintain interest.
3.	Use multimedia – music, videos, YouTube clips (ideally with adolescents’ input).
4.	Do not try to fit in with youth culture (e.g., use trendy language) without young people’s collaboration.
5.	Integrate case studies and stories of people of similar age and experiences and/or ones shared by participants.
6.	Where possible, support young people’s need for autonomy and respect personal choices and boundaries.
7.	Do not coerce or pressure young people to share information in groups when they are not comfortable doing so.
8.	Be open towards, and respectful of, individual differences (e.g., gender, culture, sexuality, personality).
9.	Focus on listening to adolescents in order to ensure they feel valued and respected.
10.	Ensure mental health programs are advertised and accessible in terms of cost and locality.

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Chapter 7: Intervention Development

The purpose of this thesis was to develop and test highly engaging PPIs for adolescents. Once the exploratory stages were completed, the next objective was to develop the PPIs. The purpose of this chapter is to provide an overview of key decisions in the intervention development process and discuss opportunities and challenges. First, a brief overview of the PPIs will be provided. Second, the rationale for key decisions in terms of the research design and intervention format and delivery will be explored. This discussion will bring together existing research with outcomes of the youth consultation process described in the previous chapter.

The Full Life Intervention

The first PPI was designed to teach adolescents positive psychology concepts that were identified during the literature review and explored during the predictors of mental health study (i.e., hope, gratitude, strengths use, and orientations to happiness). Due to its comprehensive approach, and the integration of several positive psychology activities, this PPI was named the *full life intervention*. More specifically, the full life intervention aimed to facilitate a life high on pleasure (i.e., positive emotions and experiences); engagement (absorption in meaningful challenges); *and* meaning (purpose in life) (Peterson, Park, & Seligman, 2005). In the predictors of mental health study, hope, gratitude, and strengths use were the strongest and most consistent predictors of positive and negative indicators of mental health. Therefore, the full life intervention maintained a strong focus on these three concepts.

Finding an Appropriate Comparison Control

Finding or creating an appropriate comparison condition for the PPI posed one of the most substantial challenges of this thesis. Initially, the aim was to create a placebo condition that was inert but accounted for extraneous influences such as group membership, attention from an adult figure, and expected increases in well-being (i.e., the placebo effect) (Merry, McDowell, Wild, Bir, & Cunliffe, 2004). However, finding or developing an appropriate placebo condition proved difficult. Some PPI studies have been critiqued for using comparison conditions that induce negative effect (i.e., counting daily hassles) (Froh, Kashdan, Ozimkowski, & Miller, 2009; Froh et al., 2008). Furthermore, in prevention research, interventions designed to be placebos have included elements that may have an impact on mental health such as relaxation techniques (Masia, Klein, Storch, & Corda, 2001) and communication skills and goal setting (Gillham et al., 2007).

Of the three orientations to happiness (i.e., pleasure, engagement, and meaning), pleasure has been found to have the smallest association with well-being (Peterson et al., 2005; Vella-Brodrick, Park, & Peterson, 2009). Similarly, in the predictors of mental health study, pleasure was not a significant predictor of any mental health outcome variables (with beta weights ranging from .05 for positive affect to .23 for negative affect in multiple regression analyses). Therefore, a decision was made to create a comparison condition that focused on cultivating and appreciating life's simple pleasures. The simple pleasure intervention was deemed to be an appropriate comparison to the full life intervention as, while it was designed to be fun and interactive, it did not contain the positive psychology variables believed to have the most impact on well-being (i.e., gratitude, hope, and strengths use). Furthermore, it was believed that the single component simple pleasures

intervention would be an appropriate and interesting contrast to the full life intervention that entailed a more holistic approach. In order to facilitate effective comparison, the two interventions were matched as closely as possible in format, delivery style, and duration. Summaries of the full life and simple pleasures interventions are provided in Appendix G.

Delivery Format

Important decisions in terms of the delivery of the PPIs were: (a) whether to deliver the PPIs at schools or in community settings; (b) whether to deliver the PPIs via the Internet or face-to-face; and (c) who should facilitate the PPIs. Consistent with the youth consultation approach, the 28 phone interview participants were asked their preferences for school or community delivery. One phone interview participant raised concerns over the ability of school-based programs to reach certain groups of the populations (i.e., adolescents who had dropped out of school). However, the majority of participants (i.e., 64.3%) indicated a preference for school-based delivery. In particular, phone interview participants believed that only a small proportion of adolescents would attend mental health programs in their own time, and therefore a school-based approach would increase the reach and influence of the PPIs. Indeed, schools provide an effective medium for delivering mental health initiatives to a wide audience (World Health Organization, 1994).

The majority of participants (i.e., 82.2%) also indicated a preference for face-to-face programs as opposed to Internet based programs. Adolescents felt that interpersonal contact was an important component of mental health programs (e.g., “it should be delivered in small groups because then you can actually talk to people”). Therefore, the PPIs were designed to be delivered in small groups in school settings. Participants’ clear preference for interventions with personal contact is in conflict with previous research that has found

adolescents view the Internet as a credible and feasible source of health information (Gray, Klein, Noyce, Sesselberg, & Cantrill, 2005). While the current sample was small, this finding emphasises that mental health services delivered over the Internet do not appeal to all adolescents and interpersonal contact is an important component of mental health programs for some young people.

Another important decision revolved around who should deliver the PPIs. Three possibilities were identified: (a) the student researcher; (b) young people trained by the student researcher; or (c) school staff. While many advantages of using young people as facilitators were identified during the youth consultation process, it was deemed this approach was not appropriate at such a preliminary stage of investigation. More specifically, it was believed that using young people (who are not trained as mental health or educational professionals) in the PPI delivery may increase the risk to participants if sensitive or personal topics were discussed.

An important component in disseminating mental health information is enabling schools to be self-sufficient in terms of the implementation of well-being initiatives. Therefore, training school staff was deemed to be an advantageous approach that offered insight into the ecological validity of the PPIs (i.e., the effectiveness of delivering the interventions in real life conditions) and the possibility of disseminating outcomes to similar schools (Flay et al., 2005; Harnett & Dadds, 2004). Furthermore, utilising school resources (as opposed to external resources) leads to improved sustainability (Elliott & Mihalic, 2004). However, future research comparing the effectiveness of PPIs delivered by young people with those delivered by professionals or school staff would give useful insight into the utility and impact of such approaches.

Recruitment Challenges and Successes

Developing a partnership with a school in order to run the RCT posed the second major challenge of this research. While numerous schools were interested in the PPIs, few schools were open to the RCT design as it was felt that random allocation disadvantaged children not allocated to the full life condition. Furthermore, often the school welfare team (i.e., psychologists, social workers, counsellors, and nurses) were interested in taking part in the study, but felt that they did not have a fully supportive environment necessary for the study to be effectively implemented. Before a successful partnership was formed, two schools withdrew from the study due to: (1) staff changes; and (2) concerns over disruption to the school time table.

The staff at the third school demonstrated a strong commitment to the study and viewed it as a valuable opportunity to gain professional development in positive psychology. Importantly, members of the school leadership *and* the welfare team were committed. The leadership team viewed the study as an opportunity to up-skill staff members in positive psychology concepts that would be useful for wider dissemination once the RCT was completed. Therefore, the partnership school strongly desired that their staff (as opposed to the researchers or adolescent facilitators) were trained to deliver the PPIs thereby reinforcing the decision to use school staff in PPI delivery.

Two remaining challenges were: (1) how to execute the study without posing too much disruption to the school timetable; and (2) how to engage students in the comparison control condition. The school had run health days with the Year 10 students on several previous occasions and it was seen as a usual care approach to physical and mental well-

being (Flay et al., 2005). Topics covered included making healthy food choices, healthy relationships, safe sex, and drug and alcohol awareness. Therefore the school's health day was viewed as a valuable opportunity for inclusion in the RCT. In terms of the research design, this meant that the majority of the PPI content would be delivered in a one day workshop as opposed to weekly sessions. In addition to posing less disruption to the school timetable than sessions delivered over several weeks, this approach meant students allocated to the comparison condition would be engaged in valuable activities thereby decreasing perceived inequality which can often result from non-active control conditions. One concern with providing all of the PPI content in one day was that participants would not have the opportunity to integrate positive psychology concepts between sessions, process the information, or practice the activities. Therefore, a decision was made to include practice activities that gave participants a structured approach to implementing the positive psychology strategies in their daily lives.

Additional Implications of the Youth Consultation Process

Additional implications of the first youth consultation process in terms of the PPIs can be summarised in five areas. First, young people's recommendations from the consultation formed an integral part of the training of program facilitators. In particular, the importance of listening and valuing young people was extensively discussed. Second, information on the consultation process was built into the PPI introduction in order to increase the program credibility and make an explicit acknowledgement that young people have a unique understanding of their lives and culture.

The third priority was to cater for individual difference factors and avoid a one-size fits all approach. More specifically, a wide range of activities (e.g., games, challenges,

group discussion, pair based discussions, and written reflections) were included to cater for individual preferences. Fourth, priority was placed on supporting participants' needs for autonomy. More specifically, program participants were encouraged to explore their *person-activity fit* (Lyubomirsky, 2007) with each activity, that is, to explore which activities resonated with their unique values and personality. They were then encouraged to select activities (e.g., using their strengths or cultivating gratitude) that appealed to them to apply in their lives. Finally, a decision was made to conduct a second consultation process using a different medium (i.e., online surveys) in order to obtain young people's recommendations into specific elements of the PPIs to ensure that the examples used were age appropriate and realistic.

In summary, combining existing research with adolescents' ideas and preferences and school-based constraints resulted in a decision to deliver the PPIs in small groups in school settings within the context of a whole school health day. Students who consented to taking part in the study were randomly allocated to one of the three conditions: the full life intervention, the simple pleasures intervention, or the school's usual health day. The interventions were designed to be delivered by trained staff members. The next objective was to finalise specific elements of the PPIs using youth consultation approaches.

Chapter 8: The Panel Study and Introduction to the Randomised Controlled Trial

The objectives of this chapter are to provide an overview of the second youth consultation process (i.e., the panel study) and to introduce the RCT. Engaging in a second consultation process is consistent with best practice as it: (a) obtains input from a different sample of adolescents' thereby increasing representation and inclusion; and (b) enables the consultation to be a flexible process with ideas evolving over time. While the first consultation stage (i.e., the phone interviews) informed key decisions (such as the decision to deliver the PPIs in small groups at schools), the second consultation process was designed to obtain specific information that would ensure the PPIs were authentic and youth appropriate without being patronising. Therefore, the purpose of the panel study was to gain adolescents' advice and feedback on specific aspects of the full life and simple pleasures interventions in order to maximise appeal and effectiveness. Where possible, the findings were applied to both PPIs equally. The first aim of this chapter is to provide an overview of the panel study results and discuss how these ideas informed the development of the PPIs. The second aim is to introduce the school-based RCT and Publication 4 titled, *A Randomised Controlled Trial of School-based Positive Psychology Interventions*.

The Panel Study

Participants in the second consultation process (i.e., the panel study) were informed that they would form part of an expert panel that would provide input and advice on the format and design of a mental health program. An online questionnaire was used as this approach has been recognised by adolescents as inclusive of young people who may not feel confident to voice their opinions verbally (Stafford, Laybourn, Hill, & Walker, 2003). The panel study was designed to obtain participants' ideas and feedback on five key topics:

(a) their interest in positive psychology concepts (e.g., pleasure, gratitude, and strengths); (b) their views on information delivery and activity formats (e.g., group discussion, individual reflection); (c) their recommendations for multi-media (e.g., songs and YouTube clips) to be included in the PPIs; (d) their recommendations on examples used in specific intervention activities (e.g., role models and simple pleasures); and (e) their opinion on the overall structure of the PPIs (e.g., duration, timing of breaks).

Summary of the Panel Study Methodology

Participants were 57 Australian adolescents aged 14 to 17 (M age = 16.23, SD .99). Nineteen males and 30 females took part in the panel study (with eight gender unreported). Similar to the exploratory study, participants were recruited from Australian organisations and listserves (explanatory statements and consent forms are provided in Appendix C). Participants completed a semi-structured questionnaire including open ended questions and questions with Likert scale response options. Nine questions asked about participants' perceptions of intervention content; four questions related to information delivery; seven questions focused on multi-media (e.g., songs and YouTube clips); three questions related to specific intervention activities; and eight questions concerned the interventions overall (e.g., duration, breaks, additional considerations). The panel study questions are provided in Appendix F. Participants completed the battery of questionnaires online via Surveymethods (www.surveymethods.com.au) at a time and location suitable to themselves.

Results and Discussion

Participants were asked to rate their interest in positive psychology concepts on a five-point scale ranging from 1 = *not at all interested* to 5 = *extremely interested*. Means and standard deviations are provided in Table 1. Overall, participants expressed interest in

all of the topics covered in the full life and simple pleasures interventions and therefore it was concluded that the PPIs had good face validity. Of all the concepts covered in the PPIs, participants expressed the most interest in exploring strengths and setting effective goals (which is a component of hope) (Snyder, 2002). Interestingly, strengths and hope were consistently linked with good mental health in the predictors of mental health study. Therefore, the decision to focus primarily on these concepts in the full life intervention was reinforced.

Table 1

Participants' Interest in Positive Psychology Concepts

Positive psychology concept	M	SD
Life's simple pleasures	3.42	1.02
Savouring pleasurable experiences	3.61	.92
Identifying strengths	3.81	1.09
Using strengths more often in life	4.16	.85
Things that make life engaging	3.71	1.10
Things that make life meaningful	3.58	1.23
Gratitude	3.39	1.04
Hope	3.72	1.18
Setting effective goals	4.02	1.11

Note. N = 57.

Participants were asked to rate how useful they found different types of activities on a five-point scale ranging from 1 = *not at all useful* to 5 = *extremely useful*. Consistent with the results of the phone interviews, participants in the panel study demonstrated a strong preference for interactive activities and group discussions and preferred these methods of

delivery to pair based discussions or individual reflection (means and standard deviations are provided in Table 2.) Therefore, while a variety of delivery methods were used in both PPIs in order to cater for individuals with different learning styles (Nation et al., 2003), priority was given to interactive activities and group discussions.

Table 2

Participants' Preferences for Various Activities

Type of activity	M	SD
Experiential activities	4.29	.91
Group discussion	3.76	1.01
Pair discussion	3.26	1.08
Writing/individual reflection	2.92	1.09

Note. N = 57.

Participants recommended a wide variety of music videos and YouTube clips. Music and YouTube clips suggested by participants were included in the PPIs if they were: (a) ethically appropriate (e.g., no derogatory language); and (b) consistent with the goals of the intervention. For example, songs by Pink and Cold Play recommended by participants were used in a session of the simple pleasures intervention that focused on appreciating sound.

Participants' recommendations were also used to finalise specific activities. For example, public figures highly recommended or endorsed by participants (e.g., Cathy Freeman, Albert Einstein, and Bono from the band U2) were included in an activity that was designed to use role models to explore VIA character strengths (Steen, Kachorek, & Peterson, 2003). Similarly, panel participants' favourite simple pleasures (e.g., "reading a book by a window as it's raining" and "being snuggled up by the fire") were integrated

throughout the simple pleasures intervention (as long as they were appropriate and inexpensive). Pictures of recommended simple pleasures (e.g., “walking along the beach”) were added to the intervention workbooks and training materials.

Panel participants provided feedback on the duration and format of the workshop. The majority of participants (i.e., 73.7%) reported that five hours was a suitable amount of time as breaks were regularly included. A high percentage (i.e., 88.6%) of respondents reported that it was very important that participants be given the opportunity to ask questions. A moderate number of participants (i.e., 58.3%) reported that it was very or extremely important that information on the evidence behind the positive psychology concepts was included. Therefore, structured question opportunities were built into the PPIs and a moderate amount of background information was provided.

Professional Feedback and Finalising the PPIs

Once panel participants’ ideas were integrated into the PPIs, four professionals who had experience in positive psychology (i.e., a clinical psychologist, an educational psychologist, a psychiatrist, and another student completing a thesis in school-based PPIs) were asked to review the PPIs. An important process was the examination of whether any aspect of the PPIs could be harmful to young people. Overall, the feedback was positive with constructive remarks made about the interactive nature of the PPIs. Furthermore, all professionals deemed the workshops to be low risk.

One point raised by two of the professionals was that core components of the simple pleasure intervention overlapped substantially with mindfulness and therefore this intervention may be more powerful than initially anticipated. While the simple pleasures intervention did not include any structured mindfulness meditation sessions, it did include

activities that may promote mindfulness such as focusing on the present and attending to the senses (Huppert & Johnson, 2010). This feedback reinforced the difficulty of selecting or developing inert placebo conditions in school-based intervention studies.

Introduction to the RCT and Training Staff Members

Once the exploratory studies were completed and the full life and simple pleasures interventions were finalised the next objective was to execute the school-based RCT. The first stage in this process was to train the school staff members. The school leadership team selected two staff members to deliver each of the interventions based on perceived suitability and time table considerations. In addition, the school health promotion nurse attended the training. Staff training was conducted approximately four weeks prior to the administration of the PPIs. Training for each PPI involved one day (i.e., six hours), followed by an hour follow-up session two weeks later.

As the experts who had provided feedback on the interventions were all from mental health backgrounds, the school staff members were encouraged to give feedback on the PPIs from an education point of view. Overall, school staff felt the PPIs were valuable and youth appropriate. However, based on their feedback, several minor changes were made. For example: (a) pictures in both interventions were changed to reflect Australian themes; (b) some words in the student workbooks were simplified; and (c) the importance of keeping the student workbooks confidential was made explicit.

Consent and Duty of Care

Subsequent to training staff members, informed consent was sought from participants and from parents/carers (explanatory statements and consent forms are provided in Appendix C). One challenge was that students were slow to return consent

forms. Staff members believed that this did not necessarily reflect disinterest in the study but that students were generally slow at returning consent forms due to student or parent/carer forgetfulness or busyness. Unfortunately, active parental consent (i.e., where parents/carers provide documented permission compared with passive procedures where consent is assumed unless a parent/carers requests their child be excluded) are believed to result in under representation of at-risk children (Esbensen, Miller, Taylor, He, & Freng, 1999). Strategies used to increase consent rates and support inclusion were: (a) presenting a summary of the research at the school assembly; (b) providing information at the teacher/parent information night; and (c) sending out explanatory statements and consent forms several times. In the end, 72.0% of Year 10 students consented to taking part in the study.

Another challenge was that one of the staff members who had been trained to deliver the simple pleasure intervention left the school just prior to the execution of the RCT. Fortunately, the school health promotion nurse had attended training and was capable of delivering the simple pleasures intervention. Therefore, in order to ensure that there was sufficient support for the students, a nurse from another school was brought in to provide assistance to the school welfare team during the study as a protective mechanism.

Executing the Randomised Controlled Trial

Participants completed a battery of questionnaires approximately one week prior to the health day (questionnaires are provided in Appendix D). Students who consented to take part in the study were randomly allocated to one of the three study conditions (i.e., the full life intervention, the simple pleasures intervention, or the health day condition). Students who did not consent to taking part in the study were assigned to the usual health

day. Participants also completed questionnaires one week post-intervention and at two months post-intervention. More information on the method, as well as discussion of the results and practical and theoretical implications of this research, is provided in Publication 4 titled, *A Randomised Controlled Trial of School-based Positive Psychology Interventions*.

PLEASE REPLACE THIS PAGE WITH THE SIGNED DECLARATION 9.

Declaration by candidate: In the case of Chapter 9, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution
Collaborated on the development of the study design. Conducted the youth consultation process. Developed the manuals and materials for the two positive psychology interventions. Liaised with professionals for their feedback on the interventions. Collaborated on the selection of measures. Recruited partnership school. Conducted training of the school staff. Recruited participants and executed the study. Collated data and analysed results. Wrote initial, subsequent, and final drafts of the publication.	

The following co-authors contributed to the work.

Name	Nature of contribution
Dianne Vella-Brodrick	Collaborated on the development of the study design. Provided feedback on the two positive psychology interventions and the manuals and materials. Contributed to the selection of measures and proposed data analytic techniques. Provided guidance and feedback throughout all stages of executing the study and writing and editing the publication.

Declaration by co-author:

The undersigned hereby certify that:

- (13) the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.
- (14) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;
- (15) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;
- (16) there are no other authors of the publication according to these criteria;
- (17) potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and
- (18) the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

Location

School of Psychology and Psychiatry, Monash University.

Signature

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Chapter 9: A Randomised Controlled Trial of School-based Positive Psychology

Interventions

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Abstract

This study examined the effects of two school-based positive psychology interventions on adolescent mental health. Ninety Australian Year 10 secondary school students (aged 14 to 17) were randomly allocated to one of three conditions: (a) a multi-component positive psychology condition; (b) a simple pleasures condition; and (c) the school's usual health comparison condition. The interventions were delivered by trained school staff and consisted of a one day workshop plus two weeks of practice activities. Participants completed questionnaires assessing positive (e.g., life satisfaction and well-being) and negative (anxiety, depression, and stress) indicators of mental health at pre-intervention, post-intervention, and two months follow-up time points. As predicted, participants reported reduced anxiety and stress post-intervention. However, contrary to expectations, the positive psychology interventions did not lead to enhanced well-being relative to the control condition. This finding adds weight to emerging evidence that positive psychology interventions in their current form are less effective with adolescents than adults. It is recommended that future research explore the underlying mechanisms (such as motivation, individual difference variables, and developmental factors) that influence the effectiveness of positive psychology interventions in adolescent samples.

Keywords: youth, adolescence; positive psychology; mental health; strengths.

One of the primary achievements of positive psychology has been the development and testing of interventions aimed at cultivating well-being and positive emotions in addition to alleviating mental distress (Sin & Lyubomirsky, 2009). This approach is based on the premise that mental health is more than the absence of mental pathology and that helping individuals to live happy and flourishing lives are important goals (Keyes, 2007). Positive psychology interventions (PPIs) are defined as volitional activities that aim to enhance well-being and promote mental health and focus on changing individuals' feelings, behaviours, and/or cognitions (Sin & Lyubomirsky, 2009). PPIs include: identifying and applying strengths (Seligman, Steen, Park, & Peterson, 2005); savouring simple pleasures (Bryant & Veroff, 2007); cultivating gratitude by thinking about daily blessings (Froh, Sefick, & Emmons, 2008); and practicing random acts of kindness (Otake, Shimai, Tanaka-Matsumi, Otsui, & Fredrickson, 2006). In a meta-analysis of 51 studies ($N = 4,266$), Sin and Lyubomirsky (2009) found that PPIs significantly enhanced well-being (effect size = .29) and alleviated symptoms of depression (effect size = .31) suggesting that PPIs have a valuable role to play in mental health.

One area of interest has been the application of positive psychology with adolescents and in schools (Clonan, Chafouleas, McDougal, & Riley-Tillman, 2004; Gilman, Huebner, & Furlong, 2009). Applying positive psychology with young people acknowledges the high prevalence of adolescent mental health problems (Ravens-Sieberer, Erhart, Gosch, & Wille, 2008; Sawyer et al., 2000) and recognises that adolescents without diagnosable clinical disorders may not be flourishing (Keyes, 2006). Furthermore, positive psychology has potential utility in school settings as good mental health is a requisite of effective learning (Mission Australia, 2010; World Health Organization, 1994) and positive

emotions have been found to foster creative and open thinking (Fredrickson, 2001; Isen, Daubman, & Nowicki, 1987).

The Full Life

Peterson, Park, and Seligman (2005) propose that well-being can be achieved via three routes or *orientations*: pleasure, engagement, and meaning. The pleasure orientation to happiness focuses on sensory gratification with the aim of maximising pleasure and minimising pain. Engagement is based on Csikszentmihalyi's (1990) *flow* theory and involves absorption in challenging and intrinsically motivating tasks. Meaning results from purpose in life, personal growth, and altruism (Vella-Brodrick, Park, & Peterson, 2009). Research in adult populations has found value in a holistic approach to well-being that achieves balance between all three orientations (i.e., the *full life*); although engagement and meaning have been found in regression analyses to be the stronger predictors of subjective well-being (i.e., satisfaction with life, and positive and negative affect) (Peterson et al., 2005; Vella-Brodrick et al., 2009).

In terms of research in younger samples, Froh, Kashdan, Yurkewicz, Fan, Allen, and Glowacki (2010) explored engaged living which is defined as a two component construct consisting of absorption (immersion in activities) and social integration (i.e., helping others and altruism). In five studies of adolescents ($N = 2,198$; aged 11 to 18), Froh, Kashdan et al. (2010) found engaged living to be positively associated with well-being (e.g., positive affect and life satisfaction) and academic (e.g., grade point average) outcomes. Most interestingly, in the fifth study ($N = 700$) engaged living at one time point was found to predict well-being (e.g., life satisfaction, gratitude, teacher ratings of

happiness) and academic outcomes such as grade point average and negative school behaviours 3 and 6 months later.

A key component of the full life is the ability to identify and apply strengths in: (a) activities that result in engagement; and (b) activities that contribute to the greater good (Peterson et al., 2005). Seligman and Peterson (2004) developed the Values in Action (VIA) classification of 24 strengths based on a historical study of virtues common across cultures. In adult samples, the VIA strengths (e.g., leadership, humour, and fairness) have been found to be cross-culturally relevant (Biswas-Diener, 2006; Park, Peterson, & Seligman, 2006) and to have positive associations with well-being (Park, Peterson, & Seligman, 2004; Peterson, Ruch, Beermann, Park, & Seligman, 2007). Furthermore, the benefits of using strengths for mental health have been confirmed by correlational (Govindji & Linley, 2007) and experimental (Seligman et al., 2005) research. Steen, Kachorek, and Peterson (2003) conducted 20 focus groups with adolescents ($N = 459$; aged 14 – 19) and found that participants demonstrated a strong understanding of strengths and considered the development of strengths to be a worthy goal. Thus encouraging adolescents to explore and use their strengths appears to have utility and feasibility.

Two specific strengths that have been consistently associated with well-being are gratitude and hope (Froh, Bono, & Emmons, 2010; Park et al., 2004; Snyder, 2002). Gratitude is defined as a positive and grateful affective response to positive events and/or the benevolence or kindness of others (McCullough, Emmons, & Tsang, 2002). In a study of 700 adolescents (aged 10 – 14), Froh, Bono et al. (2010) found that baseline gratitude lead to an upward spiral of life satisfaction and social well-being over a six month period. Snyder (2002) defined hope as a cognitive, motivational process with three components:

goals, pathways (i.e., strategies to achieve the goals), and agency (i.e., motivation to implement the strategies). Valle, Huebner, and Suldo (2006) conducted a study of 860 adolescents (aged 10 – 18) and found that individuals with high hope at one time point reported higher life satisfaction 12 months later when compared with adolescents with low initial hope (after controlling for baseline life satisfaction scores). Therefore, there is emerging evidence that hope and gratitude are psychologically beneficial for adolescents.

PPIs and Adolescence

While there is a mounting correlational research that has found strong associations between positive psychology variables and adolescent mental health, experimental research that tests the efficacy of PPIs in adolescent samples is still in the formative stages. In Sin and Lyubomirsky's (2009) meta-analysis of 51 studies, only three PPI studies focused on children and adolescents under the age of 18. Furthermore, the success of PPIs was found to increase linearly with age (i.e., mean r effect sizes of .14 for children and adolescents under 17 compared with effect sizes ranging from .23 to .50 for older age groups).

Similarly, Seligman, Ernst, Gillham, Reivich, and Linkins (2009) completed a study where 347 year 9 students were randomly allocated to either a positive psychology intervention or a usual language arts condition. Students allocated to the positive psychology condition were found to have improved engagement with school and social skills relative to controls, however, no changes in well-being, depression or anxiety were evident. Taken together, these studies provide emerging evidence that PPIs in their current form are not resulting in the full range of desired improvements in adolescent mental health and well-being. Therefore, further exploration into how to target PPIs specifically to the needs and preferences of younger individuals is important.

Youth Consultation and the Current Study

It is possible that PPIs developed by adults are not engaging to adolescents or consistent with youth culture. One approach to creating attractive interventions for adolescents is via youth consultation methods. Youth consultation is defined as activities that involve young people in the development and delivery of mental health programs thereby facilitating appealing, engaging, and youth appropriate approaches to mental health (Powers & Tiffany, 2006).

The current research combined existing research in positive psychology with youth consultation methods to develop two PPIs for adolescents. A two stage consultation process was used where: (a) 28 adolescents ($M\ age = 15.77, SD = 1.09$) completed phone interviews that explored their recommendations on how to make interventions appealing and engaging; and (b) 57 adolescents ($M\ age = 16.23, SD .99$) completed an online battery of questionnaires where they made specific recommendations of songs, YouTube clips, and examples that could be included in the PPIs (more information on this process is available from the authors). Adolescents' ideas were combined with existing evidence-based methods and activities in positive psychology in order to develop two youth-focused PPIs.

The first PPI (i.e., the full life intervention) was a holistic approach that cultivated pleasure, engagement, meaning, strengths, hope, and gratitude. Based on the pleasure orientation to happiness (Peterson et al., 2005), the second intervention focused on savouring and appreciating life's simple pleasures. The simple pleasures intervention was believed to be a worthwhile comparison to the more holistic full life intervention as a high focus on pleasure is consistent with dominant messages in the media that happiness can be achieved via hedonistic pursuits (Chaplin, 2009).

A school-based randomised controlled trial (RCT) was used to test the effectiveness of two PPIs. The PPIs were compared to the school's usual health program that involved presentations on health topics believed to be important for adolescents such as safe sex and drug and alcohol awareness. The interventions consisted of a day long (i.e., five hour) workshop plus two weeks of practice activities and were delivered by trained members of the school staff. Predictions were that the full life and simple pleasures interventions would lead to increased well-being and decreased depression, anxiety, and stress compared to the usual health comparison condition. Furthermore, it was hypothesised that benefits would be maintained for two months post-intervention. Of the two PPIs, it was proposed that the more holistic full life intervention would have a more powerful and lasting impact on positive and negative indicators of mental health.

Method

Participants

Participants in this study were 90 Australian adolescents (53.3% male) aged 14 to 17 ($M = 15.22$; $SD = .54$). Participants were Year 10 students at a public secondary school in Victoria, Australia. Participants reported being from the following cultural backgrounds: Australian non-indigenous (71.1%); English/European (14.4%); Aboriginal or Torres Strait Islander (5.6%); and other (8.9%).

Materials

The Student's Satisfaction with Life Scale (SSLS; Huebner, 1991) is a seven-item scale that measures children and adolescents' global satisfaction with life. Participants respond to each item (e.g., 'my life is going well') on a six-point scale ranging from *strongly disagree* to *strongly agree*. Higher scores indicate higher life satisfaction. The

SSLS has been found to be reliable ($\alpha = .82$) and to correlate predictably with other measures of well-being (Huebner, 1991). In the current sample, the SSLS was found to have high internal consistency (pre-intervention $\alpha = .88$).

The *Short Warwick-Edinburgh Mental Well-being Scale* (SWEMWBS; Stewart-Brown et al., 2009) is a seven-item measure of mental well-being. The scale represents a wide conceptualisation of well-being and includes cognitive (i.e., satisfaction), affective (i.e., emotional), and psychological functioning components. Respondents rate each item (e.g., ‘I have been feeling close to other people’) on a five-point scale ranging from *none of the time* to *all of the time* with high scores indicating more mental well-being. The SWEMWBS has been found to have a strong correlation ($r = .95$) with the longer Warwick-Edinburgh Mental Well-being Scale (Stewart-Brown et al., 2009). In the current sample the SWEMWBS was found to have good internal consistency (pre-intervention $\alpha = .83$).

The *Depression Anxiety and Stress Scale – Short Form* (DASS; Lovibond & Lovibond, 1995) is a 21-item measure of an individual’s tendency to experience depression, anxiety, and stress. Respondents rate their experience of each item over the past week on a four-point scale ranging from 0 to 3. The DASS consists of seven items for each of the three subscales of depression (e.g., ‘I felt down-hearted and blue’); anxiety (‘I felt I was close to panic’); and stress (e.g., ‘I found it hard to wind down’). Higher scores indicate higher symptoms of depression, anxiety, and stress. The DASS has been found to have high internal consistency in a non-clinical sample (depression $\alpha = .82$; anxiety $\alpha = .90$; stress $\alpha = .93$) and to have good convergent validity with other measures of depression and anxiety

(Henry & Crawford, 2005). The DASS was found to have good internal consistency in the current sample (depression $\alpha = .89$; anxiety $\alpha = .86$; stress $\alpha = .81$).

Workshop materials.

Staff members involved in the delivery of the full life and simple pleasures interventions received a training manual that provided step-by-step instructions for intervention delivery. Power-point presentations were also provided. Participants allocated to the full life and simple pleasures interventions received a workbook (approximately 50 pages long) that included additional information on key concepts covered in the workshops, explained the practice activities, and provided space for participants to record their thoughts and ideas.

Procedure

Four staff members (i.e., three teachers and one health promotion nurse) were trained to deliver the PPIs by the first author. Two staff members received training in the simple pleasures intervention and two staff members received training in the full life intervention. Training for each intervention consisted of a one day (i.e., six hour) workshop plus a one hour follow-up session. In addition, the first author provided ongoing support throughout the execution of the study.

The Three Conditions

The full life intervention.

The full life intervention was a multi-component workshop that integrated several positive psychology strategies. More specifically, the full life intervention included activities that helped young people to: (a) identify and apply their strengths (Govindji & Linley, 2007); (b) explore sources of pleasure, engagement, and meaning in life (Peterson

et al., 2005); (c) cultivate gratitude and kindness (Froh et al., 2008; Otake et al., 2006); and (d) develop hope and set effective goals (Snyder, 1995). As opposed to a one-size fits all approach, participants were encouraged to reflect on their *person-activity fit* with the activities (that is, to explore which activities they found the most valuable and personally rewarding) (Lyubomirsky, 2007). The full life intervention consisted of a day long workshop, plus practice activities designed to be completed over a two week period. Participants were encouraged to select and try at least two activities that appealed to them. A summary of the key components of the full life intervention is included in Table 1.

Insert Table 1 about here

The simple pleasures intervention.

The simple pleasures intervention was based on Peterson et al.'s (2005) pleasure orientation to happiness and focused on exploring life's simple pleasures. Participants were introduced to simple savouring techniques such as attending to their experiences and taking time to appreciate life's joys (Bryant, 2003). The five senses of taste, smell, sound, sight, and touch were used as a framework for exploring simple pleasures. For example, activities included savouring foods (i.e., chocolate and fruit) and listening to and appreciating a range of different sounds and songs. Consistent with the full life intervention, the simple pleasures intervention consisted of one day (i.e., five hour) workshop, plus 12 practice activities. Participants were encouraged to complete at least 2 activities that appealed to them over a two week period. A summary of the key components of the simple pleasures intervention is also provided in Table 1.

Usual health comparison condition.

Participants allocated to the comparison condition took part in the school's usual health day program and attended presentations on health topics such as alcohol and drug awareness, partying safely, and sex education. This was a one day workshop delivered by members of the school welfare team. The health day did not include any practice activities.

Executing the Study

Informed consent was obtained from participants and from parents/carers. Participants were randomly allocated to the three conditions. Participants in each condition were randomly split in half resulting in six groups (two per condition) of approximately 13 to 15 students. The school allocated one day for all students to take part in the interventions. Participants completed the aforementioned questionnaires during school hours at three different time points (i.e., pre-intervention, one week post-intervention, and two months post-intervention). Students who were absent on any of the assessment days were contacted at a later date and invited to complete the questionnaires to ensure that the data set was as complete as possible.

Results

The statistical package SPSS V17 was used for all data calculations. Eighteen students were absent on the day of the intervention. In addition, several of the absent students had largely incomplete questionnaires or unusual response patterns. Therefore, these students were excluded from analysis as their lack of attendance was believed to reflect disengagement with the project and, hence, unreliable responses. Of the students who were absent, 11 had been originally allocated to the health day, four had been allocated

to the full life condition, and three had been allocated to the simple pleasures condition. The final sample comprised of 72 participants.

Missing data constituted less than 5.0% of the entire sample and appeared random. Missing data were replaced using the mean of participants' scores on the variable for the other two time points. Several univariate outliers were addressed using the truncation method as recommended by Tabachnick and Fidell (2007). The data did not appear to violate any other assumptions of multivariate analysis.

Preliminary Analyses

One way ANOVAs were used to explore pre-intervention differences on the study variables between the three conditions. There was a significant pre-intervention difference between conditions for mental well-being ($F(2, 69) = 6.71, p < .01$). Means and standard deviations for all variables are displayed in Table 2. There were no other significant pre-intervention differences between conditions indicating equality in life satisfaction, depression, anxiety, and stress ($p > .05$, two-tailed).

Independent measures t-tests were used to explore pre-intervention differences on study variables between males and females. Females reported significantly higher pre-intervention anxiety ($M = 5.91; SD = 3.32$) than males ($M = 3.32; SD = 3.42; t(70) = 2.62, p < .05$); and more stress ($M = 7.48; SD = 5.15$) than males ($M = 5.48; SD = 3.31; t(70) = 2.15, p < .05$). No significant differences were found between males and females for life satisfaction, mental well-being, or depression ($p > .05$, two-tailed).

Insert Table 2 about here

Analysis of Effects

Life satisfaction.

A 3 x 3 repeated measures ANOVA was used to assess differences in life satisfaction between the three conditions at the three time points. The main effect for time was not significant, Wilks' Lambda = .96, $F(2, 68) = 1.57$, $p = .21$ (partial eta squared = .04). The main effect for group was not significant, $F(2, 69) = 1.05$, $p = .37$ (partial eta squared = .03). The group by time interaction was also not significant, Wilks' Lambda = .95, $F(4, 136) = .94$, $p = .50$ (partial eta squared = .02).

Mental well-being.

A 2 x 3 repeated measures ANCOVA was used to assess differences in SWEMWBS scores between the three conditions at the post-intervention and follow-up time points (after controlling for pre-intervention SWEMWBS scores). The main effect for time was not significant, Wilks' Lambda = .99, $F(1, 68) = .41$, $p = .53$ (partial eta squared = .01). The main effect for group was not significant $F(2, 68) = 1.51$, $p = .23$ (partial eta squared = .04). The group by time interaction was not significant, Wilks' Lambda = .99, $F(2, 68) = .37$, $p = .69$, (partial eta squared = .01).

Depression.

A 3 x 3 repeated measures ANOVA was used to assess differences in depression between the three conditions across the three time points. The main effect for time was not significant, Wilks' Lambda = .96, $F(2, 68) = 1.30$, $p = .28$ (partial eta squared = .04). The main effect for group was not significant $F(2, 69) = 2.18$, $p = .12$ (partial eta squared = .06). The group by time interaction was also not significant Wilks' Lambda = .99, $F(4, 136) = .19$, $p = .94$ (partial eta squared = .01).

Anxiety.

A 3 x 3 repeated measures ANCOVA was used to assess differences in anxiety between the three conditions across the three time points after controlling for gender (as pre-intervention gender differences in anxiety were evident). The main effect for time was significant, Wilks' Lambda = .91, $F(2, 67) = 3.27$, $p < .05$ (partial eta squared = .09); indicating a pre-intervention ($M = 4.54$; $SD = 4.26$) to post-intervention ($M = 3.88$; $SD = 3.91$; $F(1, 68) = 4.60$, $p < .05$) decrease in anxiety; although these benefits were not maintained at the two month follow-up ($M = 4.11$; $SD = 4.38$ $F(1, 68) = .05$, $p = .83$). The main effect for group was not significant, $F(2, 68) = 1.00$, $p = .37$ (partial eta squared = .03). The group by time interaction was also not significant Wilks' Lambda = .97, $F(4, 134) = .45$, $p = .78$ (partial eta squared = .01).

Stress.

A 3 x 3 repeated measures ANCOVA was used to assess differences in stress between the three conditions across the three time points after controlling for gender (as pre-intervention gender differences in stress were evident). The main effect for time was significant, Wilks' Lambda = .79, $F(2, 67) = 8.79$, $p < .001$ (partial eta squared = .21); indicating a pre-intervention ($M = 6.29$; $SD = 4.13$) to post-intervention ($M = 5.51$; $SD = 3.30$; $F(1, 68) = 15.38$, $p < .001$) decrease in stress; although these benefits were not maintained at the two month follow-up ($M = 6.10$; $SD = 4.95$; $F(1, 68) = .59$, $p = .49$). The main effect for group was not significant, $F(2, 68) = 2.31$, $p = .11$ (partial eta squared = .06). The group by time interaction was also not significant, Wilks' Lambda = .92, $F(4, 134) = 1.33$, $p = .26$ (partial eta squared = .04).

Discussion

This study examined whether two PPIs were effective in enhancing youth mental health relative to a more traditional health program. Participants allocated to the full life, simple pleasures, and health day conditions reported reduced anxiety and stress post-intervention. This suggests that taking part in any of the three interventions had a beneficial impact on negative indicators of adolescent mental health (although benefits were not maintained at the two month follow-up time point). This finding is consistent with numerous studies that have found school-based programs to be effective in reducing adolescent mental ill-health (for reviews see Horowitz & Garber, 2006; Merry, 2007). Furthermore, it reiterates that group membership, attention from adult figures, and devoting attention to health topics impact adolescent well-being (Merry, McDowell, Wild, Bir, & Cunliffe, 2004).

Despite the focus on creating interventions that were highly appealing and engaging to young people (via youth consultation methods) no significant improvements in depression or well-being were evident across any of the study conditions. Similarly, there was no support for the utility of the holistic full life intervention compared to the simple pleasures intervention. Enhancing well-being is particularly challenging as individuals must overcome hedonic adaptation which is the tendency for humans to rapidly adapt to changes in their environment leading to remarkably constant levels of well-being over time (Diener, Lucas, & Scollon, 2006). While contrary to expectations, the findings that the PPIs did not yield significant well-being benefits aligns with emerging evidence that PPIs are more effective with adults than adolescents (Sin & Lyubomirsky, 2009).

A More In-depth Exploration

Correlational data clearly shows a positive association between mental health and variables such as hope, gratitude, and strengths use, and mental health (Froh, Yurkewicz, & Kashdan, 2009; Govindji & Linley, 2007; Snyder, Lopez, Shorey, Rand, & Feldman, 2003). Furthermore, there is evidence that engaged living (Froh, Kashdan et al., 2010), gratitude (Froh, Bono et al., 2010); and hope (Valle et al., 2006) lead to improvements in adolescent well-being over time. Therefore, while there is a strong case that the positive framework used in the current research (i.e., hope, gratitude, strengths use, and engagement) is psychologically beneficial for adolescents, it seems that interventions that aim to *increase or manipulate* these variables do not lead to desired improvements in well-being. The current paper will explore four related explanations as to why this may be the case: (a) adolescents may not have the necessary motivation to implement the positive psychology strategies; (b) school-based recruitment leads to less well-being change than self selection methods; (c) developmental differences between adolescents and adults may moderate the effectiveness of PPIs; and (d) the importance of systemic and environmental influences in achieving improvements in adolescent mental health.

Motivation and Implementing New Behaviours

PPIs require individuals to implement strategies (e.g., counting blessings; using their strengths in new and creative ways) in their every day lives (Froh et al., 2008; Seligman et al., 2005). For example, in the current study, participants were encouraged to use their strengths in new ways; to set and work towards meaningful goals (full life intervention); and take the time to notice life's simple pleasures (simple pleasure intervention). It may be that a key element in the success of PPIs in adolescent samples is

the level of motivation to implement new behaviours, with high motivation being a prerequisite. In adult samples, self concordant motivation (i.e., the fit between activities and individuals' preferences, values, and personality) has been found to moderate the effectiveness of PPIs (Sheldon & Lyubomirsky, 2006). However, one of the key developmental tasks of adolescence is establishing independence from adults and constructing unique ways of interacting with the world (Christie & Viner, 2005). Therefore, it is possible that adolescents will experience low motivation to implement positive psychology strategies and activities suggested by adults.

The impact of implementing new behaviours on the effectiveness of interventions is supported by research by Huppert and Johnson (2010) who compared a school-based mindfulness intervention with a usual care comparison condition in a sample of 14 and 15 year old males (N = 155). No significant, post-intervention differences between conditions were found for mental well-being or mindfulness. However, within the mindfulness group, individual practice was a significant, positive predictor of well-being change. Valuable directions for scientific inquiry are to: (1) explore whether the *application* of positive psychology strategies influence the effectiveness of PPIs; and (2) investigate how to encourage adolescents to use positive psychology strategies thereby potentially leading to meaningful improvements in mental health.

Recruitment Strategy

The majority of PPI studies with adolescents (including the current study) have used school-based recruitment methods (Seligman et al., 2009; Sin & Lyubomirsky, 2009). However, Sin and Lyubomirsky's (2009) meta-analysis found greater effect sizes in PPI studies that use self selection recruitment strategies as opposed to non-self selection

methods such as school-based recruitment. Seligman et al., (2005) proposed that PPIs are primarily aimed at individuals who desire enhanced well-being and are therefore motivated to implement the positive psychology strategies. Alternatively, Froh, Kashdan, Ozimkowski, and Miller (2009) proposed that adolescents recruited via school settings (who have not actively sought out well-being interventions) may not have perceived well-being deficits and therefore may not be particularly motivated to implement the positive psychology strategies. In sum, it is unclear whether age/developmental stage or recruitment strategy is the underlying factor that leads to decreased effectiveness in adolescent focused positive psychology studies. Future research that uses self selection methods (e.g., Internet based research) in adolescent samples, or that measures, and controls for, pre-intervention desire to improve well-being may yield clearer insight into these issues.

Adolescent Development

Developmental differences between adolescents and adults may influence the effectiveness of PPIs. Adolescents' executive functioning capacities are less developed than adults, leading to decreased abilities to regulate attention, emotions, and behaviour (Kuhn, 2009). Adolescents' still developing executive functioning, combined with their tendency for impulsivity and proclivity for emotional intensive situations (Steinberg, 2005) may influence their willingness to invest time and effort in PPIs compared with strategies that may lead to quicker but less sustainable affective consequences such as risk taking and novelty sensation seeking (Kelley, Schochet, & Landry, 2004). Moreover, adolescents' heightened emotional response to positive and negative stimuli (Casey, Jones, & Hare, 2008) may mitigate the impact of PPIs relative to the emotional impact of life events rendering them less powerful.

Overall, more comprehensive understanding of how interactions between adolescents' biological, psychological, and social development influence their ability and willingness to implement positive psychology strategies may lead to more tailored and effective PPIs. It is also important to capitalise on adolescents' developmental strengths when implementing well-being promoting strategies. For example, high neural plasticity during adolescence provides a unique opportunity for individuals to develop capacities that may have powerful and sustainable effects (Dahl, 2004).

The Importance of Systemic and Environmental Influences

Bronfenbrenner's (2005) bio-ecological systems theory posits that a child's development occurs within a context of complex interactions between different aspects of the environment (e.g., family, school, community). According to a systemic approach, positive psychology strategies will only lead to sustained change if they are supported at numerous levels of the adolescent's environment. Moreover, inconsistent messages between school and home settings may lead to reduced intervention effectiveness or even be confusing or harmful for adolescents.

Aligned with bio-ecological systems theory (Bronfenbrenner, 2005), a whole school approach to mental health involves using multiple strategies to enhance students' well-being (World Health Organization, 1994). More specifically, influential adults in the students' lives (e.g., school staff, families, community members) work together to create an environment that supports mental health (Weare, 2000). This approach recognises that learning does not occur in isolation and emphasises the impact of school climate, connectedness, and relationships on adolescent well-being (Loukas, Suzuki, & Horton, 2006). However, while numerous schools are using whole-school approaches to positive

psychology (e.g., Geelong Grammar School, 2010) this approach is challenging to evaluate via RCTs as it requires manipulation of naturally occurring situations. Developing appropriate strategies for testing the utility of whole school approaches to positive psychology requires future attention and consideration of both efficacy and ecological validity. A concurrent aim is to test whether educating parents/carers in positive psychology facilitates increased PPI effectiveness in adolescent samples.

Limitations, Strengths, and Directions for Future Research

A limitation of the current study was that the sample size was not large enough to explore individual difference factors that may have predicted within-condition well-being change (Cohen, 1992). More specifically, while the current study did not yield clear support for any one condition, it is possible that some participants experienced well-being benefits. Froh, Kashdan et al., (2009) found that positive affect moderated the effectiveness of a gratitude intervention, with adolescents with low positive affectivity reporting increased well-being. This finding supports the notion that motivation plays an important role in intervention effectiveness as it is plausible that individuals with low positive affect are more motivated to implement positive psychology strategies. A priority for future research is to explore individual difference factors (personality, age, gender) that influence the effectiveness of PPIs potentially enabling the targeting of interventions to specific subgroups of the population.

The lack of significant group differences in the current study may indicate that exposure to the PPIs was limited to one day (plus voluntary practice activities). Future research should examine whether longer interventions (or interventions delivered over subsequent weeks thereby giving participants more time to process information) have a

more powerful and sustainable impact on adolescent mental health. However, it is noteworthy that effects in adults have been found in interventions with much less exposure to positive psychology skills and training. For example, adults who received Internet instructions to count their blessings or use their strengths in new ways for one week reported significant improvements in depression and well-being six months later (Seligman et al., 2005).

Twenty percent of participants in the current study were absent on the health day and did not take part in the interventions. This rate is substantially higher than the usual rates of school inattendance and may indicate that some students did not value the opportunity to learn mental health and well-being promotion strategies. From one perspective, it is important to respect adolescents' choice whether or not to take part in research and/or PPIs. However, alternatively, often adolescents who are most in need of mental health services are the least likely to seek help (Rickwood, Deane, Wilson, & Ciarrochi, 2005). The disengagement of some students in the current study provides further support for the creation of an overall school culture that nurtures and protects well-being.

The current study progresses existing research in important ways. To date, the majority of research in PPIs has involved self-selected adult samples (Sin & Lyubomirsky, 2009). In addition to exploring PPIs in an under-researched subgroup of the population (i.e., adolescents) this research used a RCT design thereby enabling an exploration of causal pathways. Furthermore, training school staff to deliver the PPIs (compared with mental health professionals or researchers) gives important insight into the impact of the concepts and activities in real life conditions (Flay et al., 2005; Harnett & Dadds, 2004). In addition, using school resources is an inexpensive approach that increases sustainability and

provides insight into the possibility of disseminating PPIs to other schools (Flay et al., 2005).

Summary and Conclusions

This study aimed to evaluate the effectiveness of PPIs in enhancing youth mental health. Participants allocated to the full life, simple pleasures, and health day conditions reported reduced anxiety and stress post intervention. However, contrary to expectations, there was no evidence that the PPIs were effective in enhancing well-being. Similarly, there was no evidence that the holistic full life intervention was more effective than the single component simple pleasures intervention. One possible explanation for this is that motivation and the implementation of new behaviours are key factors in the success of PPIs in adolescent populations (future research could confirm this). An alternative explanation is that PPIs will yield more benefits if they are supported at various levels of adolescents' environments (including school and family contexts). Overall, it is recommended that future research explore the individual, developmental, and contextual factors that support the effectiveness of PPIs in adolescent samples. This research underscores that research on PPIs and adolescent mental health is in the early stages and more work is needed in order to understand the underlying mechanisms that facilitate improvements in adolescent well-being.

Table 1

Key Components of the Full Life and Simple Pleasures Intervention

Session	Example activities and content
<i>Full life intervention</i>	
Introduction	Introduction to positive psychology and discussion of the importance of mental health. Exploration of the importance of negative emotions and avenues for help seeking.
Strengths	General introduction to strengths and exploration of participants' individual strengths. Brainstorming of ways to use strengths more often in life.
Orientations to happiness	Exploration of sources of pleasure, engagement, and meaning in life. Introduction to simple savouring techniques.
Positive relationships	Exploration of gratitude and kindness as ways of nurturing positive relationships. Exploration of life's blessings.
Hope	Completion of goal setting activities based on Snyder's (2002) hope theory. Creation of collages that depict future possibilities.
Example practice activities	Photographing daily blessings for one week. Use of strengths in new and creative ways. Undertaking random act of kindness.
<i>Simple pleasures intervention</i>	
Introduction and taste	Introduction and exploration of life's simple pleasures. Exploration of the importance of negative emotions and avenues for help seeking. Completion of a savouring taste activity.
Sight	Exploration of the importance of sight and undertaking simple tasks (e.g., making clay animals) while blindfolded.
Sound	Examination of the power of music and sound in evoking emotions. Selection of favourite songs and overview of strategies for savouring sound.
Touch	Exploration of the importance of touch and the role of personal contact (e.g., hugs) in happiness.

Smell and conclusions	Discussion of the power of smell. Activities based on identifying different smells. Creation of simple pleasures collages.
Example practice activities	Use of creative methods (e.g., photography, sculpture) to capture powerful sights. Focusing on the five senses of sight, sound, smell, touch, and taste while going for a walk.

Table 2

Means and Standard Deviations as a Function of Group and Pre-intervention (1), Post-intervention (2), and Two Month Follow-up (3) Time Points

	FLI	SPI	HD
	n = 25	n = 28	n = 19
SSLS1	28.68(5.43)	28.18(6.26)	31.58(6.61)
SSLS2	29.64(7.15)	29.79(4.51)	32.11(5.59)
SSLS3	29.32(6.88)	30.07(5.18)	30.52(8.66)
WE1	23.23(4.57)	21.54(4.98)	26.68(4.63)
WE2	23.92(5.49)	23.32(4.88)	26.21(4.71)
WE3	23.88(6.61)	23.42(5.12)	25.47(6.68)
DEP1	5.20(4.43)	5.25(4.43)	3.16(4.23)
DEP2	5.24(4.33)	4.61(3.76)	2.53(2.50)
DEP3	5.64 (4.96)	5.43(5.19)	3.63(4.80)
ANX1	4.96(4.35)	4.50(3.85)	3.94(4.82)
ANX2	4.16(3.99)	3.86(3.47)	3.52(4.55)
ANX3	4.68(4.43)	4.21(4.39)	3.21(4.39)
STR1	6.24(4.80)	7.18(3.80)	5.05(3.49)
STR2	5.60(3.52)	6.32(2.94)	4.21(3.24)
STR3	7.36(5.37)	5.93(4.32)	4.68(5.06)

Note. FLI = full life intervention; SPI = simple pleasures intervention; HD = usual health day. SSLS = Student's Satisfaction with Life Scale; WE = Short Warwick-Edinburgh Mental Well-being Scale; DEP = DASS depression subscale; ANX = DASS anxiety subscale; STR = DASS stress subscale.

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Chapter 10: Integrated Discussion, Summary, and Conclusions

This research provides preliminary support for the application of positive psychology with adolescents. Combined with extant research (e.g., Froh, Yurkewicz, & Kashdan, 2009; Valle, Huebner, & Suldo, 2006) the high associations between positive psychology variables and adolescent mental health found in the predictors of mental health study (i.e., study one) suggest that positive psychology does have an important role to play in adolescent mental health. Furthermore, adolescents (i.e., panel participants) and mental health and educational professionals provided positive feedback on the full life and simple pleasure interventions suggesting that the PPIs had good face validity. However, the RCT did not provide convincing evidence that the full life or simple pleasures interventions were effective in enhancing well-being or decreasing symptoms of anxiety, stress, or depression compared to the usual care comparison condition. This suggests that a more in-depth understanding is required in order to understand how to facilitate meaningful increases in adolescent well-being.

The aim of this integrated discussion is to explore how this research makes a valuable contribution to existing literature. Theoretical and practical implications are summarised in six priorities for future research and application: (a) the need for increased recognition of differences between adult and adolescents populations; (b) the role of individual difference factors in PPI effectiveness; (c) the importance of motivation and the application of positive psychology strategies in well-being change; (d) the need for holistic and systemic approaches that target multiple environments in adolescents' lives; and (e) the value of consultation and participation methods in mental health initiatives. In addition,

recommendations for future research are made and limitations, challenges, and strengths of the research are discussed.

Implications and Future Directions

Adolescence does not Equal Adulthood

This research underscores that adolescence is a unique developmental period and findings from adult samples should not be extrapolated to adolescent populations without due consideration. Moreover, future research is needed to explore how adolescents' biological, emotional, and psychological maturation influences their engagement with well-being concepts. For example, adolescents' executive functioning is less developed than adults leading to decreased capacity to regulate behaviour and control attention (Kuhn, 2009). Adolescents' less developed cognitive resources may decrease their ability and willingness to devote attention and effort towards well-being promoting strategies.

Adolescence as a life stage is characterised by the exploration of values and morals, the establishment of a sense of self, and the formation of a unique understanding of the world (Côté, 2004; Eisenberg et al., 2004). The notion that adolescence is a time of questioning and exploration is supported by a study of meaning across the adult life course whereby emerging adults (ages 18 to 20) were more likely to report searching for meaning whereas older participants were more likely to report the presence of meaning (Steger, Oishi, & Kashdan, 2009). Overall, longitudinal research is needed to explore the developmental trajectories of positive psychology variables (e.g., meaning, gratitude, hope, and strengths) and the antecedents of flourishing over the life span.

Individual Difference Factors and Targeting PPIs

A key message throughout this thesis is that there is not a one-size fits all approach to well-being. The importance of treating young people like unique individuals was identified as a priority by adolescents in both consultation studies. While the small sample sizes in the current research limited the possibility of exploring the impact of individual differences variables such as personality or gender, such factors have been found to influence the effectiveness of PPIs in other studies. For example, interventions focused on cultivating gratitude have been found to be more effective with adolescents with low positive affect than adolescents with high positive affect (Froh, Kashdan et al., 2009). Similarly, Huppert and Johnson (2010) found that (in addition to mindfulness practice) the personality traits of agreeableness, emotional stability, and openness to experience were significant predictors of well-being change as a result of mindfulness interventions.

Vella-Brodrick (in press) proposes three categories that influence the effectiveness of PPIs and which warrant further exploration: (a) participant characteristics such as age, personality, motivation, and mental health; (b) the nature of the intervention such as length, frequency, and delivery mode; and (c) contextual factors such as the time available and support from others. Further research into these categories will lead to a more nuanced understanding of factors that affect the success of PPIs thereby enabling the targeting of interventions to maximise effectiveness (Schueller, 2010).

Motivation and Behaviour Change

A valuable avenue for future research is the role of motivation in the success of well-being promoting strategies. Underlying motivation is especially important when working with adolescents who are undertaking the developmental tasks of establishing

independence and autonomy and may therefore be resistant to strategies recommended by adults (Steinberg & Morris, 2001). The approach used in the full life intervention in the current research was to enable adolescents to choose the positive psychology activities that appealed to them (i.e., that they had the highest *fit* with) (Lyubomirsky, 2007). It was hypothesised that this flexible approach would decrease the probability that adolescents would perceive the PPIs as prescriptive or coercive and therefore would experience increased autonomy and volition to engage with the activities (Ryan & Deci, 2000).

Alternatively, individuals' preferred positive psychology activities may not have coincided with their psychological needs (Giannopoulos & Vella-Brodrick, in press). In a RCT of 218 self selected adults, Giannopoulos and Vella-Brodrick found that participants who highly endorsed one orientation to happiness (i.e., pleasure, engagement, *or* meaning) but who were allocated to interventions that focused on cultivating one of the remaining two orientations, reported significantly more well-being change than participants allocated to a non-intervention control condition. Perhaps encouraging adolescents to try activities that *do not* appeal to them, or activities that are not their top preferences, will have a more powerful impact on their well-being as it will correspond to strategies that they are not already naturally using. The tension between activities individuals are attracted to (and therefore may find motivating) and activities that fulfil their unrealised psychological needs requires further exploration (Vella-Brodrick, in press).

An Integrated and Systemic Approach

A critique of positive psychology is that it focuses on individual assets with less emphasis on community or environmental influence (Held, 2004). One of the proposed aims of positive psychology is the understanding of positive institutions (Seligman &

Csikszentmihalyi, 2000). However, thus far, this has been an underutilised strategy compared with other objectives such as the exploration of positive emotions and character strengths (Gable & Haidt, 2005). For example, the current study focused on individual assets and skills (e.g., strengths, hope, gratitude) and did not investigate external assets such as school climate, family relationships, community, and external opportunities (Scales, Benson, Roehlkepartain, Sesma, & van Dulmen, 2006). It is important to note that adolescents' development occurs within a complex interaction of systems that are largely influenced by adults (e.g., parents, teachers) (Bronfenbrenner, 2005). Therefore, in addition to a focus on individual assets such as strengths or hope, PPIs should focus on cultivating positive families and school environments thereby ensuring that well-being promoting messages are reinforced across important life domains.

An important issue identified during the literature review was that a high focus on individual positive psychology assets may lead to young people taking too much responsibility for their well-being potentially leading to feelings of guilt if they can not consistently achieve positive states (Held, 2004). Professionals working with adolescents in topics concerning positive psychology should: (a) avoid propagating the notion that young people are entirely responsible for their well-being (without a similar focus on systemic, family, and environmental influences); and (b) communicate that negative emotions and experiences are a normal and valid part of life and development.

Relationships with Other Frameworks

A priority for future theoretical and empirical exploration is to work towards an increased understanding of how positive psychology fits with other frameworks including social and emotional learning (Greenberg et al., 2003); cognitive behavioural therapy

(Horowitz & Garber, 2006); positive youth development (Larson, 2000); prevention science (Weissberg, Kumpfer, & Seligman, 2003); and coaching (Green, Grant, & Rynsaardt, 2007). For example, social and emotional learning is defined as an overarching framework aimed at building children and adolescents' abilities to manage emotions and interpersonal situations effectively (Greenberg et al., 2003). However, the conceptual and practical consistencies and differences between positive psychology and social and emotional learning are poorly demarcated. Similarly, future research could investigate similarities and differences between PPIs that aim to enhance mental health and preventative programs that use cognitive behavioural frameworks such as the Penn Resiliency and FRIENDs programs (Gillham et al., 2007; Lowry-Webster, Barrett, & Dadds, 2001; Neil & Christensen, 2007). In practical terms, the large number of programs that exist can create difficulty for school staff in deciding between approaches. Future literature and research should seek to decrease ambiguity and to clarify the specific goals and assumptions of different frameworks to avoid contributing to this confusion (Weissberg et al., 2003). Furthermore, important goals for future research are to: (a) explore whether efficacious preventative programs are successful in *promoting* adolescent mental health and flourishing; and (b) explore how strategies for preventing mental health problems and those aimed at enhancing well-being can be integrated to create holistic approaches that help young people to flourish.

Consultation and Participation as Powerful Strategies

The current research uses a unique approach by combining consultation approaches with positive psychology research. In addition to increasing the youth-appropriateness of interventions, there is evidence that involving young people in consultation, and expressing interest in their ideas, is a well-being promoting strategy in itself (Oliver et al., 2006).

While not the focus of the current research, a credible goal is to explore the effectiveness and feasibility of involving adolescents in the delivery of mental health programs to other young people. The success of the youth participation models used by Reach Out (Burns, Morey, Lagelée, Mackenzie, & Nicholas, 2007) and the Reach Foundation (The Reach Foundation, 2010) is testament to the value of such approaches.

While youth consultation is an increasingly popular strategy, the tenants of consultation are applicable to a range of sub-groups of the population. For example, consultation could be used to tailor PPIs to specifically cater for individuals of various age ranges (e.g., the elderly) or specific demographics (e.g., males, unemployed persons). Similarly, a critique of positive psychology is that most of the activities and strategies have been developed in Western countries and explorations of cross cultural utility are in their infancy. Utilising consultation procedures may be an effective strategy of ensuring PPIs have cross cultural utility and feasibility.

Limitations, Challenges, and Strengths

A general limitation of the quantitative aspects of this research was limited sample size. Recruitment challenges in the predictors of mental health study led to sample of 114 participants. While adequate for standard multiple regressions, this sample did not have sufficient power to conduct more intricate analyses such as hierarchical regressions in order to explore or control for individual difference factors such as demographic or personality variables (Cohen, 1992). Similarly, the sample of 90 adolescents in the RCT did not allow for any reliable deeper analysis of within-group predictors of well-being change.

In addition to sample size, there is the potential of recruitment biases that limit the generalisability of the results. In particular, the predictors of mental health study, the phone

interviews, and the panel study used self selection recruitment methods. While the school-based RCT was designed to be universal (and informed participant and parental consent was obtained for 72.0% of students) several research studies have found that active parental consent procedures, as used in the RCT study, result in under representation of at-risk children (Esbensen et al., 1999). Further research exploring the effectiveness of PPIs in diverse samples is warranted.

Developing an appropriate active placebo/comparison control condition was another substantial challenge. Initial efforts to develop or find an inert comparison condition proved difficult. Furthermore, while a strong theoretical case was made for the development of the simple pleasures intervention, further exploration revealed that this intervention may have been more powerful than first anticipated. For example, the simple pleasures intervention was designed to be fun, which may have activated Fredrickson's (2001) broaden-and-build hypothesis (i.e., cultivated positive emotions leading to increased resources over time). Similarly, professionals who reviewed the simple pleasures intervention felt that focusing on the five senses encouraged mindfulness which is a powerful well-being promotion strategy (Huppert & Johnson, 2010). Indeed, participants allocated to all three conditions reported reduced anxiety and stress post-intervention which suggests that the simple pleasures intervention had some impact on mental health. Perhaps in the future, research could focus on comparing two different approaches in bigger samples (e.g., a coaching intervention with a positive psychology intervention) in order to explore: (a) which interventions are most effective; and (b) which intervention works for whom; potentially enabling the targeting of interventions to maximise impact.

A challenge in the current research was conducting a RCT in an educational setting. Schools are complex organisations with complex (and often competing) demands. RCTs pose unique challenges in schools as assigning students to conditions can disrupt classes and create perceived inequity for students and their families. The fact that two schools dropped out of the RCT due to difficulties with the research design highlights the complexities of conducting school-based intervention studies. Similarly, in the current study, staff turnover posed a challenge as a staff member trained to deliver the simple pleasures intervention left the school just prior to the execution of the RCT. Overall this research emphasises some of the potential barriers of conducting rigorous research in school settings (Greenberg, 2004). Furthermore, while testing the effectiveness of the PPIs in a one day workshop suited the school's requirements and timetabling factors, it is possible that delivering the same content over a series of weeks would have a more powerful impact on adolescents' mental health. Therefore, a useful direction for future research would be to test whether an extended version of the holistic full life intervention would lead to significant improvements in well-being.

Despite numerous challenges, this research contributes to the existing literature in several important ways. Traditional research in adolescence has predominately focused on problematic behaviours (e.g., risk taking) and relationships (e.g., peer victimisation, difficult child-parent relationships) (Steinberg & Morris, 2001). The danger of a high focus on adolescent dysfunction is the potential that adolescence will be viewed as a period of normative difficulty and disturbance. In this regard, positive psychology can make a valuable contribution by redirecting focus to the enhancement of well-being and the growth of competence as opposed to the avoidance of distress. Similarly, as the field of positive

psychology progresses, increased understanding of the how different age groups interact with well-being variables will lead to a more nuanced and sophisticated understanding of how mental health can be promoted and nurtured at various life stages.

Existing prevention research in Australia is criticised for falling into two categories: (a) RCTs in strictly controlled conditions that yield little insight into the effectiveness of interventions in real life conditions; and (b) community based programs where measures of impact are limited to pre to post well-being change (Andrews & Wilkinson, 2002). By including an active comparison condition and training school staff to deliver the PPIs, this research leads to important insight into the effectiveness of applying positive psychology concepts in real life settings. Furthermore, dovetailing youth consultation methods with positive psychology concepts is a unique approach to the challenges inherent in engaging adolescents in mental health programs.

Summary and Conclusions

High rates of adolescent mental health problems combined with low rates of flourishing emphasise the importance of innovative approaches to adolescent mental health. The need for innovation, combined with the recognition that mental health consists of more than the absence of mental illness (Keyes, 2005), has seen positive psychology frameworks gain attention as valid avenues for research and practice. Nurturing adolescents' strengths and promoting well-being can equip young people to deal proactively and successfully in the present and in the future. Furthermore, adolescents who are thriving and flourishing are less likely to engage with problematic behaviours than adolescents who report moderate or poor mental health (Waterman, 2005). Positive psychology approaches that focus on enhancing strengths and cultivating well-being may be less confronting to young people

than efforts to fix problems such as mental dysfunction or problematic behaviour.

Therefore, it is believed that positive psychology has an important role to play in adolescent mental health.

Despite high interest in the area, research in PPIs and adolescent mental health is in the formative stages. To ensure that the application of positive psychology frameworks does not surpass the available empirical evidence, it is essential that the exploration of methods of promoting adolescent mental health continues. It is believed that the current thesis makes a valuable contribution to the field by: (a) reviewing literature on positive psychology and adolescent well-being; (b) comparing the relative contributions of positive psychology variables to both positive and negative indicators of mental health; (c) using youth consultation methods to explore how to make PPIs appealing and engaging for adolescents; and (d) testing two PPIs via a RCT. Future research is needed now to explore individual and systemic approaches to motivating adolescents to implement the positive psychology strategies in their lives hopefully leading to meaningful and sustainable mental health benefits.

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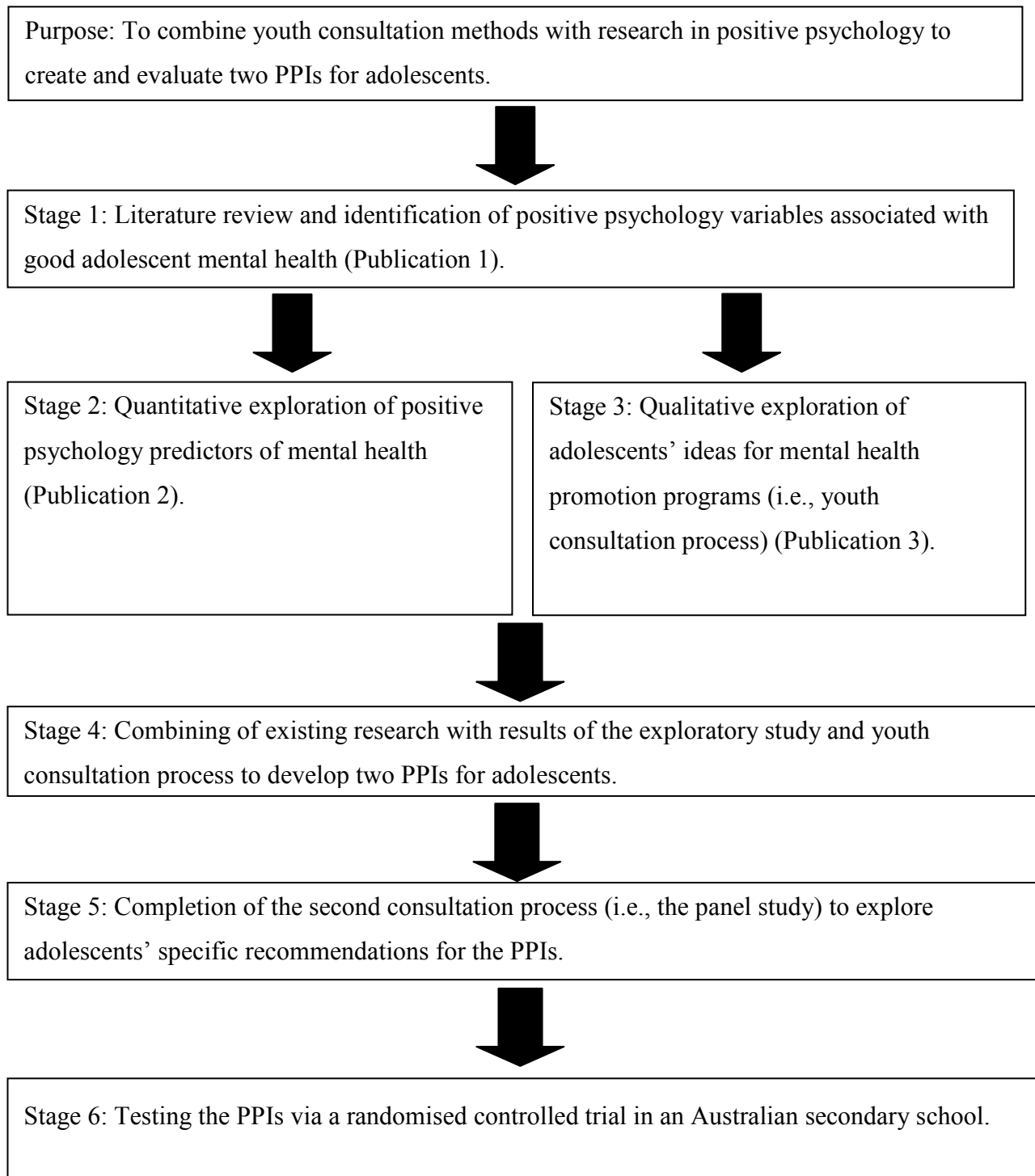
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Appendix A: Research Flow Chart



Appendix B: Ethics Approval



MONASH University

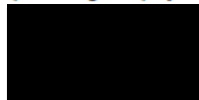
Standing Committee on Ethics in Research Involving Humans (SCERH)
Research Office

Human Ethics Certificate of Approval

Date: 28 April 2008
Project Number: CF08/0540 - 2008000255
Project Title: Adolescent well-being: Insights from those who are happy and flourishing
Chief Investigator: Dr Dianne Vella-Brodrick
Approved: From: 28 April 2008 to 28 April 2013

Terms of approval

1. The Chief investigator is responsible for ensuring that permission letters are obtained and a copy forwarded to SCERH before any data collection can occur at the specified organisation. **Failure to provide permission letters to SCERH before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research.**
2. Approval is only valid whilst you hold a position at Monash University.
3. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by SCERH.
4. You should notify SCERH immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash University letterhead and the Monash University complaints clause must contain your project number.
6. **Amendments to the approved project:** Requires the submission of a Request for Amendment form to SCERH and must not begin without written approval from SCERH. Substantial variations may require a new application.
7. **Future correspondence:** Please quote the project number and project title above in any further correspondence.
8. **Annual reports:** Continued approval of this project is dependent on the submission of an Annual Report. This is determined by the date of your letter of approval.
9. **Final report:** A Final Report should be provided at the conclusion of the project. SCERH should be notified if the project is discontinued before the expected date of completion.
10. **Monitoring:** Projects may be subject to an audit or any other form of monitoring by SCERH at any time.
11. **Retention and storage of data:** The Chief Investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.



Professor Ben Canny
Chair, SCERH

Cc: Miss Jacolyn Norrish

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Email scerh@adm.monash.edu.au www.monash.edu/research/ethics/human/index/html
ABN 12 377 614 012 CRICOS Provider #00008C



Human Ethics Certificate of Approval

Date: 30 July 2009
Project Number: CF09/1207 - 2009000604
Project Title: The efficacy of an adolescent mental health promotion workshop
Chief Investigator: Dr Dianne Vella-Brodrick
Approved: From: 30 July 2009 To: 30 July 2014

Terms of approval

1. The Chief investigator is responsible for ensuring that permission letters are obtained, if relevant, and a copy forwarded to MUHREC before any data collection can occur at the specified organisation. **Failure to provide permission letters to MUHREC before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research.**
2. Approval is only valid whilst you hold a position at Monash University.
3. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by SCERH.
4. You should notify MUHREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash University letterhead and the Monash University complaints clause must contain your project number.
6. **Amendments to the approved project (including changes in personnel):** Requires the submission of a Request for Amendment form to MUHREC and must not begin without written approval from SCERH. Substantial variations may require a new application.
7. **Future correspondence:** Please quote the project number and project title above in any further correspondence.
8. **Annual reports:** Continued approval of this project is dependent on the submission of an Annual Report. This is determined by the date of your letter of approval.
9. **Final report:** A Final Report should be provided at the conclusion of the project. MUHREC should be notified if the project is discontinued before the expected date of completion.
10. **Monitoring:** Projects may be subject to an audit or any other form of monitoring by MUHREC at any time.
11. **Retention and storage of data:** The Chief Investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.



Professor Ben Canny
Chair, SCERH

cc: Ms Jacolyn Norrish

Appendix C: Explanatory Statements and Consent Forms

Study 1: Participant explanatory statement (quantitative and qualitative stages)

This information sheet is for you to keep.

My name is Jacolyn Norrish and as part of a PhD (Psychology) my supervisor Dr Dianne Vella-Brodrick and I, are conducting research into adolescent well-being and the factors that promote mental health. We are both from the School of Psychology and Psychiatry at Monash University.

The purpose of this study is to identify factors associated with adolescent well-being which may be taught to adolescents who wish to improve their well-being and mental health. Information gained in this study will be used to develop a list of qualities that are present in adolescents with high well-being. This information will be used to develop a program aiming to increase adolescent well-being and mental health. We would like to invite adolescents between the ages of 14 – 17 to participate in this study.

There are two stages to this research.

The first stage

The first stage involves filling out some questionnaires about your well-being, mental health, personality, relationships, events you have experienced, your strengths, approaches to happiness, and your goals. There will also be some general questions about your age, gender, and cultural background and some open-ended questions about your happiness and well-being.

This stage of the study will take about an hour and can be done in your own time. Please be aware that your responses can only be accessed by us, the researchers.

Some of the questionnaires ask about your experience of depression and anxiety. While some responses to these measures could indicate that you are at-risk of problems with depression or anxiety, by itself it is not enough information to make an accurate assessment about your mental health. We will not inform you or your parents/guardians about your results.

If you or your parents have any concerns about depression or anxiety, please contact a free counselling service, such as KidsHelpLine on 1800 55 1800 or Lifeline on 13 11 14. You can also contact the Australian Psychological Society on 1800 333 497 for a referral to a psychologist. Alternatively, you can refer to the following websites for mental health information and details about the various locations of community health centres and services:

www.health.vic.gov.au/communityhealth/service_provider/community_health_directory.htm

www.serviceseeker.com.au
www.reachout.com.au

The second stage

For the second stage of this study, a selection of participants will be invited to take part in phone interviews. The purpose of the phone interviews is to gain further insight into how adolescents can improve well-being and to gain their input into the design of the mental health program.

If you are selected to participate in the phone interviews, and your consent has been obtained, we will call you to invite you to participate in this stage of the study.

Participating in the phone interviews will involve answering some questions about the design and delivery of mental health programs. Participation in the phone interviews is voluntary, and you are able to stop at any time. Phone interviews will be audio recorded.

Information relevant to both stages of the study

If you do not wish to take part in a phone interview you are still welcome to take part in the first stage of this study.

In accordance with Monash University regulations, only the researchers will have access to the original data and the questionnaires and audio recordings will be stored in a private location for at least 5 years after which they will be shredded.

Overall findings of this study will be published in a research paper, a conference paper and/or an oral presentation. However, no findings or details that will identify individual participants will be published.

Individual scores on the questionnaires will not be available, however, if you have any queries or would like to be informed of the overall research findings please contact Dr Vella-Brodrick on 03 9903 2542 or via email at dianne.vella-brodrick@monash.edu or myself via email at jacolyn.norrish@monash.edu.

Please discuss your participation in this research with a parent/guardian. Please let them know that they are free to contact us if they have any questions or would like to receive an explanatory statement about the study.

If you would like a letter from the researchers stipulating that you have taken part in this research project, and therefore have made a valuable contribution to mental health research, please email us and one will be forwarded to you. Similarly, if you would like to go into the draw to win some movie tickets, please email us with your contact details.

Please also pass the details of this study or our contact details onto any one else you know who may be interested in participating.

Should you have any complaint concerning the manner in which this research is conducted, please do not hesitate to contact the Monash University Human Research Ethics Committee at the following address:

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a complaint concerning the manner in which this research < CF08/0540 2008000255 > is being conducted, please contact:
Dianne Vella-Brodrick Phone: +6139903 2542 Fax: + 6139903 2501 email: Dianne.Vella-Brodrick@monash.edu	Human Ethics Officer Monash University Human Research Ethics Committee Building 3e Room 111 Research Office Monash University VIC 3800 Tel: +61399052052 Fax: +61399051420 Email: scerh@adm.monash.edu.au

Thank you,

Jacolyn Norrish

Appendix C: Explanatory Statements and Consent Forms

Study 1: Participant consent forms (quantitative and qualitative stages)

NOTE: Signed written consent will remain with the Monash University researchers for their records.

I agree to take part in the Monash University research project specified above. I have read and understood the Explanatory Statement.

Stage 1

I understand that agreeing to take part in Stage 1 means that I am willing to:

1. Answer some questions about myself, such as my age, gender, and cultural background.
2. Complete some questionnaires that ask about my well-being, mental health, experiences, personality, relationships, strengths, approaches to happiness, and goals.

I understand that some of the questionnaires used in this study involve questions about depression and anxiety. I am aware that these measures do not provide enough information to diagnose mental conditions, and I understand that the researchers will not contact me or my parents/guardians in the case that scores indicate that I may be depressed or anxious.

I understand that any data that the researchers extract from this research will not contain names or identifying characteristics.

I understand that data will be securely stored and accessible only to the researchers. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

I consent to participate in Stage 1 of the study:

☐

Stage 2:

If selected, I would like to participant in phone interviews.
I consent to the phone interviews being recorded.

☐

Appendix C: Explanatory Statements and Consent Forms

Study 2: Participant explanatory statements (panel study).

This information sheet is for you to keep.

My name is Jacolyn Norrish and, as part of a PhD, I, along with my supervisor Dr Dianne Vella-Brodrick, am conducting research in the field of adolescent mental health. We are both from the School of Psychology and Psychiatry at Monash University.

We would like to invite adolescents between the ages of 14 – 17 to help us with our research by taking part in an advisory panel. The aim of the panel is to gather young people's input and advice on the format and design of a mental health promotion workshop.

What does it involve?

Taking part in the advisory panel involves providing your suggestions and input on the design of a mental health promotion workshop. This will take approximately 20-30 minutes and can be completed online. An example of a question could be:

- Do you have any advice on how to keep adolescents engaged and interested in the mental health program?

You can respond to the questions with as little or as much detail as you would like.

If you decide to proceed

Being in this study is voluntary and you are under no obligation to take part. If you decide to proceed with this study, please contact the researchers. You will be asked to fill out a consent form to indicate that you consent to taking part in this study.

Some important details

In accordance with Monash University regulations, only the researchers will have access to the original data and the questionnaires will be stored in a private location for at least 5 years after which they will be shredded.

Overall findings of this study may be published in a research paper, a conference paper and/or an oral presentation. However, no findings or details that will identify individual participants will be published. If you have any queries or would like to be informed of the overall research findings please contact Dr Vella-Brodrick on 03 9903 2542 or via email at dianne.vella-brodrick@monash.edu or myself via email at jacolyn.norrish@monash.edu.

Some important considerations

Participation in this study is voluntary and you are free to withdraw at any time. However, please note that any information that you have already provided can not be deleted. As the focus of this project is enhancing happiness and mental health, it is believed that taking part in this study does not pose significant risks to participants. However, if taking part in this study causes you any distress, or if you or your parents/guardians have any concerns about depression or anxiety, please contact one of the following services:

Kids Help Line
1800 55 1800
www.kidshelp.com.au

Lifeline
13 11 14
www.lifeline.org.au

The Australian Psychological Society
(referral line)
1800 333 497
www.psychology.org.au

Victorian Government Community Health Directory
www.health.vic.gov.au/communityhealth/service_provider/community_health_directory.htm

Infoxchange Service Seeker
www.serviceseeker.com.au/

Reach Out
www.reachout.com.au

Contact information

Please also pass the details of this study or our contact details on to anyone else you know who may be interested in participating.

Should you have any complaint concerning the manner in which this research is conducted, please do not hesitate to contact the Monash University Human Research Ethics Committee at the following address:

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a complaint concerning the manner in which this is being conducted, please contact:
Dianne Vella-Brodrick Phone: +61399032542 Fax: +61399032501 Email: Dianne.Vella-Brodrick@monash.edu	Human Ethics Officer Monash University Human Research Ethics Committee Building 3e Room 111 Research Office Monash University VIC 3800 Tel: +61399052052 Fax: +61399051420 Email: scerh@adm.monash.edu.au

Thank you,

Jacolyn Norrish

Appendix C: Explanatory Statements and Consent Forms

Study 2: Participant consent forms (panel study).

Please complete the following to indicate that you consent to taking part in the study.

I agree to take part in the above Monash University research project. The project has been explained to me, and I have read the Explanatory Statement, which I keep for my records.

I understand that agreeing to take part means that I am willing to:

- Provide my ideas about the format and design of a mental health promotion workshop.

I am aware that my participation is voluntary and I am free to withdraw at any time, but that information I have already provided can not be deleted.

I consent to taking part in this study: ☐

Appendix C: Explanatory Statements and Consent Forms

Study 3: Participant explanatory statements (RCT).

This information sheet is for you to keep.

My name is Jacolyn Norrish and, as part of a PhD, I (along with my supervisor Dr Dianne Vella-Brodrick) am conducting research in the field of adolescent mental health. We are both from the School of Psychology and Psychiatry at Monash University.

About the study

The aim of the study is to investigate the effectiveness of workshops designed to promote adolescent well-being and mental health.

What is involved?

If you decide to take part in this study you will be randomly allocated to one of three groups.

Group A: Being allocated to Group A involves taking part in a day-long workshop that explores your strengths and things that make life pleasurable, engaging, and meaningful. This workshop will be part of the school's health day and will take place on the 20/4/10. There will also be some simple activities to be completed at home.

Group B: Being allocated to Group B involves taking part in a day-long workshop that explores the simple pleasures in life. This workshop will also be part of the school's health day and will take place on the 20/4/10. There will also be some simple activities to be completed at home.

Group C: Participants allocated to Group C will take part in general health day that includes information on health topics such as healthy relationships, sexual health, and partying safely.

Assessments and questionnaires

All participants will be required to fill out questionnaires at three different time points (over the course of approximately 2 months). These questionnaires ask about your mental health and well-being. There will also be some general questions about your age, gender, and cultural background. Filling out the questionnaires takes approximately 30 minutes. Please note that you do not have to answer questions you are not comfortable with.

Some important information

Some of the questionnaires ask about your experience of depression and anxiety. While some responses to these measures could indicate that you are at risk of problems with depression or anxiety, by itself it is not enough information to make an accurate assessment about your mental health. Therefore, we will not inform you or your parents/guardians about your results. However, if at any stage of this study we are concerned about your welfare we will contact your parents/guardians immediately.

Participation in this study is voluntary and you are free to withdraw at any time. However, please note that any information you have already provided can not be deleted.

As the focus of this project is enhancing happiness and mental health, it is believed that taking part in this study does not pose significant risks to participants. However, if taking part in this study causes you any distress, or if you or your parents/guardians have any mental health concerns, we recommend the following services:

Kids Help Line	1800 55 1800 www.kidshelp.com.au
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Lifeline	13 11 14 www.lifeline.org.au
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The Australian Psychological Society (referral line)	1800 333 497 www.psychology.org.au
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Victorian Government Community Health Directory
www.health.vic.gov.au/communityhealth/service_provider/community_health_directory.htm

Infoxchange Service Seeker www.serviceseeker.com.au	Reach Out www.reachout.com.au
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Some other important details

In accordance with Monash University regulations, only the researchers will have access to the original data and the questionnaires will be stored in a private location for at least 5 years after which they will be shredded.

Overall findings of this study may be published in a research paper, a conference paper and/or an oral presentation. However, no findings or details that identify individual participants will be published. Individual scores on the questionnaires will not be available, however, if you have any queries or would like to be informed of the overall research findings please contact Dr Vella-Brodrick on 03 9903 2542 or via email at dianne.vella-brodrick@monash.edu or myself via email at jacolyn.norrish@monash.edu.

If you decide to proceed with this study, please fill out the consent form. A parent/guardian will be also asked to give their consent.

Contact information

Should you have any complaint concerning the manner in which this research is conducted please contact the Monash University Human Research Ethics Committee at the following address:

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a complaint concerning the manner in which this is being conducted, please contact:
Dianne Vella-Brodrick Phone: +61399032542 Fax: + 61399032501 email: Dianne.Vella-Brodrick@monash.edu	Human Ethics Officer Monash University Human Research Ethics Committee Project Number: CF09/1207 - 2009000604 Building 3e Room 111 Research Office Monash University VIC 3800 Tel: +61399052052 Fax: +61399051420 Email: scerh@adm.monash.edu.au

Thank you,

Jacolyn Norrish

Appendix C: Explanatory Statements and Consent Forms

Study 3: Parent/carer explanatory statements (RCT).

This information sheet is for you to keep.

Hi. My name is Jacolyn Norrish and, as part of my PhD, I, along with my supervisor Dr Dianne Vella-Brodrick, am conducting research in the field of adolescent mental health. We are both from the School of Psychology and Psychiatry at Monash University.

About the study

The aim of the study is to investigate the effectiveness of workshops designed to promote adolescent well-being and mental health.

What is involved?

If your daughter or son decides to take part in this study s/he will be randomly allocated to one of three groups.

Group A: Being allocated to Group A involves taking part in a day-long workshop that explores strengths and things that make life pleasurable, engaging, and meaningful. This workshop will be part of a health day which will take place on the 20/4/10. There will also be some simple activities to be completed at home.

Group B: Being allocated to Group B involves taking part in a day-long hour workshop that explores the simple pleasures in life. This workshop will also be part of a health day which will take place on the 20/4/10. There will also be some simple activities to be completed at home.

Group C: Participants allocated to Group C will take part in general health day activities such as healthy relationships, sexual health, and partying safely.

Assessments and questionnaires

All participants will be required to fill out questionnaires at three different time points (over the course of approximately 2 months). These questionnaires ask about participants' mental health and well-being. There will also be some general questions about participants' age, gender, and cultural background. Please note that your son or daughter does not have to answer any questions he or she is not comfortable with.

Some important information

Some of the questionnaires ask about participants' experience of depression and anxiety. While some responses to these measures could indicate that your daughter or son is at risk of problems with depression or anxiety, by itself it is not enough information to make an accurate assessment about your son or daughter's mental health. Therefore, we will not inform you or your daughter/son about their results. However, if at any stage of this study we are concerned about your son or daughter's welfare we will contact you immediately.

Participation in this study is voluntary and your son or daughter is free to withdraw at any time. However, please note that any information that has already been provided can not be deleted.

As the focus of this project is enhancing happiness and mental health, it is believed that taking part in this study does not pose significant risks to participants. However, if taking part in this study causes your son or daughter distress, or if you or your son/daughter has any mental health concerns, we recommend the following services:

Kids Help Line	1800 55 1800 www.kidshelp.com.au
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Lifeline	13 11 14 www.lifeline.org.au
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The Australian Psychological Society (referral line)	1800 333 497 www.psychology.org.au
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Victorian Government Community Health Directory
www.health.vic.gov.au/communityhealth/service_provider/community_health_directory.htm

Infexchange Service Seeker www.serviceseeker.com.au	Reach Out www.reachout.com.au
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Some other important details

In accordance with Monash University regulations, only the researchers will have access to the original data and the questionnaires will be stored in a private location for at least 5 years after which they will be shredded. Overall findings of this study may be published in a research paper, a conference paper, and/or an oral presentation. However, no findings or details that identify individual participants will be published.

Individual scores on the questionnaires will not be available, however, if you have any queries or would like to be informed of the overall research findings please contact Dr Vella-Brodrick on 03 9903 2542 or via email at dianne.vella-brodrick@monash.edu or myself via email at jacolyn.norrish@monash.edu.

Contact information

If your daughter or son decides to proceed with this study (and you are happy for them to do so) please fill out a consent form. Your daughter or son will also be asked to give their consent.

Should you have any complaint concerning the manner in which this research is conducted, please do not hesitate to contact the Monash University Human Research Ethics Committee at the following address:

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a complaint concerning the manner in which this is being conducted, please contact:
Dianne Vella-Brodrick Phone: +61 3 9903 2542 Fax: + 61 9903 2501 email: Dianne.Vella-Brodrick@monash.edu .	Human Ethics Officer Monash University Human Research Ethics Committee Project Number: CF09/1207 - 2009000604 Building 3e Room 111 Research Office Monash University VIC 3800 Tel: +61 3 9905 2052 Fax: +61 3 9905 1420 Email: scerh@adm.monash.edu.au

Thank you,

Jacolyn Norrish

Appendix C: Explanatory Statements and Consent Forms

Study 3: Participant consent forms (RCT).

NOTE: Signed written consent will remain with the Monash University researchers for their records.

I agree to take part in the above Monash University research project. The project has been explained to me and I have read the Explanatory Statement, which I keep for my records.

I understand that agreeing to take part means that I am willing to:

- Take part in the activities of whichever group I am allocated.

AND

- Complete questionnaires about my mental health and well-being at various time points over a 2 month period.

I am aware that participation in this study is voluntary and that I am free to withdraw at any time (however, information that I have already provided can not be deleted).

Participant's name: _____

Participant's signature: _____

Date: _____

Please list any serious food allergies: _____

Appendix C: Explanatory Statements and Consent Forms

Study 3: Parent/carer consent forms (RCT).

NOTE: Signed written consent will remain with the Monash University researchers for their records

I agree that my son/daughter may take part in the above Monash University research project. The project has been explained to my son/daughter and to me and I have read the Explanatory Statement, which I keep for my records.

I understand that agreeing to take part means that I am willing to allow my son/daughter to:

- Take part in the activities of whichever group he or she is allocated.

AND

- Complete questionnaires about his or her mental health and well-being at various time points over a 2 month period.

I am aware that participation in this study is voluntary and my son/daughter is free to withdraw at any time. However, information that has already been provided can not be deleted.

Participant's name: _____

Parent/guardian's name: _____

*Parent/guardian's contact number: _____

Parent/guardian's signature: _____

Date: _____

**Please note – the researchers may contact you to verify your consent.*

Appendix D: Measures used in Quantitative Research

Measure	Stage 2	Stage 6
Children's Depression Inventory (Kovacs, 1982).	✓	
Children's Hope Scale (Snyder et al., 1987).	✓	
Depression Anxiety Stress Scale (Lovibond & Lovibond, 1995).		✓
Gratitude Questionnaire (McCullough et al., 2002)	✓	
Orientation to Happiness Scale (Peterson et al., 2005).	✓	
Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988).	✓	
Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985).	✓	
Short Warwick-Edinburgh Mental Well-being Scale (Stewart-Brown et al., 2009).		✓
State-Trait Anxiety Inventory – Trait Subscale (Spielberger, Gorsuch, & Lushene, 1970).	✓	
Strengths Use Scale (Govindji & Linley, 2007).	✓	
Student's Satisfaction with Life Scale (Huebner, 1991).		✓

Children's Hope Scale

Directions: The six sentences below describe how young people think about themselves and how they do things in general. Reach each sentence carefully. For each sentence, please think about how you are in most situations.

	All of the time	Most of the time	A lot of the time	Some of the time	A little of the time	None of the time
1. I think I am doing pretty well.	6	5	4	3	2	1
2. I can think of many ways to get the things in life that are most important to me.	6	5	4	3	2	1
3. I am doing just as well as other kids my age.	6	5	4	3	2	1
4. When I have a problem, I can come up with lots of ways to solve it.	6	5	4	3	2	1
5. I think the things I have done in the past will help me in the future.	6	5	4	3	2	1
6. Even when others want to quit, I know that I can find ways to solve the problem.	6	5	4	3	2	1

Depression and Stress Scale

Directions: Please read each statement and circle a number 0, 1, 2, or 3 which indicates how much a statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

	Applied to me very much, or most of the time.	Applied to me a considerable degree, or a good	Applied to me to some degree, or some of the time.	Did not apply at all to me.
1. I found it hard to wind down.	3	2	1	0
2. I was aware of dryness in my mouth.	3	2	1	0
3. I couldn't seem to experience any positive feelings at all.	3	2	1	0
4. I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion).	3	2	1	0
5. I found it difficult to work up the initiative to do things.	3	2	1	0
6. I tended to over-react to situations.	3	2	1	0
7. I experienced trembling (e.g., in the hands).	3	2	1	0
8. I felt that I was using a lot of nervous energy.	3	2	1	0
9. I was worried about situations in which I might panic and make a fool out of myself.	3	2	1	0
10. I felt like I had nothing to look forward to.	3	2	1	0

11. I found myself getting agitated.	0	1	2	3
12. I found it difficult to relax.	0	1	2	3
13. I felt down hearted and blue.	0	1	2	3
14. I was intolerant of anything that kept me from getting on with what I was doing.	0	1	2	3
15. I felt I was close to panic.	0	1	2	3
16. I was unable to become enthusiastic about anything.	0	1	2	3
17. I felt I wasn't worth much as a person.	0	1	2	3
18. I felt I was rather touchy.	0	1	2	3
19. I was aware of action in my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).	0	1	2	3
20. I was scared without any good reason.	0	1	2	3
21. I felt that life was meaningless.	0	1	2	3

Gratitude Questionnaire

Directions: Circle the number beside each item to indicate how much you agree with it.

Indicate the extent to which you agree or disagree with each statement.	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Agree	Strongly Agree
1. I have so much in life to be thankful for.	1	2	3	4	5	6
2. If I had to list everything I felt grateful for, it would be a very long list.	1	2	3	4	5	6
3. When I look at the world, I don't see much to be grateful for.	1	2	3	4	5	6
4. I am grateful to a wide variety of people.	1	2	3	4	5	6
5. As I get older, I find myself more able to appreciate the people, events and situations that have been part of my life history.	1	2	3	4	5	6
6. Long amounts of time can go by before I feel grateful to something or someone.	1	2	3	4	5	6

Orientations to Happiness Questionnaire

Directions: Please indicate your present agreement or disagreement with each statement.

Circle the number that best describes your present agreement or disagreement with each statement:	Not like me at all	A little like me	Somewhat like me	Mostly like me	Very much like me
1. Regardless of what I am doing, time passes very quickly.	1	2	3	4	5
2. My life serves a higher purpose.	1	2	3	4	5
3. Life is too short to postpone the pleasures it can provide.	1	2	3	4	5
4. I seek out situations that challenge my skills and abilities.	1	2	3	4	5
5. In choosing what to do, I always take into account whether it will benefit other people.	1	2	3	4	5
6. Whether at work or play, I am usually "in a zone" and not conscious of myself.	1	2	3	4	5
7. I am always very absorbed in what I do.	1	2	3	4	5
8. I go out of my way to feel euphoric	1	2	3	4	5
9. In choosing what to do, I always take into account whether I can lose myself in it.	1	2	3	4	5
10. I am rarely distracted by what is going on around me.	1	2	3	4	5
11. I have a responsibility to make the world a better place.	1	2	3	4	5
12. My life has a lasting meaning.	1	2	3	4	5

13. In choosing what to do, I always take into account whether it will be pleasurable.	1	2	3	4	5
14. What I do matters to society.	1	2	3	4	5
15. I agree with this statement: "Life is short-eat dessert first".	1	2	3	4	5
16. I love to do things that excite my senses.	1	2	3	4	5
17. I have spent a lot of time thinking about what life means and how I fit into its big picture.	1	2	3	4	5
18. For me, the good life is the pleasurable life.	1	2	3	4	5

Positive and Negative Affect Schedule

Directions: This scale consists of a number of words that describe different feelings and emotions. Please read each item and then circle the appropriate number. Answer in a way that indicates to what extent you generally feel this way, that is, how you feel on average.

Circle the number that indicates to what extent you generally feel this way.	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
1. Interested	1	2	3	4	5
2. Distressed	1	2	3	4	5
3. Excited	1	2	3	4	5
4. Upset	1	2	3	4	5
5. Strong	1	2	3	4	5
6. Guilty	1	2	3	4	5
7. Scared	1	2	3	4	5
8. Hostile	1	2	3	4	5
9. Enthusiastic	1	2	3	4	5
10. Proud	1	2	3	4	5
11. Irritable	1	2	3	4	5
12. Alert	1	2	3	4	5
13. Ashamed	1	2	3	4	5
14. Inspired	1	2	3	4	5
15. Nervous	1	2	3	4	5
16. Determined	1	2	3	4	5
17. Attentive	1	2	3	4	5
18. Jittery	1	2	3	4	5
19. Active	1	2	3	4	5
20. Afraid	1	2	3	4	5

Satisfaction with Life Scale

Directions: Below are five statements with which you may agree or disagree. Using the 1-7 scale, indicate your agreement with each item by circling the appropriate number. Please be open and honest in your responding.

Circle the number that best describes your present agreement or disagreement with each statement.	Strongly disagree	Disagree	Slightly disagree	Neither agree or disagree	Slightly agree	Agree	Strongly agree
1. In most ways my life is close to my ideal.	1	2	3	4	5	6	7
2. The conditions of my life are excellent.	1	2	3	4	5	6	7
3. I am satisfied with life.	1	2	3	4	5	6	7
4. So far I have gotten the important things I want in life.	1	2	3	4	5	6	7
5. If I could live my life over, I would change almost nothing.	1	2	3	4	5	6	7

Short Warwick-Edinburgh Mental Well-being Scale

Directions: Below are some statements about feelings and thoughts. Please circle the number that best describes your experience of each over the last 2 weeks.

Please circle the number that best describes your experience of each item over the last 2 weeks.	None of the time	Rarely	Some of the time	Often	All of the time
1. I've been feeling optimistic about the future.	1	2	3	4	5
2. I've been feeling useful.	1	2	3	4	5
3. I've been feeling relaxed.	1	2	3	4	5
4. I've been dealing with problems well.	1	2	3	4	5
5. I've been thinking clearly.	1	2	3	4	5
6. I've been feeling close to other people.	1	2	3	4	5
7. I've been able to make up my own mind about things.	1	2	3	4	5

Strengths Use Scale

Directions: The following questions ask you about your strengths, that is, the things that you are able to do well or do best. Please respond to each statement using the scale below.

	Strongly disagree						Strongly agree
1. I am regularly able to do what I do best	1	2	3	4	5	6	7
2. I always play to my strengths	1	2	3	4	5	6	7
3. I always try to use my strengths	1	2	3	4	5	6	7
4. I achieve what I want by using my strengths	1	2	3	4	5	6	7
5. I use my strengths everyday	1	2	3	4	5	6	7
6. I am able to use my strengths in lots of different situations	1	2	3	4	5	6	7
7. I use my strengths to get what I want out of life	1	2	3	4	5	6	7
8. My work gives me lots of opportunities to use my strengths	1	2	3	4	5	6	7
9. My life presents me with lots of different ways to use my strengths	1	2	3	4	5	6	7
10. Using my strengths comes naturally to me	1	2	3	4	5	6	7
11. I find it easy to use my strengths in the things I do	1	2	3	4	5	6	7
12. Most of my time is spent doing things that I am good at doing	1	2	3	4	5	6	7
13. Using my strengths is something I am familiar with	1	2	3	4	5	6	7
14. I am able to use my strengths in lots of different ways	1	2	3	4	5	6	7

Student Satisfaction with Life Scale

Directions: We would like to know what thoughts about life you have had during the past several weeks. Think about how you spend each day and night and then think about how your life has been during most of this time.

Circle the words next to each statement that represent the extent to which you agree or disagree with each statement.	Strongly disagree	Moderately disagree	Mildly disagree	Mildly agree	Moderately agree	Strongly agree
1. My life is going well.	1	2	3	4	5	6
2. My life is just right.	1	2	3	4	5	6
3. I would like to change many things in my life.	1	2	3	4	5	6
4. I wish I had a different kind of life.	1	2	3	4	5	6
5. I have a good life.	1	2	3	4	5	6
6. I have what I want in life.	1	2	3	4	5	6
7. My life is better than most kids.	1	2	3	4	5	6

Appendix E: Phone Interview Transcript

Introduction

I am going to ask you some questions that will help us to develop a program aimed at promoting good mental health in young people. There are no right or wrong answers. I am interested in your opinions and your responses to the questions.

If you would like to stop at any time, or if there is a question that you don't want to answer or don't understand, please let me know.

The interview will be audio-recorded, but only my research supervisor and I will listen to the recordings. To protect your privacy, your name or any details which could lead to your identification will not be disclosed at any time. Do you have any questions? Are you happy to take part in this research study?

Mental Health Program

We are designing a program that aims to help young people improve their mental health and well-being. Examples of activities that may be included are exploring and developing strengths and helping young people to develop skills in setting and achieving goals. The next few questions are aimed at gaining your advice and input into the format and design of this program.

1. Can you suggest any ways to make it engaging and interesting for young people?
2. Do you have any advice on what to avoid or what not to do?
3. Is there anything else important for us to consider, in your opinion?
4. Do you think the program should be delivered:
 - A. In small groups of young people?
 - B. Over the Internet?

C. Another way (if so, please specify)?

5. Do you think the program should be delivered:

A. As a formal part of school curriculum, (e.g., as a specific class)?

B. Informally as part of the school curriculum (e.g., integrated into other classes)?

C. As an after school class or activity?

D. Completely separate from school (e.g., at a local youth group or community centre)?

That concludes our questions. Is there anything else you would like to add or any other advice you have for us? Or do you have any questions? Thanks for your time.

Appendix F: Panel Study Questions

<p>Seeking your ideas!</p> <p>We have developed a mental health promotion workshop aimed at helping young people develop skills in identifying their strengths and exploring sources of happiness in their lives.</p> <p>In order to make the workshop as engaging as possible, we would like to obtain some input from young people. Please answer the following questions. Please feel free to be honest – there are no right or wrong answers.</p>

I find it useful to:	Not Useful	Slightly Useful	Moderately Useful	Very Useful	Extremely Useful
Take part in interactive activities (e.g., learn by doing).	1	2	3	4	5
Individually write my thoughts about different ideas.	1	2	3	4	5
Have group discussions.	1	2	3	4	5
Discuss things in pairs.	1	2	3	4	5

When learning about strategies for enhancing mental health, how important do you think the following things are?	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Information about the evidence behind the ideas is included.	1	2	3	4	5
Participants have the opportunity to ask questions.	1	2	3	4	5

I would be interested in exploring:	Not at all Interested	Slightly Interested	Moderately Interested	Very Interested	Extremely Interested
How to focus on the simple things in life.	1	2	3	4	5
How to savour pleasure.	1	2	3	4	5
What my strengths are.	1	2	3	4	5
How I can apply my strengths more often in life.	1	2	3	4	5
What makes life meaningful.	1	2	3	4	5
What makes life absorbing and engaging.	1	2	3	4	5
Gratitude.	1	2	3	4	5

Hope.	1	2	3	4	5
How I can use goals effectively.	1	2	3	4	5

One of the activities used in the workshop asks about role models. Which public figures do you think are good role models and why?

Do you think the following individuals are good role models?			
	Yes	No	I don't know who that person is.
Nelson Mandela			
Elmo			
Lisa Simpson			
Napolean Dynamite			
Robin Hood			
Barrack Obama			
Kevin Rudd			
Cathy Freeman			
Stephanie Rice			
The Dalai Lama			
Oprah Winfrey			
Ellen Degeneres			
Shrek			
Shakespeare			
Alice in Wonderland			
The Little Engine that Could			
Albert Einstein			
Yoda			
Helen Keller			
Glenn McGrath			
Steve Irwin			
Mother Teresa			
Fred Hollows			
Ghandi			
John Butler			
Robin Williams			
Mr Bean			
Homer Simpson			

One of the activities used in the workshop asks about life's simple pleasures. What do you think are the simple pleasures in life?

The mental health program is designed to be 5 hours long. Do you think that is:	
A. A good amount of time as long as breaks are included.	
B. Not long enough	
C. Too long. It would be better to break up the program over several days.	

Do you have any other advice on how to keep adolescents engaged and interested in the mental health program?

Can you think of a song:	
That is meaningful?	
That is fun?	
That is engaging? That you find yourself absorbed in?	

Can you think of a YouTube clip	
That is funny?	
That is meaningful?	
That is thought provoking?	

Is there anything else important to consider when designing or delivering mental health programs?

--

What is your gender?			
Male		Female	

What is your age?			
14	15	16	17

Appendix G: Summary of Positive Psychology Interventions

Table 1

Summary of Full Life Facilitator Manual: Objectives and Example Activities

Objectives	Example Activity
<i>1. Introduction Session</i>	
<ul style="list-style-type: none"> Welcome students. Explain the structure of the workshop. Play detective introductions. Introduce positive psychology. Reiterate the importance of negative emotions and avenues for help seeking. Introduce person-activity fit. 	<p><i>What makes people happy?</i></p> <ul style="list-style-type: none"> Show the YouTube clip: “T.I. - Whatever you like”: http://www.youtube.com/watch?v=nQJACVmanKY Have a group discussion on how happiness is portrayed in the media. Show students the YouTube clip by Louis CK: “Everything is amazing nobody is happy”: http://www.youtube.com/watch?v=8r1CZTLk-Gk Explain that the workshop is aimed at exploring activities that are believed to lead to <i>lasting</i> increases in well-being/mental health (i.e., identifying and applying strengths; savouring pleasure, engagement, and meaning; nurturing relationships via gratitude and kindness; and facilitating hope through setting goals).
<i>2: Strengths Session</i>	
<ul style="list-style-type: none"> To explore the benefits of a strengths approach. 	<p><i>Strengths and role models matching activity</i></p> <ul style="list-style-type: none"> This activity aims to introduce students to a strengths framework (i.e., Values

<ul style="list-style-type: none"> • To introduce students to various strengths in the VIA framework using the strengths role model activity. • To encourage students to explore their own strengths and brainstorm ways of applying strengths in different life domains. 	<p>In Action) and to encourage them to think creatively about strengths. It also serves as a reminder that everyone has different strengths.</p> <ul style="list-style-type: none"> • Instructions: Ask students to get into small groups. Give each group a set of the 24 strengths role model pictures and 24 strength labels. Point out to students that a brief description of the strengths is included in their workbooks. Instruct groups of students to match the strengths with the role models. Let students know that there are no right or wrong answers. Once all groups have completed the activity encourage groups to compare results and discuss similarities and differences.
<i>3: Pleasure, Engagement, and Meaning Session</i>	
<ul style="list-style-type: none"> • Explore pleasure, engagement, and meaning orientations to happiness. • Introduce simple savouring techniques. • Encourage students to explore sources of pleasure, engagement, and meaning in their lives and things they could do to live a more full life. 	<p><i>Introduction to flow and engagement</i></p> <ul style="list-style-type: none"> • Introduce the engagement orientation to happiness which emphasises the experience of being engaged or absorbed in meaningful challenges. • Ask if anyone one in the group enjoys dancing, making music, painting, writing, reading, or snowboarding. Ask one or two volunteers to share how they feel when they are engaged in such activities. • Introduce the characteristics of flow: the task is not too easy or hard; loss of awareness of surroundings; loss of sense of time; feeling of absorption. • Ask the group to brainstorm sources of flow and engagement in life.
<i>4. Positive Relationships (Gratitude and Kindness) Session</i>	
<ul style="list-style-type: none"> • To explore how gratitude and kindness 	<p><i>Gratitude card activity</i></p>

<p>contribute to well-being and social relationships.</p> <ul style="list-style-type: none"> • To create gratitude cards. • To brainstorm and explore life's blessings. • To compare a time when a student has done something for someone else with a time they have gotten something they wanted (i.e., kindness VS materialism discussion). • To explore the role of random acts of kindness in happiness. 	<ul style="list-style-type: none"> • Ask students to select a blank gratitude card. • Instruct students to think of someone that has had a positive impact on their life and whom they have never properly thanked. Encourage students to write a gratitude card thanking the person for their kindness and support. • Invite students to use the craft supplies if they would like to add some creative touches.
<h3>5. Hope and Future Possibilities Session</h3>	
<ul style="list-style-type: none"> • To explore how hope contributes to well-being and mental health. • To teach students some effective goal setting strategies. • For students to create future possibilities collages. 	<p><i>Future possibilities collage activity</i></p> <ul style="list-style-type: none"> • Instruct students to use the magazines, brochures, coloured pens, glue, scissors, and cardboard to create a collage of future possibilities (i.e., a visual depiction of things each student is excited and hopeful about). • Some ideas include: relationships, friendships, family, careers, travel destinations, goals, adventures, volunteer opportunities, hobbies, sports, etc.
<h3>6. Summary and Conclusions Session</h3>	
<ul style="list-style-type: none"> • Explore students' key learning. 	<p><i>Example practice activities – Creative gratitude</i></p>

<ul style="list-style-type: none"> • Explain the practice activities. • Thank students for their participation. 	<ul style="list-style-type: none"> • Instructions: Each day this week think of things that you are grateful for. However, instead of writing the blessings down express them in a creative way (e.g., take photographs, draw sketches, make a collage, or create a box of mementoes).
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Table 2

Summary of Simple Pleasures Facilitator Manual: Objectives and Example Activities

Objectives	Example Activity
<i>1: Introduction Session</i>	
<ul style="list-style-type: none"> • Welcome students. • Explain the structure of the workshop. • Play detective introductions. • Provide an introduction to simple pleasures. • Provide an overview of the broaden-and-build theory. • Conduct the simple things in life activity. 	<p><i>The simple things in life activity</i></p> <ul style="list-style-type: none"> • Bring students' attention to the list of 100 simple pleasures in the workbook. <p>Invite them to go through the list highlighting any simple pleasures that appeal to them. Facilitate a group discussion about the importance of simple pleasures and which simple pleasures are the most powerful and enjoyable.</p>
<i>2: Savouring Taste Session</i>	
<ul style="list-style-type: none"> • Encourage students to focus on the simple pleasure of taste. • Lead students through a savouring taste activity. 	<p><i>Savouring taste activity</i></p> <ul style="list-style-type: none"> • The aim of this activity is to give students an experience in savouring tastes and foods. Students should be given a choice of chocolate or fruit. • Lead students through a savouring taste exercise (e.g., think back to fond memories that involve chocolates/fruit; anticipate how good the

	chocolate/fruit is going to taste; look at the chocolate/fruit; feel the chocolate/fruit in your hand; smell the chocolate/fruit; take a tiny bite - let it rest on your tastebuds; eat the rest of the chocolate/fruit ensuring you truly savour it).
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3. Savouring sights session	
<ul style="list-style-type: none"> Encourage students to explore the importance of sight. Lead students through a sight appreciation activity. 	<p><i>Introduction to savouring sights</i></p> <ul style="list-style-type: none"> Show the students the following YouTube clip (that depicts Australian scenery) http://www.youtube.com/watch?v=uv6683Xeg-0&feature=related Facilitate a discussion on the importance of sight and savouring the things you see. The following questions may be helpful. Does any one regularly do the same walk/drive? How long has it been since you have truly noticed the scenery? Have you heard of anyone moving to a house with a view only to stop going out on the balcony a couple of months later?
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4. Savouring smell session	
<ul style="list-style-type: none"> Encourage students to explore the importance of smell. Lead students through the smells test activity. 	<p><i>Smell test activity</i></p> <ul style="list-style-type: none"> This activity requires the set of 10 smells in numbered jars. Ask the students to get into groups. Each group should receive 10 smell jars. Give each group 10 minutes to try to work out what each smell is. Give students the correct responses. Stimulate a discussion on students' reflections on the smell test. The following questions may be useful: Is smell one of life's simple pleasures? What are some powerful smells? How can we

	savour smell?
<i>5. Savouring Touch Session</i>	
<ul style="list-style-type: none"> Encourage students to explore the importance of touch. Lead students through the sense of touch activity. 	<p><i>Touch test activity</i></p> <ul style="list-style-type: none"> Instructions: This activity uses the box that has 20 different items in it. Each person in the group should get 30 seconds to identify as many different objects as they can (students can not see into the box). Ask students to write down the things they identified. After the activity is completed open up the box and show the group the different objects. Discuss the importance of touch in everyday life.
<i>6. Savouring Sound Session</i>	
<ul style="list-style-type: none"> Encourage students to explore the importance of music and sound in life. Encourage students to explore strategies for savouring sound. 	<p><i>Savouring songs activity</i></p> <ul style="list-style-type: none"> Instructions: Invite students to write down three words that describe how they feel right now. Play 30 seconds of the first song (Funhouse by Pink). Ask students to write down three words that describe how they <i>now</i> feel. Repeat this process for the next two songs (All by Myself by Eric Carmen and Don't Panic by Cold Play). Facilitate a group discussion on how students' feelings changed while listening to the three songs.
<i>6. Summary and Conclusions Session</i>	
<ul style="list-style-type: none"> Explore students' key learning. Explain the practice activities. 	<p><i>Example practice activities – In the kitchen</i></p> <ul style="list-style-type: none"> Instructions: Help with dinner, create a meal, or bake a cake. Pay attention to

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- Thank students for their participation. the smell and taste of the food. Notice how when you mix different food components together the consistency changes.
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Note. Complete versions of the full life and simple pleasures facilitator manuals and student workbooks are available from the researchers. Please contact Jacolyn Norrish (Jacolyn.Norrish@monash.edu).