Examination of an Indicated Prevention Program
Targeting Emotional and Behavioural Functioning in Young Adolescents

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This thesis is submitted as part requirement for the degree of Doctor of Clinical Psychology, Murdoch University
Declaration

I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education at any tertiary education institution.

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Jacinta Macintyre
2013
Dedication

I dedicate this thesis to my parents Angela and Greg Macintyre. Thank you both for all the sacrifices you have made in ensuring I always have the best opportunities at everything in life. Your unwavering financial and emotional support has allowed me to pursue a career that I absolutely love, and for that I will never be able to repay you.
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Abstract

The current study is an evaluation of the Life Skills Program, an indicated prevention program developed by a team of clinicians within the Child and Adolescent Health Services (CAHS; government run specialist mental health service) in Western Australia. Typically, young people who meet criteria to access CAHS are those who are on the more extreme end of the spectrum of mental disorders. This access pattern is mainly due to resource limitations and, therefore, complex and high needs clients are prioritised first. The Life Skills program, developed as a way of revising the traditional model of service delivery, aims to reduce the incidence of mental health disorders among adolescents, by targeting sub-clinical populations, thereby averting severe mental health dysfunction.

The program content draws upon various therapeutic techniques from Cognitive-Behavioural, Dialectical Behaviour, and Acceptance- and Mindfulness-based models of therapy intervention, with an overall primary focus across these techniques on emotional regulation as a target for intervention. The program consists of eight weekly sessions of group therapy, designed to be delivered over the course of one school term.

The current study was aimed at gaining a better understanding of how the Life Skills program impacted the behavioural and emotional functioning of young adolescents, aged 12 to 14 years, who had been identified as being at-risk for developing clinical disorder. Groups were run seven times within six different high schools in the Perth Metropolitan area and questionnaires were administered pre- and post-
intervention. It was hypothesised that participants assigned to receive the Life Skills program, when compared to participants assigned to the no-intervention control group, would experience (a) significant reductions on measures of psychological indicators including depression, internalising and externalising symptoms and (increases in) self-esteem and (b) significant improvements on measures of process skills including coping skills, acceptance and mindfulness and (a reduction of) fear of emotions.

Results showed that there were significant intervention effects for productive coping (subscale of the Adolescent Coping Scale), acceptance and mindfulness, symptoms of depression, and fear of anxiety (subscale of the Modified Affective Control Scale for Adolescents-Revised). However, there were non-significant results for the remaining coping subscales, the remaining fear of emotions sub-scales, self-esteem, and internalising and externalising symptoms. Structural Equation Modelling (Path Analysis) revealed that the changes in the participants’ psychological indicator measures (depression symptoms and emotional symptoms), based on their assignment to either prevention or control group, was partially mediated through their acquisition of acceptance and mindfulness skills, a decrease in their fear of emotions and increased productive coping skills.

The current findings inform best practice in terms of models of service delivery within CAHS and also make an important contribution to knowledge generation in prevention science. In particular, the findings support etiological theories that highlight
the role of emotion regulation as an underlying mechanism for the development of psychopathology.
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Chapter 1

A Contextual Understanding of Prevention Science

Adolescence can be defined as the phase of gradual transition between childhood and adulthood, involving intense and significant biological, cognitive and socio-emotional changes (Carr, 2006; Somerville, Jones, & Casey, 2010). These changes occur concomitantly with an array of contextual transitions including, a move towards a state of relative autonomy, independence and increased salience of social and peer rejection (Blakemore, 2008; Casey, Jones, & Hare, 2008). Thus, it is not surprising that many researchers consider adolescence to be a period of heightened stress (Spear, 2000), associated with somewhat concerning health statistics (Somerville et al., 2010).

For many young people, adolescence is an exciting time of life, filled with opportunity, as they take on and accomplish critical developmental tasks related to behavioural self-organisation, the pursuit of relationships outside the family, and other such tasks paving the way toward independent living (Luciana, 2010). But, for some individuals, it is these very characteristics associated with this life transition that create greater vulnerability to difficulties with emotional and behavioural adaptation (Allen & Sheeber, 2009; Forbes, Silk, & Dahl, 2009; Spear, 2000). Not only is risk-taking elevated relative to other points in the lifespan (Steinberg, 2008), adolescence is a period of time that is associated with increased vulnerability to psychopathology, particularly with respect to affective disorders, substance abuse and psychosis (Kessler, Berglund, Demler, Merikangas, & Walters, 2005). It is these more negative outcomes that result in
parents, educators and public health advocates being particularly concerned with adolescence as a period of heightened vulnerability.

Indeed, the risk of future development of psychopathology in young adolescents is the focus of the current thesis, in which the main purpose of the research is to evaluate an existing indicated prevention program for young adolescents. To provide the foundation for the value of this evaluation, first, epidemiological information pertaining to the mental health issues of young people will be presented, as well as access patterns of this population and the identified barriers to accessing services. Next, the benefits of utilising the school as a community setting for the provision of services as a way of potentially overcoming some of the obstacles young people face in accessing services are outlined. These are discussed within the context of a strength oriented model of service delivery, as opposed to more traditional deficit-oriented models that adhere to a reactive approach to service delivery. Next, prevention and prevention programs are outlined and defined, specifically within the framework detailed by the Institute of Medicine (IOM; Mrazek & Haggerty, 1994; O’Connell, Boat, & Warner, 2009), as a way of providing a contextual understanding of the nature of the program to be evaluated. A brief review of the literature demonstrating the efficacy of established prevention interventions specific to emotional and behavioural disorders is presented next, followed by a discussion on prevention science. Here the importance of accountability regarding the evaluation of a program’s impact, as well as the importance of the contribution of prevention science to knowledge generation, is highlighted, providing a rationale for the evaluation process specific to the current thesis. The
current chapter concludes with a summary and brief discussion regarding the application of the previously outlined literature and contextual basis to a real-world setting, in the evaluation of the Life Skills program.

The Mental Health Issues of Young People and their Access to Services

According to the Australian Bureau of Statistics, data collected in 2008 revealed that, during a 12-month period, 7% of Australian children and adolescents, aged zero to 17 years, were experiencing mental health problems. In addition to this, adolescents with mental health problems reported a high rate of suicidal thoughts and other health-risk behaviours, including smoking, drinking and drug use, with 12% of 13 - 17 year-olds reporting having had thoughts about suicide, while 4.2% had actually made a suicide attempt. Comparable findings were highlighted in an earlier study conducted by Sawyer and colleagues (Sawyer et al., 2001), in which 4509 Australian children, between four and 17 years of age were surveyed, using the parent-versions of the Diagnostic Interview Schedule for Children version IV and the Child Behaviour Checklist. Findings from the survey indicated that 14% of children were identified as having mental health problems and many of these were at increased risk for suicidal behaviour. Perhaps most concerning, though, is that among those children who met the diagnostic criteria for a mental disorder and whose parent reported that their child needed help, only 50% had attended any professional service during the six months prior to the study. Furthermore, only 17% of this group had attended a service specifically for mental health needs. This finding is consistent with results from the Australian Bureau of Statistics (2008), which recorded that only one out of every four young persons with
mental health problems had received professional health care. And again, data from the National Survey of Mental Health and Well-being (NSMHWB), conducted in 2007, found that one in four Australians, aged 16-24 years, experienced a mental disorder in the previous 12 months, with fewer than one in four of these young people accessing health services in a 12-month period (Reavley, Cvetkovski, Jorm, & Lubman, 2010).

Similar concerning statistics and evidence of poor access patterns have been found in epidemiological research conducted overseas. For example, in the United States of America it has been suggested that between 20% and 38% of youth are in need of mental health intervention, with as many as 9-13% presenting serious disturbances (Marsh, 2004). Some research has also recorded that as few as one-sixth of youth with diagnosable mental illnesses actually receive mental health treatment (Leaf et al., 1996). In Germany, the frequency and patterns of mental health service utilisation among 12-17 year old adolescents with anxiety and depressive disorders were examined. The study population comprised 1,035 adolescents recruited randomly from 36 different schools. Anxiety and depressive disorders were established based on DSM-IV criteria, and findings indicated that only 18.2% of the adolescents who met criteria for the anxiety disorders and 23% of those with depressive disorders reported ever having used mental health services (Essau, 2005). Another school based survey of 11,154 Norwegian youth, aged 15-16 years, reported that, even at the highest symptom levels for anxiety and depression, only one-third had sought professional help (Zachrisson, Rodje, & Mykletun, 2006).
Taking an overall view of these statistics, it has been suggested that one in four young people, aged 13 to 24 years, experiences a mental health disorder (Belfer, 2008). Some estimate the magnitude of the problem to be even larger, given there is a substantial quantity of young people who are not clinically ill but who demonstrate sub-threshold levels of symptomatology and are in need of some level of support in order to help prevent further risk (Noam & Hermann, 2002). Further to this, a wide range of studies nationally and internationally have attested to young people’s reluctance to seek professional mental health care (Rickwood, Deane, & Wilson, 2007).

The barriers that interfere with young people accessing help are important to consider when addressing the mental health needs of adolescents. In the families of those adolescents not receiving help, parents identified pragmatic issues, such as lacking information regarding where to access help, long waiting lists, and the cost of attending services, as the key obstacles to receiving assistance (Sawyer et al., 2001). Young people themselves have identified similar practical issues contributing to their reluctance to seek help, including inadequate transportation to service sites, a lack of affordable services, as well as a limited knowledge of available support (Stiffman et al., 2000). In addition to this, adolescents present with some developmentally unique issues that impact on their help-seeking behaviour. Given that youth are typically under the care of their parents or legal guardians, this very dependence on the people they are struggling to individuate from can result in potential conflict or tension, preventing them from asking for assistance, especially in the presence of family conflict (Wisdom, Clarke, & Green, 2006). Stigma and negative attitudes are further barriers towards seeking help.
from professionals. For example, young people are particularly concerned about being seen as “mental” by their friends and others, and the stigma of mental illness is associated with less intention to seek help (Rickwood et al., 2007).

As noted previously, the period of adolescence is characterised by dynamic changes and transitions, as well as being a maturational period of increased vulnerability to various forms of psychopathology. Without intervention, young people who are facing these multiple adversities, arguably, are at greater risk of encountering extensive problems and symptomatology (Luthar & Cicchetti, 2000). As such, adolescence can be considered a critical time period during which intervention and prevention will have a particularly powerful impact, through altering developmental trajectories (Horn, Possel, & Hautzinger, 2010). Findings from neuropsychological research add further credence to this assertion, as many researchers have demonstrated evidence for considerable brain plasticity, particularly during early adolescence (Gogtay & Thompson, 2010), which has important clinical implications. The universal process of brain maturation in adolescence is also embedded within an environmental context that influences the course of neural development (Steinberg, 2010), and thus, it is argued that the individual differences in brain structure and function can be associated with differences in experience. The heightened brain plasticity in adolescence, therefore, coupled with the extent to which patterns of synaptic proliferation and elimination are contextually-dependent, result in an increased vulnerability to certain forms of psychopathology (many of which begin or intensify during adolescence) (Steinberg, 2010), but, by the same token, this heightened plasticity makes this period a time of considerable
opportunity for intervention (Wahlstrom, Collins, White, & Luciana, 2010). Thus, the need for more effective and comprehensive approaches to enhancing adolescents’ access to appropriate mental health services appears unequivocal, and, taking this into consideration, the pertinence of help seeking and access patterns of young people, invariably intensifies from the points of view of researchers and clinicians.

To address the barriers young people face in accessing mental health services, there is growing recognition of the importance of ensuring services are ‘youth friendly’ (Muir, Powell, & McDermott, 2012). A comprehensive international framework on what constitutes ‘youth friendly’ health services has been provided by the World Health Organization (WHO; 2002). This framework contains references to the importance of equitable access, effectiveness, efficiency and rigorous evaluation. Further to this, there is an endorsed action that mandates not only the requirement of dedicated mental health services for adolescents, but also that mental health care should be integrated using cross-sectoral strategies into Australian communities in which adolescents reside, the institutions they attend and the educational programs they receive (Fisher & Mello, 2011).

Models of Service Provision: Schools as a Community Setting

The field of mental health has a long tradition of adhering to a medical model, which contends that emotional and behavioural difficulties are inherent deficits in individuals, resulting in an array of undesirable consequences, sometimes leading to disability (Delaney, 2011). Such deficit-oriented models are consistent with a reactive
approach to service delivery, whereby the system becomes activated in response to a referral, which is often made at a time when symptomatology has manifested towards extremity and, thus, children and families are in crisis (Fantuzzo, McWayne, & Bulotsky, 2003). When mental health services are provided in such a reactive manner, they are typically delivered at the site of designated mental health services (such as clinics or hospitals) and cases are usually difficult to treat, time consuming and expensive (Power, 2003).

More recently, there has been a shift away from this traditional model of service delivery, and the focus has been on providing alternative services to address community problems more effectively and inexpensively. Of particular interest is the extent to which research and discourse in the mental health and educational communities are focused on increasing the quality and comprehensiveness of services to children and adolescents by providing them in naturalistic settings (Wagner et al., 2006). Consistent with the recommendations by the WHO (2002), it is now largely recognised that schools offer a viable way to address the mental health needs of young people (Tharinger, 1995).

Given that youth are mandated to attend school (at least until the age of 15 in Australia), typical barriers to service delivery, such as time, transportation, financial constraints and stigma, are overcome to some extent in this setting (Macklem, 2011; Stephan, Weist, Kataoka, Adelsheim, & Mills, 2007; Talley & Short, 1996) and, as such, schools have the potential to reach a large number of students and families. Furthermore, given the amount of time that children and adolescents spend in these
settings, the important socializing influence that the institution exerts, and the co-morbidity of learning and mental disorders, it is not surprising that researchers and mental health practitioners consider schools to be optimal service delivery sites (Domitrovich et al., 2010).

Children and youth who are at risk for the development of, or who display, mental health disorders or emotional and behavioural difficulties are particularly vulnerable within the school setting, as it has been shown that they are likely to be recipients of high levels of verbal reprimand, ridicule and social rejection (Haynes, 2003). Further to this, research has demonstrated that these students are at greater risk of poor grades and academic failure (Augustyniak, Brooks, Rinaldo, Bogner, & Hodges, 2009; Reid, Gonzalez, Nordess, Trout, & Epstein, 2004), and have a higher probability of being expelled, school absenteeism and running away from home (Costello, Foley, & Angold, 2006; Egger & Angold, 2006; Kovacs & Lopez-Duran, 2010). As such, young people with mental health issues are particularly salient to educators and school psychologists, and thus the need for support and services for these young people within the school system is strongly advocated for by these personnel (Healthfield & Clark, 2004; Natasi, 2000).

The delivery of mental health services within an accessible community setting (the school), as outlined above, can be considered a strength-orientated model of service delivery. Power (2003) contends that this approach differs fundamentally from those approaches grounded in more traditional deficit-orientated models, primarily due to
differences relating to reactive versus proactive action. More specifically, in relation to
the reactive approach (deficit-orientated model) services are initiated in response to a
referral, whereas programs that have been developed in response to needs identified in
the population are conducive to a proactive approach (strength-oriented model).
Strength-orientated or proactive initiatives particularly emphasise an approach to service
delivery that accentuates the value of prevention, as well as being responsive to the
needs of young people with identified problems who need services.

The very nature of prevention is inherently proactive, given that the aim is to
reduce the incidence of mental health disorders among children and adolescents, by
altering developmental trajectories and, thereby, averting severe mental health
dysfunction. The science and practice of prevention is largely derived from research
related to developmental psychopathology and resilience (Domitrovich et al., 2010;
Macklem, 2011). A key insight derived from this research is that mental health
outcomes are determined by the culmination of both risk factors as well as protective
factors in the young person’s life (Fergus & Zimmerman, 2005; Flay et al., 2005;
Stouthamer-Loeber, Loeber, Wei, Rarrington, & Wilkstroem, 2002).

**Preventing Mental Health Problems**

Given that most cases of adult psychological disorders make their first
appearance prior to or during adolescence (Kim-Cohen et al., 2003; Roza, Hofstra, van
der Ende, & Verhulst, 2003), many clinicians and researchers claim that earlier
identification of and intervention for emotional disturbance and disorders is critical
(Delaney, 2011; Healthfield & Clark, 2004; Herrman, 2001; Stephan et al., 2007). This claim is based on the assumption that the earlier a mental health condition is identified and intervention commenced, the less serious the course of illness and the lower likelihood that it will disrupt healthy adolescent development (Jamieson & Romer, 2005). Not only does early intervention and prevention have potential benefits for the consumer, but these benefits are also relevant from a public health perspective. By preventing mental health problems that afflict young people and impair their adulthood, early intervention programs could reduce the growing cost of health care, improve educational outcomes and, therefore, improve economic productivity and the quality of life (Haynes, 2003).

In its 1994 report, Reducing Risks for Mental Disorders: Frontiers for Prevention Intervention Research, the Institute of Medicine (IOM; Mrazek & Haggerty, 1994) distinguished between prevention and treatment, and identified three levels of preventive intervention based upon a “continuum of care” spectrum, defined by the degree of risk in the participant population. Universal (Tier 1) preventative interventions are interventions administered to all members of a particular population (e.g., interventions delivered to all students in year 10 at high school). Selective (Tier 2) prevention programs are provided to a sub-sample population whose risk is deemed to be above average (e.g., assuming that parental separation is a risk factor for childhood depression, a selective prevention program would be delivered to children whose parents had recently separated). Indicated (Tier 3) prevention programs are given to individuals who manifest subclinical signs or symptoms of a disorder.
**Tier 1: Universal programs.**

In a universal strategy, all members in an available population receive the intervention. Thus, universal programs are provided to all students in a class simply due to their attendance in that class and not based on any other factors or unique characteristics. In this way, it is suggested that universal programs reduce the stigma for students who are served, as the population is treated as one entity (Domitro维奇 et al., 2010). As a result, these programs may be more readily accepted and adopted, and unsurprisingly, much of the available research has centered on universal programs (Macklem, 2011). A potential disadvantage of these types of programs, however, relates to weighing up the costs and benefits of providing an intervention to whole populations that include many individuals who likely are at low risk of developing psychopathology. Thus, considerable resources and effort are directed towards individuals who are unlikely to develop disorder, irrespective of exposure to the intervention (Greenberg, Domitro维奇, & Bumbarger, 2001). Furthermore, for those children included within the whole population who are already at higher risk for psychopathology, there is the potential for universal programs to be insufficient to alter developmental trajectories, given that the duration and intensity of these programs are typically at a low dose (Greenberg et al., 2001).

**Tier 2: Selected programs.**

Selected or targeted programs are delivered to students who are carefully selected due to their association with some known risk factors. The subgroups of students identified for selected interventions are at higher risk of developing disorders
than their peers (Domitrovich et al., 2010) and thus, interventions are designed to intervene with these youth around a particular issue (Macklem, 2011). The risks may be identified in a number of ways, ranging from exposure to specific traumatic events (e.g., death of a parent) to familial markers (e.g., parent diagnosed with a depressive disorder), but typically do not involve assessment of the young person’s own problem behaviours (Beardslee, Gladstone, Wright, & Cooper, 2003; Sandler et al., 2003).

One potential criticism of selective intervention relates to a lack of understanding of the precise factors of risk that are strongly related to the development of psychopathology. Although the prevention literature has soundly identified and produced data on what constitutes risk, these indicators are not always precise (Ingram, Odom, & Mitchusson, 2004). For example, a familial marker, such as parental depression, is considered indisputably a risk factor for depression; however, not all children who have a depressed parent eventually become depressed and not all individuals who become depressed had a parent diagnosed with depression. From this, it would appear that there is significant room for improvement in the understanding of risk factors for the development of psychopathology. However, precision is not necessarily a prerequisite for effective intervention, especially considering the insurmountable evidence for the effectiveness of psychotherapy in general, despite the field’s incomplete understanding of change processes (Ingram et al., 2004). Consequently, the current researcher would argue for the value in selective intervention, despite an equivocal and imprecise understanding of risk, while also noting that future
research pertaining to a greater understanding of the factors that constitute risk will yield more effective prevention.

**Tier 3: Indicated programs.**

Indicated programs and interventions target students who are identified as having symptoms related to mental disorders (Domitrovich et al., 2010). Such programs seek to identify early signs of maladjustment and to intervene before full-blown disorders develop. By definition, indicated prevention assumes a particular population perspective that involves some form of evaluative or screening procedure in which established criteria are used to target some members of a particular population (Durlak & Wells, 1998).

A criticism of this type of intervention relates to the possibility that, given the number of years the targeted population has had to acquire vulnerability and risk, it is potentially addressed inadequately, by the unsubstantial duration and intensity typical of indicated programs (Ingram et al., 2004). Despite this, there is a vast growing body of evidence that has demonstrated the efficacy of indicated prevention in reducing the severity of clinical symptomatology, as well as delaying the onset of disorder, and an overview of this literature is presented later in this chapter.

**Prevention defined.**

In the more recent report, entitled *Preventing Mental, Emotional and Behavioral Disorders among Young People: Progress and Possibilities*, the IOM reviewed the
history of prevention activities (O’Connell, Boat, & Warner, 2009), and largely adopted the definitions as articulated in the influential, previously published IOM report (Mrazek & Haggerty, 1994) as outlined above. However, as an addition, the committee noted that health promotion should be considered a component of prevention, given that the two are so closely related. They argued that prevention and health promotion have a common focus on changing influences on the development of children and adolescents, in order to aid them in functioning successfully, in accomplishing living skills, overcoming challenges, and avoiding cognitive, emotional or behavioural problems or difficulties impeding their functioning. Prevention can, therefore, be defined as intervention intentionally designed to reduce the further incidence of adjustment problems in non-disordered populations, as well as efforts directed at the promotion of mental health functioning (Durlak & Wells, 1997).

The overall goal of the three types of preventive intervention - universal, selective, and indicated - is to avert the incidence of mental health disorders (Mrazek & Haggerty, 1994). The IOM (Mrazek & Haggerty, 1994) purports that this is typically achieved through a risk reduction model that involves many facets. It is argued that even if the longitudinal goal of a reduction in cases has not yet been established, there is value in the documentation of a decrease in risk, and / or the increase in protective factors. In addition to the aim of absolute prevention of incidence of disorder, indicated preventions might seek to delay the onset of illness and to reduce the severity of cases in the short term. Furthermore, indicated programs may aim to reduce the length of time the initial symptoms continue and to interrupt the manifestation of severity so that
individuals do not meet diagnostic levels. And finally, the IOM (Mrazek & Haggerty, 1994) assert that even if the individual does eventually develop a disorder, the effects of reduction of the duration and / or severity of the disorder from the prior intervention should not be discounted. It is argued that the ultimate goal of prevention of disorder throughout the lifespan is preferable; however, the delay of onset is also a meaningful goal of prevention.

**Brief overview of the efficacy of prevention programs.**

Prevention science represents a collection of methods and principles derived from epidemiology, human development, psychopathology and education (Evans, 2009). It would appear that since the early 1990s, research has demonstrated that emotional and behavioural syndromes and many of their antecedent risks can be prevented (O'Connell et al., 2009; Stormont, Reinke, & Herman, 2010). When discussing prevention research, the current thesis will focus on those programs designed to prevent emotional and behavioural disorders only, as other issues that have been the target of some programs, for example, teenage pregnancy, are beyond the scope of the current thesis and are not relevant, to the current program under evaluation.

The earlier meta-analyses conducted by Durlak and Wells (1997; 1998) were the first to highlight outcome data in support of the statistical and practical significance resultant from prevention. Relating to universal and selective prevention, a review of 177 outcome evaluations indicated that most types of these programs achieved significant positive effects, and mean effect sizes ranged from .24 to .93, depending
upon program type and population (Durlak & Wells, 1997). It was noted that outcomes reflected both a decrease in subclinical levels of internalizing (inward conditions, such as anxiety and depression) and externalizing (those directed more outwardly, including disruptive behaviour problems, such as conduct disorder) problems and improved academic performance. In the meta-analysis of 130 indicated prevention studies, mean effect sizes were found to be in the .50s, and it was concluded that, overall, participants showed significantly reduced problems, significantly increased competencies, and displayed improvement in several areas of adjustment (Durlak & Wells, 1998). The authors further noted that indicated prevention programs using particular techniques appear to be as effective as psychotherapy for young people with diagnosed emotional and behavioural problems and more effective than attempts to prevent smoking, alcohol use, and delinquency.

More recent reviews and meta-analyses have continued to reveal support for the benefits of prevention. There appear to be a considerable number of programs which have been shown to be effective at promoting positive youth development (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002), preventing aggressive and disruptive behavioural problems (Park-Higerson, Perumean-Chaney, Bartolucci, Grimely, & Singh, 2008; Wilson & Lipsey, 2007), and preventing mental health problems (Hoagwood et al., 2007). Table 1 shows more specific examples of intervention programs across the prevention continuum, as well as highlighting some of the positive outcomes derived from this research. These programs have not been selected due to
<table>
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<th>Prevalent Program</th>
<th>Population Characteristics</th>
<th>Examples of Outcomes</th>
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<tr>
<td>FRIENDS Program</td>
<td>Children aged 10-13 years from primary schools</td>
<td>Children who received the intervention had lower self-rated anxiety levels than those of controls at post-intervention.</td>
</tr>
<tr>
<td>Problem Solving For Life (PSFL)</td>
<td>Young adolescents in grade eight (12-14 years) attending 16 participating high schools.</td>
<td>Results indicated that the program significantly decreased depressive symptoms between pre- and post-intervention.</td>
</tr>
<tr>
<td>New Beginnings Program</td>
<td>Divorced residential mothers and their children aged 9-12 years.</td>
<td>Children whose mothers participated in the program demonstrated significantly fewer internalising and externalising problems; mothers more effective disciplinary techniques and more positive relationships with their children.</td>
</tr>
<tr>
<td>Macquarie University Preschool Intervention Program</td>
<td>Children ages 3.5 to 4.5 years attending preschool. Inclusion based on mother completed ratings of their child's temperament.</td>
<td>Results at 12 months indicated that mothers in the intervention condition had self-ratings that indicated significantly greater decreases in their child's inhibited temperament compared to mothers in the control condition.</td>
</tr>
<tr>
<td>The Incredible Years Program</td>
<td>Target population of children ages 3-10 who had displayed depression scores in the 90th percentile or higher.</td>
<td>The program has been shown to improve parents' use of positive parenting practices; to reduce child aggression; and to improve children's social skills and academic achievement.</td>
</tr>
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superiority over other programs, but rather to demonstrate a variety of interventions that span the prevention continuum.

As is evident in Table 1, most program methods comprising prevention programs are reflective of, or have considerable overlap with, the techniques used in psychotherapy treatment of established disorders (e.g., psychoeducation, parent skills training, behavioural modification and other cognitive-behavioural approaches). The differences between treatment and prevention, however, are embedded in the populations targeted, the point in the problem or disorder trajectory at which intervention is received, the outcomes assessed, and the interest in longer term follow-up, characteristic of prevention research (Weisz, Sandler, Durlak, & Anton, 2005). For example, markedly longer follow-ups are necessary to document that the targeted negative outcomes have indeed been prevented. Despite this, a large number of studies and research evaluations fail to include follow-up data that exceed two years following intervention (Cuijpers, van Straten, Smit, Mihalopoulos, & Beckman, 2008). Thus, less is known about the reduction of incidence of disorder, as the positive impact of the programs could be related to delayed onset, rather than incidence. Therefore, the prevention of lifetime prevalence of disorder through prevention intervention is yet to have a sound empirical basis.

A closer look at indicated prevention programs.

Given that the program under evaluation in the current thesis constitutes an indicated prevention program, further discussion of program methods and efficacy will
be drawn from literature pertaining to these types of programs. More specifically, the scope of interest includes programs that were designed to produce improvements in specific psychological symptomatology or in factors generally considered to be directly associated with increased risk for child mental disorders, as these types of programs parallel most closely to the current Life Skills program (a full description of the current program under evaluation is detailed in the following chapter).

It would appear that a major focus of prevention research has been directed towards the prevention of childhood depression, and contemporary literature has revealed a number of promising strategies comprising these efforts. A number of studies have demonstrated efficacy in preventing depression in adolescence, through the provision of brief skill building interventions (see Horowitz & Garber, 2006). Cuijpers and colleagues (2008) report that preventive interventions for adolescents can reduce the incidence of depressive disorders by 23 percent. However, given that the follow-up period in most studies included in this review were not substantial, these results should be interpreted with caution, as the positive results may indeed be related to delayed onset rather than incidence. Results from these meta-analyses also suggested that larger effect sizes result from selective and indicated prevention, as compared to universal interventions (Cuijpers et al., 2008; Horowitz & Garber, 2006).

Similarly, in one Australian study evaluating a universal prevention program in a school setting (Spence et al., 2003) results indicated that the program significantly decreased depressive symptoms between pre- and post-intervention only for those
adolescents who had elevated symptoms (“high risk”, defined as 13 or higher on the Beck Depression Inventory) and, thus, it was suggested that students with greater depressive symptomatology may respond better to prevention programs. Overall, there is evidence to suggest that intervening through indicated prevention (targeting populations with elevated but subclinical levels of depressive symptoms) programs is considered to be an effective approach for preventing depression in adolescents.

Prevention strategies aimed at the prevention of depression are, for the most part, based on cognitive behavioural, parent training, psychoeducational and interpersonal approaches that intend to reduce risk factors and enhance protective and resiliency factors linked with depression in children and adolescents. More specifically, these strategies include reducing negative cognitions, increasing involvement in positive activities, strategies to promote optimism, and managing interpersonal and psychosocial stressors and there is evidence to suggest that these have been implemented with positive results (Evans, Beardslee, et al., 2005).

Two examples of indicated programs that have been extensively researched and that target adolescents at risk for future depression are the Clarke Cognitive-Behavioral Prevention Intervention (Clarke et al., 1995; Clarke et al., 2001) and the Penn Resiliency Program (Cutuli, Chaplin, Gillham, & Reivich, 2006; Gillham, Reivich, Jaycox, & Seligman, 1995). Empirical evidence has shown that the Clarke Cognitive Behavioral Prevention Intervention has been promising in preventing episodes of major depression in several randomised trials. The program is modelled after an effective cognitive-
behavioural treatment for depression and comprises 15 sessions of intervention incorporating cognitive-behavioural techniques that focus, in particular, on coping with stress. The original randomised trial targeted adolescents with elevated depressive symptoms and was delivered in schools. Longitudinal data revealed that, at one-year follow-up, intervention participants demonstrated a lower incidence of diagnosed depression (major depressive disorder or dysthymia) at 14.5%, as compared to participants in the usual care control group at 25.7% (Clarke et al., 1995). The key strengths of this research include randomised assignment of participants, adequate sample size, and inclusion of diagnosis of clinical disorder. It is important to note, however, that approximately 36% of the participants had suffered a prior episode of major depressive disorder. Given that prior episode of major depression is predictive of relapse or recurrence of the disorder (Hart, Craighead, & Craighead, 2001), results may, in fact, reflect the program’s impact to prevent relapse or recurrence rather than preventing first episode of disorder.

Another research trial expanded on the Clark et al. (1995) study by including parental depression, as well as presence of subclinical symptoms, to identify high-risk adolescents (ages 13-18), and participants were recruited from health maintenance organisations. Participants were screened and those who met criteria for major depressive disorder were referred for treatment, and those with no depressive symptomatology were excluded. Adolescents with moderate symptomatology were randomised into a usual-care condition or the program. At 15 month follow-up, participants in the prevention condition showed a significantly lower rate of major
depressive episodes at 9.3% than those in the care as usual condition at 28.8% (Clarke et al., 2001). Again, despite the well-designed methodology of this study, its specific implications for prevention are limited, as 67% of adolescents in the study had previously experienced an episode of depression and, thus, it is impossible to determine prevention of first episode of depression from prevention of relapse or recurrence.

The Penn Resiliency program is a school-based indicated prevention program targeting 10-13 year olds. The program was designed to prevent depression in young adolescents by assisting participants to become more flexible and rational in their thoughts relating to challenges and adversity that they may encounter. For example, participants are provided with psycho-education pertaining to the association between thoughts, feelings and behaviours and how to challenge negative thinking by evaluating the accuracy of beliefs and generating alternative interpretations. Results derived from an earlier evaluation of the program found that participation in the program halved the rate of moderate to severe depressive symptoms among youths (Gillham et al., 1995). In another study it was found that depressive symptoms were significantly reduced and classroom behaviour was significantly improved in the intervention group, compared with controls at post-intervention and at six month follow-up. The authors reported that the decrease in symptoms appeared to be most pronounced in the students who were most at risk (Jaycox, Reivich, & Seligman, 1994). The major limitations of these studies include the lack of randomisation to conditions, the use of self-report measures, attrition of approximately 30% of participants during follow-up and the failure to include diagnosis of clinical depression.
A more recent investigation of the Penn Resiliency program including diagnosis of clinical depression, has been conducted (Gillham, Hamilton, & Feres, 2006). In this targeted prevention study conducted in primary care clinics, participants were children, aged 11 and 12 years, identified as high risk, based on self-report questionnaire. Participants were randomised to prevention or control conditions and data were collected pre- and post-intervention and up to two years follow-up. Results indicated that participation in the program improved skills in cognitive re-structuring and reduced depressive symptoms for girls only. No overall prevention effects were found for depression diagnosis. The authors noted, however, that, during the follow-up interval, there was a trend for high symptom children who were assigned to the prevention intervention to have fewer diagnoses of depression than high symptom children assigned to the control condition. This trend could, therefore, suggest that meaningful preventive effects from the program are more applicable to children who are higher risk.

The Penn Resiliency program has also been adapted to suit Australian primary schools, in the form of the Aussie Optimism program (Roberts, Ballantyne, & van der Klift, 2002), a universal school-based prevention approach that was implemented as part of the Health Education curriculum of Western Australia. The program, intended to be run by classroom teachers, involves two components: 1) social life skills, which aim to assist participants in overcoming interpersonal risks, such as poor social skills and problem solving, lack of social support, and friendship difficulties, and 2) optimistic thinking skills, which target vulnerabilities, including pessimistic attribution style, negative self-perceptions and future expectations (Roberts et al., 2010). The program
has further been augmented with the development of a family-based model that involves parents (Drake-Brockman & Roberts, 2002). Research trials have demonstrated that the Aussie Optimism program is effective in reducing depressive symptoms and enhancing self-esteem in girls (Quayle, Dziurawiec, Roberts, Kane, & Ebsworthy, 2001), reducing anxiety and depressive symptoms in rural students with elevated levels of depression (Roberts, Kane, Bishop, Matthews, & Thompson, 2004) and reducing internalising symptoms in disadvantaged school children (Roberts et al., 2010).

**Prevention Science and Program Evaluation**

Current literature reviews suggest that school mental health prevention programs are rising, in synchrony with the wider recognition that building more services for youth in this universal setting has many advantages (Flaherty & Osher, 2003). With this proliferation in available programming, however, an emphasis on evidence and accountability has developed in parallel (Splett & Maras, 2011). In the more recent report from the IOM (O'Connell et al., 2009), the call has been for priority to be given to evidence-based prevention, particularly in light of the evidence that prevention scientists have now developed rigorous methods to assist with the development and evaluation of effective strategies.

In addition to a focus on outcome data, it is also argued that preventative interventions should assist in testing specific hypotheses about development and behaviour change (Izard, 2002). Given that prevention trials tend to occur in younger populations than most intervention trials, and because they tend to be concerned with
key risk factors for the development of psychopathology, they are particularly relevant for informing developmental theory (Kellam & Langevin, 2003).

For a long period of time it has been argued that behavioural scientists and clinicians hold a responsibility to continually move forward in efforts to apply knowledge gained through empirical investigations to science-based applications or practice, with the ultimate goal of providing best quality services to the consumer (Stricker, 2007). Prevention intervention efforts can play a vital role in bridging the worlds of research and clinical work and in facilitating theoretical advances (Farrell, Meyer, Kung, & Sullivan, 2001). This outcome can be achieved through various methodologies in prevention science and program evaluation, leading to information pertaining to how well a program has achieved its desired outcome, as well as information pertaining to how workable or effective the theory driving the program is.

The significance of the program evaluation central to the current thesis, therefore, is based on the premise that the evaluative process in itself facilitates a connection between prevention research and clinical practice in providing information regarding evidence-based practice. This evaluative process also has the potential to make a unique contribution to theoretical advancement through the investigation of risk and protective factors related to development of mental disorder. Thus, the current evaluation comprises two main parts. The first relates to accountability and program impact, in which the investigation focuses on whether the program was effective in producing the intended outcomes. The second relates to knowledge generation. Here
the process of examining mechanisms of change will assist in illuminating etiological theories pertaining to the development of psychopathology.

**Accountability and program impact.**

It is generally accepted that, for a prevention program to be considered optimally therapeutic and, thus, adopted and implemented, it must have empirical support for its positive outcomes (Pachankis & Goldfried, 2007). The Society for Prevention Research has clearly articulated standards for what constitutes an effective prevention program (Flay et al., 2005). They have stated that an efficacious prevention intervention will have a manual, involve training for program implementers, be tested in at least two rigorous trials involving specific populations, with sound data collection procedures and controls, and meticulous analysis of data. In addition, the intervention will demonstrate consistent positive results when evaluated in the real world, with attention to implementation, and include at least one long-term follow-up study.

Arguably, the investment of social resources, such as tax-payer dollars, in human service programs is justified, based on the premise that the programs will make beneficial contributions to society (Rossi, Lipsey, & Freeman, 2004). When an evaluation or research trial is conducted to determine whether the intended outcomes are achieved, this is termed a summative evaluation, given that its purpose is to render a summary judgment on the program’s performance (Rossi et al., 2004). Such evaluations typically have important implications regarding the continuation of the program, allocation of resources, and or restructuring.
Knowledge generation.

The empirical findings from prevention science experiments and evaluations can also be used to refine and modify the etiological theories that are used to guide the development of the intervention (Kellam & Langevin, 2003). One way this can be achieved is through careful research design and diligent measurement of ancillary process variables through which intervention effects may occur, resulting in a clearer understanding of theory-driving mechanisms underlying healthy and pathological development (Cicchetti & Hinshaw, 2002). Indeed, it has been purported that a main feature of the current prevention science model is the process of using an incomplete theory to guide the development of an intervention, and then using the empirical results to advance theory and provide greater clarity pertaining to gaps in the literature (Sandler, Gersten, Reynolds, Kallgren, & Ramirez, 1998). In this way, the IOM (O’Connell et al., 2009) have drawn attention to the comparisons between prevention science and traditional experimental sciences, where a traditional epidemiological approach to treatment of an established diagnosed disorder, such as schizophrenia, generally uses a randomized trial to test a specific treatment at a certain dosage and length, with the analyses demonstrating whether the treatment had a positive effect. In contrast, contemporary prevention trials are often aimed at informing etiological theory concurrently, as the preventive intervention examines both the malleability of identified risk factors and the directional chain leading from these risk factors to distal outcomes (Synder et al., 2006).
These causal chains can be explored through mediation modeling (Mackinnon, 2008). A mediator is an intervening variable that occurs between program exposure and some key outcome and represents a step on the causal pathway through which the program is expected to bring about change in the outcome (Rossi et al., 2004). Examining meditational models can not only lend support to the hypothesis that the positive outcomes of group participation can be attributed to the ‘active ingredients’ of the treatment program, but they can also inform already existing theoretical hypotheses regarding factors contributing to psychopathology. In other words, a mediation model that explains most of an intervention’s impact through the hypothesised pathways lends support to the underlying theoretical model of change (O’Connell et al., 2009). However, sometimes the desired outcomes can also result through factors unrelated to the program, and thus the hypothesised pathways contribute little explanatory power and, hence, a new theory (or improved mediating measures) needs to be ascertained as a way of explaining an intervention’s effects (Rossi et al., 2004).

Despite the view that knowledge generation is unique and adhered to in prevention science, some researchers argue that the pathways through which risk and protective factors influence each other and lead to the development of disorders are not well understood at this time, and additional research is needed to shed light on these relationships (Evans, 2009; Hayes, Bach, & Boyd, 2010). It has been suggested that, in fact, knowledge generation has been lacking in some research efforts, and it appears we know more about what outcomes are produced by our interventions than about what actually causes these outcomes (Weisz et al., 2005). For example, a review by Weersing
and Weiz (2002) examined various treatment and prevention trials for youth anxiety, depression, and disruptive behaviour, and highlighted that 63% of the studies included measures of potential mediating mechanisms in their designs, but only six studies attempted to conduct any formal meditational modeling.

The mediating role of self-talk in the Coping Cat intervention is an example of mediation investigation from treatment research included in the review. The cognitive-behavioural based treatment, developed by Kendall and colleagues, involved roughly 14-18 sessions, designed to teach youth to recognise the signs of unwanted anxious arousal, to which they then applied the adaptive anxiety management strategies they were taught. The major principles comprising the Coping Cat protocol include 1) recognising physiological reactions to anxiety 2) labeling and identifying cognition in anxiety-provoking situations (i.e., unrealistic or negative expectations) 3) developing a plan to cope with the situation (i.e., changing anxious self-talk into adaptive coping self-talk) 4) graded behavioural exposure and 5) evaluating performance and positive reinforcement (Albano & Kendall, 2002). In two clinical trials, the Coping Cat has been demonstrated to be more efficacious than waitlist control at post-treatment (Kendall, 1994; Kendall et al., 1997). The positive results generated from the first clinical trial (Kendall, 1994) have also being established over a three-year follow-up (Kendall & Southam-Gerow, 1996). Further research investigating the addition of a family treatment to the basic Coping Cat protocol has also recorded the efficacy of the treatment in comparison to the waitlist condition (Barrett, Dadds, & Rapee, 1996).
Using data from both Coping Cat clinical trial samples, meditational analyses (multiple regression) indicated that, in addition to the establishment of treatment participation resulting in a positive symptomatic outcome, the Coping Cat intervention demonstrated impact on potential mediators of intervention effects (Treadwell & Kendall, 1996). More specifically, youth assigned to the treatment condition endorsed significantly fewer negative self-statements on a self-report measure of self-talk. In turn, changes in number of negative self-statements and the balance of positive to negative self-talk mediated the impact of treatment on outcome. Thus, support was found for the meditational hypothesis that treatment effects are mediated by changes in anxious and negative self-talk. Although these results are important in highlighting effective therapy mechanisms in the treatment of anxious youth, they must be considered within the context of the methodological limitations of the research. It is possible that the relationship between self-talk and anxiety may have been attributed, to some extent, to the shared measurement variance inherent from the use of self-report measures. This interpretation of the findings is especially likely given that self-talk, as measured by youth self-report, was not shown to mediate treatment effects for teacher report, or for parent report symptom measures or diagnostic interviews.

In another example, Huey and colleagues (Huey, Henggeler, Brondino, & Pickrel, 2000) examined whether the relationship between Multisystemic therapy (MST) adherence and youth delinquency was mediated by three processes: parental monitoring, family functioning, and association with deviant peers. MST is a well known therapy program or approach, which has been extensively researched over decades. It is
designed to treat conduct problems in youth and focuses on improving parental monitoring of youth behaviour, increasing family cohesion and reducing coercion, and disengaging youth from deviant peer groups (Henggeler, 1999). In the Huey et al. study, a variant of path analysis was conducted to test the hypothesised relationships between quality of MST implementation (as rated by therapists, parents and youth), mediators and outcome. Results indicated that therapist adherence to the MST protocol was associated with improved family relations (family cohesion, family functioning, and parent monitoring) and decreased delinquent peer affiliation, which, in turn, were associated with decreased delinquent behaviour. Furthermore, support was found for mediation of MST effects on delinquency through changes in parental monitoring; however, mediation was only found when parent ratings of MST adherence were used in the model (no effects were found when therapist and youth rating were used).

In an example from prevention research, potential mediators of the effects of the New Beginnings Program (NBP) were examined (Tein, Sandler, MacKinnon, & Wolchik, 2004). The NBP (Wolchik et al., 2000) was designed to change potentially malleable factors that are associated with mental health problems for children of divorce. More specifically, the program targeted mother-child relationship quality, discipline, inter-parental conflict, and the father-child relationship. The mediational hypothesis was that program-induced change in these targeted variables would lead to program-induced change in children’s mental health problems (namely, internalising and externalising problems). The study involved 157 children who were randomly assigned to a parenting condition or control condition. Findings indicated that there was
a significant main effect of the program, resulting in reduced internalising problems from pre-test to post-test. In addition, there was a significant main effect for externalising symptoms, with significant reductions from pre-test to post-test, as well as at six-month follow-up, although children with higher baseline externalising problems showed greater benefit from the program, than those with lower baseline externalising problems. Similarly, significant program effects were found for the following mediators: mother-child relationship quality, mother’s attitude towards father’s visitation, father-child relationship quality, and inter-parental conflict, and again the program effects were greatest for families who initially demonstrated worse scores on each variable. Structural equation modeling, specifically path analysis, was used to test the various meditational models. Results indicated that program effects to improve internalizing problems were mediated through an increase in mother-child relationship quality. In addition, program effects to reduce externalising problems at post test and at six-month follow-up were mediated through improvement in post-test parental methods of discipline and mother-child relationship quality.

**Application to a Real-World Setting**

Epidemiological data have revealed that, overall, there are a considerable number of adolescents who experience mental health difficulties. Nonetheless, it is well documented that young people are unlikely to access treatment and support services (Costello, Copeland, Cowell, & Keeler, 2007). Given the strong association between mental health symptoms in childhood and prevalence of mental health disorder throughout the lifespan (Kessler et al., 2005), in addition to the large financial and
emotional burden of mental illness on the community, it is imperative that more effective and comprehensive approaches to enhancing young people’s access to appropriate mental health services be developed. Providing preventive interventions in schools could be considered a proactive, effective approach to address this problem (Power, 2003).

This rationale has formed the basis of an initiative developed by the Child and Adolescent Health Services (CAHS) in Western Australia. CAHS is a government-run, specialist mental health organisation that provides assessment, diagnosis, consultation and therapy for children and adolescents. CAHS clinics are spread around the metropolitan area, as well as in some regional areas. Typically, those young people who meet criteria to access this service are those who are on the more extreme end of the spectrum in terms of mental disorders. This access pattern is mainly due to resource limitations and, therefore, complex and high needs clients are prioritised. However, even when a young person with the most serious of problems has been referred and accepted to be managed within the CAHS service, there are usually very long waiting lists that can be anywhere between six to eight months. The very nature of this approach to service delivery is reflective of a deficit-oriented model (Power, 2003), in that consumers are usually at crisis point and treatment providers are reacting in response to more extreme symptom severity.

Indeed, the problems associated with this approach have led some clinicians within CAHS, to advocate a revision to its traditional model of service provision
through the development of an indicated prevention program provided within schools. This revised model, it is argued, facilitates the provision of specialist mental health services within an accessible community domain. It also promotes the collaboration between specialist mental health providers and school psychologists. It is envisaged that the liaison between CAHS and high school personnel, when implementing the program, works towards the goal of promoting a collaborative effort between schools and community service providers. The rationale for program development, therefore, is to create an expansion of mental health resources, by training other mental health providers, such as school psychologists, to work effectively in expanded roles. It is hoped that this will have a flow-on effect in terms of the type, frequency and nature of referrals from school personnel to CAHS clinics. It is also envisaged that the program will strengthen the relationship between school personnel and CAHS clinicians, thus improving consultation and effective case management.

Requests for such interdisciplinary collaboration are apparent in many areas of the school psychology literature. For example, in a discourse on the implications of health care reform for psychologists in the United States, Power (2003) highlighted the need for interdisciplinary partnerships between researchers, practitioners, and community stakeholders. Similarly, Nastasi (2000) also asserts that providing sufficient services within the school context to address the mental health needs of children and adolescents requires mental health and social service professionals from hospitals, clinics, mental health facilities and other community agencies to come together and engage in interdisciplinary efforts in terms of service provision, prevention, theory
building and research. Indeed, it appears that this viewpoint is reciprocated, in that psychiatrists, social workers, psychiatric nurses and psychologists are increasingly becoming involved in providing mental health consultation to schools, as the need for psychological expertise and services within the educational system is becoming more apparent (National Institute of Mental Health, 2006). The unified goal, therefore, is to promote a collaborative effect between schools and specialist service providers to design a system of care in which an informed and well-trained group of professionals, in concert with school personnel, can provide preventative and intervention services within one community setting - the school (Van Acker & Mayer, 2009). This goal is reflected in the current initiative by CAHS, as described above, and provides a contextual rationale for the evaluation of the Life Skills program.

In addition to the theoretical value of this initiative by CAHS, there is a need for empirical investigation into the efficacy of the prevention program, in order to determine whether these efforts are worthwhile. The evaluation of the existing indicated prevention program is the focus of the current research, and this process in itself is valuable, in that it essentially adheres to the principles of evidence-based practice. Gaining information regarding the program’s impact will have important implications for best practice in terms of models of service delivery within CAHS and, if this impact is positive, the justification for the allocation of resources to providing this type of intervention can be promoted. Further to this, the contributions to prevention science derived through the evaluative process, in terms of mechanisms of change contributing to the development of psychopathology, are equally valuable.
Chapter 2

Introduction to the Current Study

The current chapter will provide an introduction to the current evaluation and will detail the evaluative process more specifically. First, background information relevant to the development of the Life Skills program will be provided, followed by a description of the program components. Next the investigative process pertaining to program impact and knowledge generation will be conducted, in accordance with the framework for prevention research outlined by the IOM (Mrazek & Haggerty, 1994; O’Connell, Boat, & Warner, 2009). This process will include discussion on measurement of change in the targeted problem, as well as measurement of change in the theorised risk and protective factors. Furthermore, an examination of the theoretical models, derived from the literature addressing the association between the identified risk and protective factors and psychopathology, will be presented. More specifically, the association between emotion regulation and the development and maintenance of diverse forms of clinical disorder will be discussed, in order to inform the basis of the hypothesised mechanisms of change specific to the prevention program under evaluation. The aims and hypotheses of the current research will conclude the chapter.

Background and History of the Life Skills Program

From 2003, clinicians within CAHS noticed a particularly sharp increase in referrals initiated by student support staff from high schools in the Perth metropolitan area, relating to adolescents who presented with emotional dysregulation, deliberate self-harm and depression. As a consequence of this increase in referrals, CAHS was
struggling to meet the demand for services within the existing resources and modes of
delivery. In 2004 at the bi-annual meeting between CAHS and school psychologists in
the Northern Metropolitan area of Perth, school psychologists indicated that they were
being swamped by students seeking help and they, too, did not have the resources to
address this growing need. Consequently, it was decided that perhaps a different
approach was required, and that the situation might benefit from a preventative
intervention.

To address this identified need, a group program (named the Life Skills
program) was developed by a pair of clinicians (Clinical Psychologist and Mental
Health Social Worker, employed at a specific CAHS clinic). This program was
intended to enhance the skills of student support services staff in dealing with these
problems from within the school system, while effectively intervening with at-risk
adolescents before their symptoms reached clinical levels of severity and, therefore,
required a CAHS referral. This clinical team initiative can be considered reflective of a
strength-orientated (Power, 2003) approach to service delivery, given the preventative
nature of the intervention, in addition to the action being derived through an
interdisciplinary collaboration.

A decision was made by this clinical pair to target the intervention to Year 8
students, given that the age range of students in this year (approximately 12 – 14 years
of age) precedes the ages of the majority of referrals, namely students in Years 10 and
11, thus upholding the essence of prevention. In addition to this, students in Year 8
typically require additional support as they make the transition from primary school to high school. In this year, students face much greater academic demands, while the expectations for independent learning increase, and this adjustment is often further complicated by having to cope with the changes associated with puberty that most young people of this age begin to deal with (Wagner et al., 2006).

Between 2004 and 2008 clinicians appointed at CAHS delivered the Life Skills program within schools and attempted to measure the effectiveness of the group. Over this period of time, the program was run within four different high schools in the Perth Metropolitan area. Three different measures were used to evaluate the effectiveness of the program pre- and post-intervention. The standardised measures that were used included: the Adolescent Coping Scale (ACS; Frydenberg & Lewis, 1993), the Strengths and Difficulties Questionnaire (SDQ; Goodman, Meltzer, & Bailey, 1998) and the Childhood Depression Inventory (CDI; Kovacs, 1992). Paired sample t-tests, conducted on the measures between the pre- and post-group intervention, revealed some small, but significant, changes in the CDI subscales. Significant changes were not recorded on the ACS or the SDQ; however, there were non-significant changes on these measures, which suggested that the group members’ responses were changing in a positive way. These results were disappointing for those involved in the program, because, anecdotally, it appeared that the participants had benefited from the group. It was suggested, therefore, that perhaps improvements to the study’s methodology were needed for the benefits to be reflected empirically.
Ultimately, program effect is the difference between the outcome that did, in fact, occur and the outcome that would have occurred in the absence of the program. However, the simultaneous observation of outcome for the same participants under conditions where they both receive and do not receive the program is not possible (Rossi et al., 2004). Thus, as a way of assisting in improving methodology of the evaluation, a decision was made by the current researcher to include a control group, or non-intervention group, in the design. Further to this, the current researcher made the decision to incorporate additional measures into the design. In the previous research trial conducted by CAHS, two out of the three measures that were used were considered to be ‘clinical’ measures, in that they assess for the presence of clinical symptomatology. Implementing these measures only could potentially serve to underestimate results, given that the nature of the program is preventative and, therefore, targeted to a non-disordered population with the aim of preventing clinical symptomatology. Arguably, these measures may not be sensitive enough to identify statistically significant changes in the participants who would likely not be initially in the ‘clinical’ or ‘abnormal’ range of these measures. Therefore, the rationale to include additional instruments that measure process variables in the evaluation was to increase the likelihood that potential experimental effects could be reflected empirically.

**Components of the Life Skills Program**

The Life Skills Program can be classified as an indicated prevention program, as it is targeted to a sub-clinical population, who demonstrate mental health symptoms but at a sub-clinical threshold and, thus, do not meet criteria for diagnosis. The overall goal
of the program is to intervene at this level of symptomatology to prevent further manifestation of dysfunction, thereby averting severe mental health disorder. More specifically, the program seeks to prevent further depressive symptomatology and mood symptoms or internalising symptoms more generally, as well as increase skills in emotional regulation and positive psychological functioning for participants. The program consists of eight one-hour sessions designed to fit into a weekly slot over the course of one school term. The content focuses on psycho-education, emotion regulation and distress tolerance skills, mindfulness, identifying cognitive distortions and interpersonal effectiveness, including assertive communication. Table 2 shows a very brief overview of the program content in each session. The developers of the program created a detailed manual for group facilitators to follow (see Appendix A to view the manual).

**Evaluation of the Life Skills Program**

The IOM (Mrazek & Haggerty, 1994) suggest that the initial step in prevention research is to identify the disorder, cluster of disorders, or problem that is to be the target of intervention. Next, to prevent the disorder or problem, the investigator must ascertain a theoretical model based on the available body of knowledge that addresses the presence of risk factors and the deficiency of adequate protective factors associated with the disorder. These factors should be both causal and malleable, and thus able to altered through intervention.
### Table 2

**Session Content Comprising the Life Skills Program**

<table>
<thead>
<tr>
<th>Session</th>
<th>Brief Overview of Session Content</th>
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| **Session 1:** Rationale and psycho-education | • Introduction & rationale for the group  
  Icebreaker  
  Collaborative rule setting  
  Goals of the participants  
  Psycho-education on the nature of emotions |
| **Session 2:** Emotions | • Identify emotions  
  Noticing and labelling emotions  
  Myths about emotions (misunderstandings & misconceptions)  
  Functions of emotions (understanding why we have them)  
  Role-play non-verbal communication of emotions |
| **Session 3:** Relaxation and mindfulness | • Noticing when we are stressed / tense  
  Ways to relax- “safe place” meditation  
  Psycho-education on mindfulness  
  Experiential exercise: eating mindfully  
  Homework: engage in a mindful activity during the week |
| **Session 4:** Emotion regulation and distress tolerance | • Discuss mindfulness homework  
  Ways to appropriately manage overwhelming emotions  
  - Communicating emotions  
  - Pleasurable events  
  - Distress tolerance skills-engaging the senses  
  - Acting opposite to our emotions  
  Relaxation and mindfulness practice |
| **Session 5:** Thoughts and feelings | • Relaxation and mindfulness practice  
  Link between thoughts, feelings and behaviours  
  Experiential exercise: observe your reaction to a difficult situation including your thoughts, feelings and behaviours  
  Negative trap exercise |
| **Session 6:** Cognitive re-structuring | • Relaxation and mindfulness practice  
  Common thinking traps (apply to everyday examples)  
  Challenging unhelpful thoughts (practice in session) |
| **Session 7:** Communication and assertiveness | • Ways to communicate (including non-verbal communication, use of different mediums)  
  Three main styles of communication (aggressive, passive and assertive)  
  How to communicate effectively- using whole messages |
| **Session 8:** Review and closing | • Relaxation and mindfulness practice  
  Review group content- quiz show style  
  Discussion of most memorable aspect of the group/ what was most helpful  
  Other support services available |
Problem identification.

Adhering to the framework promoted by the IOM, the first task that the evaluation must undertake is to clarify and identify the target of the intervention. The current researcher attempted this task by identifying the overall goal of the program (as purported by the program developers) and based on the outcome measures used in the prior evaluation. As stated previously, the motivation for the development of the Life Skills program was to initiate an action to prevent the severity of mental health symptoms that indicate intensive intervention at the level that requires case management within CAHS. More specifically, the program content suggests that the goal is to target mood symptoms and disorders. This goal is also evident based on the program being developed in the context of an influx in referrals related to symptoms of depression and self-harm. In addition to this, in the previous pilot research trial conducted by CAHS, the measures used included the CDI, which measures depressive symptomatology, and the SDQ, which measures a range of symptoms related to internalising and externalising disorders. Therefore, presence of clinical symptomatology can be considered the identified problem that the Life Skills Program aims to target, ultimately preventing further manifestation of these symptoms.

Measuring outcome: Change in the identified problem.

Specific measures of psychological indicators.

Once problem identification has been established, careful selection of outcome measures is essential to the success of a prevention intervention trial. Psychometrically robust measures of change in the targeted problem, as well as measures of change in the
theorised risk and protective factors that are assumed to be responsible for the reduction in risk (Mrazek & Haggerty, 1994), must be selected.

It has been suggested that disorder-specific risk factors can be identified on the basis of assessment of elevated but subclinical levels of the disorder or prodromal indicators (O'Connell et al., 2009). Thus, in the current study it would appear that the assessment and measurement of clinical symptomatology, or psychological indicators, are an important outcome that will indicate effectiveness of the program. Consistent with the pilot research trial, depression and symptoms related to internalising and externalising disorders will be measured in the current study. In addition to these, the current study will investigate self-esteem as a psychological indicator variable.

**Depression.**

Depressive symptoms in adolescence are strongly associated with later depressive disorder, as well as a range of internalising and externalising problems in youth. For example, a number of studies have shown that subsyndromal depressive symptoms among adolescents predicted future clinical depression (specifically, a diagnosis of major depressive disorder) later in adolescence and young adulthood (Pine, Cohen, Cohen, & Brook, 1999; Weissman, Warner, Wickramaratne, Moreau, & Olfson, 1997). Furthermore, another study has shown that increasing levels of depressive symptoms among a substantial sample of non-depressed adolescents predicted increased levels of social difficulties and incidence of clinical depression, as well as increased substance abuse at age 24 (Lewinsohn, Rohde, Seeley, Klein, & Gotlib, 2000). These
findings suggest that subsyndromal depression increases an adolescent’s vulnerability to later incidence of clinical depression and other problems, resulting in members of this population being prime candidates for depression prevention programs. Thus, given that symptoms are evidently precursors to diagnostic episodes, they are an important outcome in and of themselves and, as such, most prevention studies for children and adolescents, target depressive symptoms as a key outcome variable (Gladstone & Beardslee, 2009). Based on this rationale and consistent with the previous research trial conducted by CAHS, the measurement of depressive symptomatology in the current study appears warranted.

**Internalising and externalising symptoms.**

Prodromal indicators or symptoms of internalising (conditions with a focus on the self, i.e., depression and anxiety) and externalising disorders (those directed more outwardly, including disruptive behaviour problems, such as conduct disorder), more generally, can also be considered important for assessment, as a way of measuring outcome in terms of change in problem identification as well as change in risk factors. Evidence suggests that more general forms of psychological distress can occur prior to, and alongside, the development of common mental health disorders (Harari, Waehler, & Rogers, 2005). The progressive nature of common mental health disorders has been highlighted in the literature, as it has been demonstrated that symptoms of anxiety often precede symptoms of depression and other mood disorders (Wilson, 2010). Therefore, the measurement of internalising and externalising symptoms in the current study will
provide information regarding the program’s impact on the malleability of these risk factors, as well as adhering to consistent measurement with the previous research trial.

**Self-esteem.**

Self-esteem can be defined as how much value people place on themselves (Baumeister, Campbell, Krueger, & Vohs, 2003). The construct is considered to be equivalent to conceptualisations of self-worth, self-regard and self-estimation and aligns with the dimension of self-concept that pertains to evaluation and affect (Mann, Hosman, Schaalma, & de Vries, 2004). Thus, high self-esteem refers to a highly favourable global evaluation of the self, whereas low self-esteem refers to unfavourable evaluation of the self. Some researchers argue that self-esteem is an important psychological factor contributing to quality of life (Evans, 1997) and there is evidence for the association between adequate self-esteem and fewer mental health problems (Beck, Brown, Steer, Kuyken, & Grisham, 2001; Wile, Bettge, & Ravens-Sieberer, 2008). Further to this, self-esteem appears to play a vital role in the development and maintenance of a variety of mental disorders. The construct features as a component in the diagnostic criteria of many disorders, as highlighted by the Diagnostic and Statistical Manual of Mental Disorders (DSM IV), including major depressive disorders, manic and hypermanic episodes, dysthymic disorders, dissociative disorders, anorexia nervosa, bulimia nervosa, and in personality disorders, such as borderline, narcissistic and avoidant behaviour (Mann et al., 2004). It has also been argued that mental disorder, or lack of efficient functioning can lead to negative emotion, resulting in low self-esteem,
thus, suggesting a bi-directional association between maladaptive functioning and self-esteem (Baumeister et al., 2003).

Self-esteem is not only conceptualised as a feature of mental health, but is also considered a protective factor that contributes to better functioning and positive social behaviour. Several school programs that have addressed self-esteem, through focusing on mental health promotion, have been shown to be effective in the prevention of eating disorders (O'Dea & Abraham, 2000), problem behaviour (Flay & Ordway, 2001), and the reduction of aggression, antisocial behaviour and delinquency (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005). In addition, laboratory studies have shown that high self-esteem is associated with participants persisting longer in the face of failure, specifically in conditions when there are no viable alternative tasks or goals to pursue, and when there are no cues to suggest that persistence is not a beneficial strategy. Alternatively, when presented with information that persistence may be a poor strategy or there are optional goals available, high self-esteem is also associated with knowing when to quit (Di Paula & Campbell, 2002). Thus, it would appear that in some contexts, people with high self-esteem use superior self-regulation strategies to those used by people with low self-esteem.

It is important to note that having too high a self-esteem can result in potential difficulties also, given that in normal populations, narcissism has been shown to correlate substantially with self-esteem (Emmons, 1984). The construct of narcissism is indicated by highly favourable, even grandiose views of the self, a sense of being special
or unique, fantasies of personal brilliance or beauty, and the belief that one is entitled to privileges and admiration by others (American Psychiatric Association, 2000).

**Investigating change processes that mediate outcome.**

The developers of the Life Skills Program incorporated various different therapeutic techniques from Cognitive-behavioral, Dialectical behavior and Acceptance-and Mindfulness-based models of therapy intervention. Based on the program content, it is argued here that, in essence, these techniques focus primarily on emotional regulation as a target for intervention. Following the establishment of problem identification, the next step in the research trial is to examine the theoretical model(s) derived from the literature that address the presence of risk factors and the deficiency of adequate protective factors associated with the psychological indicator variables in the current study (depression, internalising and externalising symptoms and self-esteem). Thus, in the current study it is purported that depression, externalising and internalising symptoms, and low self-esteem, are manifestations of emotional dysregulation or lack of emotional regulation skills. Therefore, change in the ability to adequately deal with emotion would be expected to mediate outcome in the Life Skills Program.

Over the past decade, there has been an escalation of interest in emotion regulation as a potentially unifying explanatory function underlying diverse symptom presentations (Gratz & Roemer, 2004; Macklem, 2011). Concomitant with this, there is the mounting evidence that difficulties in emotion regulation underlie many of the clinically relevant behaviours and psychological difficulties for which clients seek
treatment, including self-harm (Gratz & Chapman, 2007), borderline personality disorder (Gratz, Rosenthal, Tull, Lejuez, & Gunderson, 2006; Morton, Snowdon, Gopold, & Guymer, 2012), binge eating (Whiteside et al., 2007), depression and anxiety (Mennin, Heimberg, Turk, & Fresco, 2005; Roemer et al., 2009; Vujanovic, Zvolensky, & Bernstein, 2008) and post-traumatic stress disorder (Tull, Barrett, McMillan, & Roemer, 2007). Within the contemporary literature there are several conceptual definitions of emotion regulation; however, these descriptions are not strictly homogeneous and do vary to some extent. Gratz and Tull (2010) argue that two areas of contention, in particular, are most relevant to developing a more clinically useful definition of emotion regulation: whether emotion regulation refers to the explicit control of negative emotions or the control of behaviour when experiencing negative emotions.

One view is based on the assumption that the experiencing of negative emotions is an indicator of emotional dysregulation, and thus, within this context, the notion of controlling or reducing negative emotion is equated with emotional regulation (Gratz & Tull, 2010). This conceptualisation can be perceived as somewhat problematic, in light of the vast evidence to suggest that the very efforts to control, suppress or avoid negative emotion may actually result in a paradoxical effect, in which the frequency, severity and accessibility of these emotions are actually increased (Hayes, Strosahl, & Wilson, 1999; Salter-Pedneault, Tull, & Roemer, 2004). An alternative view of emotion regulation instead emphasises the functionality of all emotions and indicates that emotion regulation involves the ability to control one’s behaviours (e.g., by
inhibiting impulsive behaviours and engaging in goal directed behaviours) when experiencing negative emotions, rather than the ability to directly control one’s emotions per se. Therefore, a conceptual definition of emotion regulation that provides clinical utility may focus on adaptive ways of responding to emotional distress, rather than the control of emotions or dampening of emotional arousal in general (Gratz & Tull, 2010). This definition is favoured in the current study and, hence, the process of emotion regulation is conceptualised as divergent from the emotion generation process (Cole, Martin, & Dennis, 2004; Rottenberg & Gross, 2003).

The current study adopts the position of Gratz and Roemer (2004) who further elaborate on the concept of regulation as involving:

(a) awareness and understanding of emotions (b) acceptance of emotions, (c) ability to control impulsive behaviours and behave in accordance with desired goals when experiencing negative emotion, and (d) ability to use situationally appropriate emotion regulation strategies flexibly to modulate emotional responses as desired in order to meet individual goals and situational demands. (pp. 42-43).

The lack of any one of these skills and abilities would indicate the presence of difficulties in emotion regulation, or dysregulation. An increased emphasis on the importance of emotional processes in normative and atypical development is based primarily on research advances in developmental psychopathology (Southam-Gerow &
Kendall, 2002). These studies have demonstrated that emotion regulation is associated with indications of positive adjustment in normal populations, as well as in clinical samples of youth with diagnosed psychopathology (Suveg, Southam-Gerow, Goodman, & Kendall, 2007). For example, a study by Suveg and Zeman (2004) examined emotion processes in children (aged 8-12 years) who were diagnosed with an anxiety disorder, in comparison to their peers who did not have an anxiety disorder. Participants completed self-report measures that assessed the intensity of emotional experience, emotional self-efficacy, and emotional-regulated decisions in managing sadness, anger, and worry. Parents also reported on their children’s ability to manage emotional experiences. Results indicated that children with anxiety disorders (a) experienced anger and worry more intensely and (b) perceived themselves as less able to successfully manage emotionally provocative situations than children without anxiety disorders. With regards to emotion management, children with anxiety disorders demonstrated (a) more dysregulated emotional management and (b) less adaptive coping across anger, sadness and worry than did children without an anxiety disorder. In addition, mothers of children diagnosed with disorder viewed their children as significantly more inflexible, labile, and emotionally negative than did mothers of children without anxiety disorders. These and other similar findings in the literature (Simonian, Beidel, Turner, Berkes, & Long, 2001; Zeman, Shipman, & Suveg, 2002), highlight the critical role of emotion-related processes to understanding the development of psychopathology. It is also important to note that these results suggest that anxious children have difficulty with their responses to emotional situations, beyond those related to anxiety or worry. Similar findings have been reported in research examining emotional regulation in
young people with depression, where studies have shown that these young people display difficulties with anger regulation, not just sadness (Suveg et al., 2007).

Given that there is a growing body of literature suggesting that emotion dysregulation is a clinically relevant construct that may play a key role in the development and maintenance of diverse forms of psychopathology (Gratz & Tull, 2010), researchers and clinicians have highlighted, therefore, the importance of targeting emotion regulation difficulties within treatment and prevention frameworks (Izard, Fine, Mostow, Trentacosta, & Campbell, 2002). The National Institute of Mental Health (National Institute of Mental Health, 2006) has called for the integration of clinical research to examine the role of emotion on affective disorders among children and adolescents and has highlighted the importance of developing interventions, beyond typical cognitive-behavioural psychoeducational models, with attention to emotional regulatory processes. Treatment and prevention interventions for children and adolescents have historically focused on the cognitive and behavioural aspects of functioning, without highlighting emotional functioning (Izard, 2002; Southam-Gerow & Kendall, 2002). This trend is certainly evident in the previous chapter of the current study, where all of the prevention interventions presented, focused mainly on techniques derived from more traditional cognitive-behavioural models of intervention.

Some researchers have speculated that the wide accessibility and availability of Cognitive-Behavioural therapy, which is deemed to be among the most efficacious of treatments for internalising disorders in youth (King, Heyne, & Ollendick, 2005; Stark
et al., 2005), could be a contributing factor to the historical lack of emotion focus in existing interventions (Trosper, Buzzella, Bennett, & Ehrenreich, 2009). Despite the comprehensive documentation of evidence for the efficacy of cognitive-behavioural treatments in reducing symptomatology associated with a specific disorder (Kendall, Brady, & Verduin, 2001), it is argued within the contemporary literature that appropriately designed intervention components that generalise to a more diverse range of emotions are lacking in typical cognitive-behavioural treatments (Barlow, Allen, & Choate, 2004; Suveg et al., 2007; Synder et al., 2006; Trosper et al., 2009). Although research in this area is still in its infancy, some of the available evidence to support this claim will be presented. It is argued that, in light of studies demonstrating that anxious and depressed youth show signs of emotional regulation impairment beyond their specified disorder(s), treatments that contain more extensive emotion focused content may assist participants in gaining skills in overall adaptive emotional regulation (Aldo, Nolen-Hoeksema, & Schweizer, 2010; Bradley, 2000; Cole, Michel, & Teti, 1994). Given that deficits in emotion regulation have consistently been associated with psychopathology in youth, this would appear to be a valuable target of intervention.

Suveg, Kendall, Comer, and Robin (2006) developed an enhanced cognitive-behavioural intervention, namely, Emotion-Focused Cognitive-Behavioural therapy for youth with anxiety disorders. The program comprises components typical of cognitive-behavioural therapy programs, including psychoeducation, cognitive re-structuring, relaxation and exposure. However, the Emotion-Focused Cognitive Behavioural therapy includes the addition of specific emotion focused content. Emotion awareness
encompasses all sessions of the program and emotion regulation strategies are taught throughout (Trosper et al., 2009). Participants are assisted with the identification of their own emotions and the emotions of others and are instructed in management strategies. Furthermore, participants are taught to label emotions; emotional situations are examined and discussed, and exposure to difficult emotions takes place in session. Outcomes for youth participating in Emotion-Focused, Cognitive-Behavioural therapy have been positive. More specifically, participating youth have demonstrated improvement in anxious symptomatology and diagnostic status, as well as improvements in their ability to (a) identify emotional states (b) discuss emotion-related experiences, and (c) understand emotion regulation strategies (Suveg et al., 2006).

Although the initial outcomes for emotion-focused, cognitive-behavioural therapy are positive, it is important to consider that the improvements in emotion-related functioning could potentially result from the cognitive – behavioural aspects of this treatment. A more recent study by Suveg, Sood, Comer, and Kendall (2009) examined changes in emotion-related functioning in clinically anxious youth following a traditional course of Cognitive-Behavioural therapy. The study investigated changes in emotion awareness and worry, sadness, and anger regulation, in particular, based on previous research that had recorded deficits in these areas. Participants ranged in age from 7 to 15 and all met pre-treatment diagnostic criteria for a principle diagnosis of generalized anxiety disorder, separation anxiety disorder and/or social phobia, with some young people meeting criteria for more than one principle anxiety disorder. The results of the study revealed that at post-treatment, participants exhibited improvements
in anxiety symptoms, perceived ability to cope with anxiety-provoking situations (i.e., self-efficacy), and regulation of worry (i.e., reduced inhibition and dysregulation, increased adaptive and appropriate coping). However, these findings did not generalise to anger or sadness, suggesting that participants continued to experience regulation deficits in these areas.

Suveg et al. (2009) noted that Cognitive-Behavioural therapy for youth with anxiety disorders facilitates broad emotion identification skills but may not adequately assist youth with strategies to regulate emotional experiences beyond the experience of anxiety. Thus, it was asserted that an emphasis on a more diverse range of emotion regulation skills may enhance Cognitive-Behavioural therapy. In addition to this, regression analyses of their results showed that neither changes in anxiety self-efficacy, nor worry coping, significantly predicted anxiety reductions across time, despite these variables demonstrating significant post-treatment effects. Change in worry regulation was the only variable that predicted anxiety change. More specifically, it appeared that less inhibition and dysregulation over time (i.e., change in worry regulation) were most vital in predicting anxiety change scores. These finding add further credence to the contention that emotional regulation skills are important in effecting anxiety-related changes.

The advocacy for novel intervention methods and approaches that target commonalities in emotional disorder symptom presentations is founded upon emotion science and theory. This has led to the development of a unified treatment protocol in
which practitioners can address many emotion-related variables within the one intervention. The approach was initially outlined by Barlow and colleagues (2004) and examined within adult populations. The authors indicated that emotional disorders may be effectively treated through the application of a “unified” treatment model, in which three core cognitive-behavioural strategies had been adapted with respect to findings derived from emotion research. The first, cognitive re-structuring, parallels the traditional cognitive-behavioural strategy, but an emphasis is placed on antecedent re-structuring (i.e., concentrating on appraisal before negative affect is triggered). This focus is underpinned particularly by emotion research conducted by Gross (1998, 2002). The second strategy, prevention of emotional avoidance, involves a revision of traditional exposure therapy, such that *emotional experience* is the focus for the exposure task. The third strategy involves adapting emotional responding tendencies, through (a) disrupting and preventing behavioural actions associated with negative emotions (e.g., preventing avoidance associated with anxiety and fear) and (b) facilitating action tendencies linked with positive emotional experience (e.g., behavioural activation). Empirical evidence relating to the efficacy of this treatment approach has been demonstrated within adult populations (Ehrenreich, Buzzella, & Barlow, 2007). More recently, the protocol has been modified for use with children and adolescents, and preliminary results from a multiple-baseline design study, conducted by Ehrenreich, Goldstein, Wright, and Barlow (2009), are promising. All three adolescents in this study evidenced reductions in emotional disorder symptoms at post-treatment, including the complete remission of depression symptoms for one of the participants.
It is important to note that many of the programs focused on targeting emotional regulation, including those outlined above, are still under development, rather than empirically supported, at this time. Research in this area is certainly in its infancy and much remains to be explored (Silk, Steinberg, & Sheffield Morris, 2003). Given the initial positive findings and strong theoretical basis linking emotional regulation to the development of clinical disorder, further examination of interventions underpinned by emotion science appears warranted. The evaluation of the Life Skills program in the current study, therefore, can be considered beneficial in its potential contribution to narrowing the gap between the status of emotion science and its application to intervention. It is argued that the current research trial will assist in advancing the understanding of the development of emotion and emotion regulation, as well as clinical disorder.

**Measuring change in emotion regulation.**

Most conceptualisations of emotion regulation appear to have a commonality in the assertion that emotional regulation strategies not only encompass affective experiences, but also cognitive, behavioural, and physiological processes (Augustyniak et al., 2009). Aldo et al. (2010) recently conducted a meta-analytic review of emotion regulation strategies across psychopathology and drew attention to the consensus in the literature pertaining to the consideration of specific emotion regulation strategies as either adaptive or maladaptive. In particular, the authors reported that the three emotion-regulation strategies that have been extensively theorised to be protective against psychopathology are reappraisal, problem solving, and acceptance.
Alternatively, the three strategies that have consistently been purported as risk factors for psychopathology are suppression (including both emotion suppression and thought suppression), avoidance (including both experiential avoidance and behavioural avoidance), and rumination. These adaptive and maladaptive strategies are addressed within the Life Skills program and the current study seeks to measure these processes as a way of examining their potential impact on psychological indicators. In other words, the current study will investigate whether change in the measured process variables (or emotion regulation skills) accounts for change in the measured psychological indicator variables.

**Specific measures of process.**

Consistent with the pilot research trial, coping skills will be measured in the current study. In addition to this, acceptance and mindfulness, and fear of emotions will be investigated as process variables (or emotional regulation skills), targeted through the content of the program.

**Coping skills.**

Coping refers to an individual’s efforts to manage his/her relations with an environment that taxes his/her ability to respond (Lazarus & Folkman, 1984). There is evidence to suggest that the way adolescents cope with the external environment, stressors and resultant negative emotions has an effect on the development of clinical symptomatology (Seiffge-Krenke, 2000). In general, coping processes among young people vary to some extent (Murberg & Bru, 2005). Some coping styles may mitigate
the associations between ongoing stressors and clinical symptomatology by regulating the negative emotions associated with stress, improving problem solving, and therefore reducing the potential distressing effects that can occur from psychosocial stress. Alternatively, other coping styles may exacerbate the negative effects and themselves become risk factors for subsequent adjustment (Herman-Stabl, Stemmler, & Petersen, 1995; Herman-Stahl & Petersen, 1996). In line with this, Seiffge-Krenke (1998) highlighted a conceptual distinction between functional and dysfunctional coping styles. Functional coping involves efforts to manage a problem by actively seeking support, undertaking concrete actions to solve a problem, or reflecting on possible solutions. By contrast, dysfunctional coping refers to efforts to withdraw from or deny the existence of a stressor, avoiding seeking solutions, and essentially results in the problem not being solved or alleviated in the particular moment. Similarly, Roth and Cohen (1986) have distinguished between approach-orientated coping and avoidant coping.

Evidence from the literature on coping in adolescence, indicates that approaching or engaging with the stressor is associated with better adjustment (e.g., Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Seiffge-Krenke, 2000). By contrast, depressive symptomatology is associated with the use of avoidance and rumination, as well as limited use of active strategies, such as support seeking, problem solving, and cognitive restructuring (e.g., Herman-Stabl et al., 1995; Herman-Stahl & Petersen, 1996). Moreover, studies have shown that in non-clinical samples approach oriented coping was the most frequently observed mode of coping (Compas et al., 2001), and withdrawal and avoidant coping was utilised twice as often
by participants in clinical samples than by those in non-clinical populations, regardless of the stressor involved (Seiffge-Krenke, 2000).

Additional evidence regarding the long term negative consequences of the utilisation of avoidant coping was found in a study conducted by Seiffge-Krenke and Klessinger (2000). In this study 194 adolescents (from a community sample) participated in four annual assessments, where coping styles and depressive symptoms were measured. Longitudinal analyses revealed enduring differences in depressive symptoms, depending on coping style. Data collected at time three and four showed adolescents with an approach-orientated coping style reported the fewest depressive symptoms, while avoidant copers reported the most symptoms. Furthermore, it was found that all adolescents employing avoidant coping style at some point, independent of whether the participants demonstrated high avoidant coping at the beginning of the study, changed to avoidant coping after one year, or consistently displayed high avoidant coping at time one and time two, demonstrated the highest levels of depressive symptoms. This finding suggests that the effect of avoidant coping was persistent and impacted on depressive symptoms even at time three and time four (namely up to two years later). This outcome was further substantiated through multiple regression analyses. Avoidant coping recorded at earlier times consistently predicted future depressive symptoms.

Based on the findings outlined above, in addition to the assertion by Aldo and colleagues (2010) that reappraisal and problem solving have been identified as adaptive
strategies protective against psychopathology while behavioural avoidance is identified as a risk factor, it is argued that the measurement of coping skills in the current study is warranted. Session content in the program would also suggest that measurement of coping skills is indicated (see Table 2 and Appendix A for the intervention protocol) especially given the program’s intentions to assist participants to develop skills in problem-solving as well as reappraisal.

**Acceptance and mindfulness.**

Contemporary research suggests that acceptance- and mindfulness-based practices are increasingly featuring in psychotherapeutic interventions as a way of fostering emotion regulation skills and cultivating well-being (Hayes et al., 1999; Linehan, 1993; Segal, Williams, & Teasdale, 2002). Concomitantly, the literature supporting the efficacy of these interventions is rapidly expanding. The dominant approaches or treatment modalities utilising acceptance and mindfulness-based practice include Acceptance and Commitment therapy (Hayes et al., 1999), Dialectical Behaviour therapy (Linehan, 1993), Mindfulness-Based Stress Reduction (Kabat-Zinn, 1990) and Mindfulness-Based Cognitive therapy (Segal et al., 2002). Mindfulness can be defined as the process of paying attention (being mindful) that is intentional, present-moment focused, and maintained with a non-judgemental attitude (Kabat-Zinn, 1994). Acceptance is a term used to denote the willingness and openness to experience aversive or unwanted private events (e.g., body sensations, thoughts, feelings, memories) as they are, without struggle or defence (Hayes et al., 1999) and, as such, acceptance is an opposite process to experiential avoidance.
The practice of mindfulness heightens the awareness of the mental processes that contribute to emotional dysregulation and increases the individual’s psychological flexibility when strong emotions are elicited (Shrout & Bolger, 2002). In this way, mindfulness provides a way of working with emotions as they occur. More specifically, mindfulness facilitates the learning about emotions, as well as fostering training in noticing and observing what is occurring in the present moment. Identifying and attending non-judgementally to emotions can mitigate the individual’s emotional reactivity (Broderick, 2009). This practice offers the opportunity to increase psychological flexibility (the ability to utilise a deliberate repertoire of emotional responding) in the presence of uncomfortable or unwanted feelings that otherwise might provoke habitual responding that may be maladaptive (e.g., ‘acting out’ by taking drugs or engaging in aggressive behaviour). Thus overall, practising mindfulness can be considered an adaptive emotion regulation strategy, as it can assist individuals to recognise emotions, be aware of ruminative or maladaptive thoughts, minimise avoidant behaviours, and self-monitor one’s coping strategies (Roemer & Orsillo, 2002).

The vast majority of research that supports the benefits of mindfulness has been conducted with adult populations. In a series of correlational, quasi-experimental, and laboratory studies conducted by Brown and Ryan (2003), it was found that mindfulness (as measured by the Mindfulness Attention Awareness Scale) was positively associated with several dimensions of well-being (e.g., optimism, positive affect, and self-actualisation) and negatively related to indices of psychological difficulties (e.g., negative affect, depression, anxiety and rumination). Additional support for the benefits
of mindfulness can be seen in Baer’s (2003) meta-analysis of 21 studies considered to be of adequate quality that examined mindfulness training as a clinical intervention for conditions including chronic pain, anxiety and depression. Results from the analysis revealed a large mean post-treatment effect size (Cohen’s $d = .74$, $SD = .39$) and a medium effect size at follow-up (Cohen’s $d = .59$, $SD = .41$) and it was concluded that mindfulness-based interventions may have a positive impact on participants experiencing mild to moderate psychological distress in that their symptoms reduce to normal, or close to normal range.

Mindfulness as a construct can be considered opposite to the process of rumination. Rumination is the term used to describe a type of repetitive thought, characterised by recurrent, thematic thinking about the self, prompted by an external event (e.g., threats, losses or injustices to the self) or unwanted internal private events (e.g., negative emotion, bodily sensations) (Jones, Papadakis, Hogan, & Strauman, 2009). Thus, the process of focusing on past events or future worries inherent to rumination is juxtaposed to the present-moment focus of mindfulness. As such, the cultivation of mindfulness skills is likely to decrease an individual’s engagement in rumination. This is an important outcome of mindfulness practice, given the assertion by Aldo and colleagues (2010) that rumination is a maladaptive emotion regulation strategy and is a risk factor for the development of psychopathology. The negative impact pertaining to the use of rumination has been documented in studies showing that individuals who engage in rumination are ineffective in proactive interpersonal problem-solving and demonstrate an inflexible, rigid cognitive style on traditional
neuropsychological tests of novel problem solving (Davis & Nolen-Hoeksema, 2000; Watkins & Baracaia, 2002). Findings from clinical research have further highlighted the link between rumination and symptomatology by demonstrating that rumination in response to negative moods is associated with maintenance of depression and exacerbated sad affect (Lyubomirsky & Nolen-Hoeksema, 1993; Rimes & Watkins, 2005). In addition, rumination has also been shown to increase the risk of developing depressive episodes in healthy participants who were tracked prospectively (Robinson & Alloy, 2003), which has consistently been associated with psychopathology in youth.

Empirical evidence to support the theorised relationship between mindfulness and rumination was demonstrated in a randomised controlled trial by Jain and colleagues (2007). Participants included medical and nursing students (mean age of 25, with an age range of 18 to 61). Results of this study indicated that students who participated in four weeks of mindfulness meditation training, relative to somatic relaxation training or a non-intervention control group, demonstrated reduced psychological distress, which was partially mediated by reducing rumination (evident through hierarchical linear modelling). Additional evidence for the positive therapeutic impact of mindfulness on rumination, was highlighted in study conducted by Ramel, Goldin, Carmona and McQuaid (2004). In this study, the impact of an eight week course in mindfulness-based stress reduction on participants who met lifetime criteria for a mood disorder, as compared to a matched waitlist sample was investigated. Results indicated that the intervention significantly reduced ruminative thinking, and
this was found even after controlling for reductions in affective symptoms and dysfunctional beliefs.

Similar to the domain of mindfulness research, investigation relevant to acceptance as a regulatory strategy has also been conducted primarily within adult populations, with evidence suggesting that utilising this adaptive regulatory strategy promotes good outcomes (Hayes et al., 1999; Heffner, Eifert, Parker, Hernandez, & Sperry, 2003). Furthermore, low levels of acceptance have been associated with clinical disorder, including generalised anxiety disorder (Roemer, Orsillo, & Salter-Pedneault, 2008), panic disorder (Tull & Roemer, 2007), eating disorders (Polivy & Herman, 2002) and borderline personality disorder (Gratz, Rosenthal, Tull, & Lejuez, 2006; Morton et al., 2012). As mentioned previously, acceptance involves openness to internal experiences and willingness to remain in contact with those experiences, despite them being perceived as uncomfortable or unwanted. Acceptance, therefore, is considered opposite to experiential avoidance or suppression, given that these processes promote pushing unwanted experiences away (Campbell-Sills, Barlow, Brown, & Hofmann, 2006b). More specifically, suppression and avoidance involve attempts to reduce any of the three components of emotional responding: behaviour, subjective experience, and physiological arousal, subsequent to elicitation (Liverant, Brown, Barlow, & Roemer, 2008).

The relationship between the use of acceptance as an adaptive emotion regulation strategy, in comparison to the use of the maladaptive strategies of suppression
and avoidance has been a focus of research more recently. In particular, research that has been conducted with clinical populations has begun to elucidate the relationships between these process and symptomatology. For example, studies that have examined the effects of acceptance and suppression on panic disorder have found that acceptance may be a useful intervention for reducing subjective anxiety and avoidance in this population (e.g., Eifert & Heffner, 2003; Feldner, Zvolensky, Eifert, & Spira, 2003; Levitt, Brown, Orsillo, & Barlow, 2004). A study conducted by Levitt and colleagues (2004) examined the effects of acceptance versus suppression of emotions and thoughts in a clinical sample during an aversive interoceptive task, a carbon dioxide challenge, that involved administering carbon dioxide enriched air for 15 minutes (in order to produce symptoms of panic disorder). Results indicated that the use of suppression was ineffective for the reduction of panic symptoms and, instead, resulted in paradoxical increases in anxiety and distress. Alternatively, acceptance was associated with less fear, catastrophic thoughts, and avoidance behaviour.

In experimental research on the consequences of emotional acceptance, it has been shown that acceptance is associated with experiencing less fear, catastrophic thoughts, avoidance behaviour, and better recovery from negative affect (i.e., displaying less negative affect during the recovery period post exposure to emotion-provoking stimuli), as compared to suppression (Campbell-Sills, Barlow, Brown, & Hoffman, 2006a; Campbell-Sills et al., 2006b). The negative impact of avoidance and suppression have similarly been demonstrated by numerous other studies investigating the use of these techniques within various clinical and non-clinical populations, indicating that
efforts to control, suppress or avoid unwanted internal experiences result in paradoxical effects, increasing the frequency, severity, and accessibility of these experiences (Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Salters-Pedneault et al., 2004).

The findings outlined above, therefore, suggest that the processes influenced by acceptance and mindfulness-based practice constitute aspects of adaptive and maladaptive emotion regulation strategies (i.e., acceptance, rumination, avoidance and suppression) identified as risk and protective factors associated with the development of clinical disorder (Aldo et al., 2010). Adding further support to this notion is the empirical evidence derived from research demonstrating that improvements in emotion regulation have been reported following several brief acceptance- and mindfulness-based interventions (Gratz & Gunderson, 2006; Leahey, Crowther, & Irwin, 2008; Morton et al., 2012). In one example, Leahey et al. (2008) investigated a 10-week mindfulness-based, cognitive-behavioural group intervention designed to decrease binge eating and associated emotional eating, as well as enhance well-being and post surgical adjustment in bariatric surgery patients. Program content focused on increasing awareness of eating triggers and eating patterns (including the identification of internal experiences that precipitate binge eating), promoting mindful eating and mindfulness of emotions, and teaching adaptive emotion regulation skills. Despite the study comprising a relatively small sized clinical trial, participants indicated improvements in both binge eating (binge eating was decreased from clinical to non-clinical levels) and emotion regulation (improvement was recorded on all dimensions of emotion regulation
difficulties, as measured by the Difficulties in Emotion Regulation Scale) at post-intervention.

In another example, a study conducted by Gratz and Gunderson (2006) demonstrated clinically significant improvements in emotion regulation subsequent to participation in a 14-week, acceptance-based, group therapy program. The program targeted women who were diagnosed with borderline personality disorder and who engaged in deliberate self-harm. Results from the randomised trial indicated significant between group differences on all measures at post-treatment (variables included emotional dysregulation, emotional avoidance, frequency of self-harm, severity of borderline personality disorder symptoms, and severity of depression, anxiety and stress symptoms), with those participants who received the group therapy, in addition to their regular outpatient treatment, evidencing greater improvements.

Given that acceptance and mindfulness-based approaches to psychological intervention have become more popular only recently, most of the research investigating these processes has been conducted within adult populations, as outlined above. However, given that the current program utilises these strategies in an intervention with an adolescent population, it is important to pay attention to the comparatively sparse literature in this area involving adolescents. Research with youth has included acceptance- and mindfulness-based treatments that have emerged from Acceptance and Commitment therapy; Dialectical Behavioural therapy for adolescents, Mindfulness-Based Cognitive therapy for children, and Mindfulness-Based Stress reduction treatment
approaches (Burke, 2010). It is important to note that most studies in this area have significant limitations, including non-randomised designs and insufficient sample sizes (Biegel, Brown, Shapiro, & Schubert, 2009; Burke, 2010), with the majority of this research comprising outcome studies only. Thus, even less is known about the mechanisms of change supporting mindfulness-based intervention approaches (Twohig, Field, Armstrong, & Dahl, 2010). Despite this, there is some evidence to suggest that acceptance- and mindfulness-based interventions with youth are feasible and preliminarily positive, justifying further evaluation (Biegel et al., 2009; Burke, 2010; Hayes et al., 2010). A few examples of the more rigorous studies that have been conducted to date are discussed below.

The first controlled trial investigating a mindfulness-based intervention that was reasonably sound methodologically was conducted by Biegel and colleagues (2009), with the inclusion of blind clinician ratings and the collection of follow-up data (thus facilitating initial examination of maintenance of changes). The study investigated the impact of a mindfulness-based stress reduction intervention within a clinical population. In this randomised control trial, participants comprised adolescents (aged 14-18 years) with heterogeneous diagnoses in an outpatient psychiatric facility. The wait-list control group received treatment as usual, with the intervention group participating in an eight-week, modified, mindfulness-based stress reduction program, in addition to treatment as usual. Relative to control participants, those receiving the additional program self-reported reduced symptoms of stress, anxiety, depression, and somatic distress, but increased self-esteem and sleep quality, with similar results at three-month follow-up.
Furthermore, clinical measures of mental health, conducted by clinicians blind to treatment conditions, revealed significant improvement in the intervention group as compared to the control group, and at follow-up.

Another randomised control trial evaluated the effectiveness of exposure and acceptance strategies to improve functioning and quality of life in longstanding paediatric pain. This study conducted by Wicksell, Melin, Lekander and Olsson (2009) recruited participants who were referred to a pain treatment service and were between 10 and 18 years of age. The effectiveness of the acceptance- and commitment-based therapy treatment protocol was compared to a multidisciplinary treatment approach. Results indicated that adolescents treated with the acceptance- and commitment-based therapy approach demonstrated significant improvements in functional ability, pain intensity, and pain-related discomfort, and further reported less catastrophising and less perceived pain. A further pilot study focusing on Acceptance and Commitment Therapy with youth diagnosed with depression was conducted by Hayes, Boyd and Sewell (2011). Participants in this study were between the ages of 12 and 18 years and were referred to a public child and adolescent psychiatric service. Findings suggested that participants who were randomly assigned to the Acceptance and Commitment Therapy intervention, as compared to the treatment as usual condition, demonstrated greater improvement on depressive symptoms, as well as clinically reliable change.

Overall, given that (a) acceptance and mindfulness-based practice is linked to various processes that form components of adaptive and maladaptive emotion regulation
(i.e., acceptance, rumination, avoidance and suppression) that are recognised to be established risk and protective factors associated with the development of clinical disorder (Aldo et al., 2010) and (b) the session content of the Life Skills program that is intended to cultivate these adaptive processes in participants, the measurement of these processes in the current study appears justified. Furthermore, the preliminary evidence suggesting that acceptance and mindfulness-based interventions with youth are beneficial has been derived from studies that have focused on outcome data. Thus the current study makes a unique contribution to the literature through the measurement of these process variables.

**Fear of emotions.**

The concept of having fear of one’s emotions can be considered a particular dimension or facet of maladaptive regulation, given its impact on the experiencing and processing of emotion. The current thesis argues that the inappropriate reactivity of having a fear of emotions through being unable to accept and understand one’s emotional experiences may lead to the use of disadvantageous emotion regulation strategies, such as suppression and avoidance, that increase the likelihood of disordered clinical outcomes. In other words, it is the individual’s experience of emotion and how they proceed to process this experience that affects the course of emotional responding, which in itself may influence possible trajectories towards clinical disorder (Craske & Barlow, 2008; Forbes et al., 2008). In this thesis it is purported that maladaptive outcomes are not just associated with the deficiencies in the ability to modulate strong emotions, but also deficiencies in the capacity to experience subjectively the full range
of emotions and respond appropriately, flexibly and adaptively (Cole et al., 2004; Gratz & Roemer, 2004; Hayes et al., 2006).

The acknowledgment that emotion dysregulation may also constitute deficiencies in the processing and experiencing of emotions is guided by research pertaining to the fear of anxiety. For example, researchers have asserted that panic disorder is maintained by the fear of the loss of control over one’s affective and behavioural responses when experiencing fear-related sensations (e.g., Craske & Barlow, 2008). The experience of an initial panic attack is associated with aversive emotional, cognitive and behavioural experiences, such as, heightened anxiety, embarrassment and threat-laden thoughts. Thus, heightened anxiety and hypervigilance relating to bodily sensations or physiological responses are associated with panic attacks following this initial experience, as these fear-related physiological responses (e.g., increased heart rate) are paired with aversive outcomes. In this way, individuals become conditioned to fear the fear-related physiological response, which leads to the elicitation of a panic attack, and subsequently maintains the clinical presentation of this disorder (Bouton, Barlow, & Mineka, 2001). Similarly, with respect to generalised anxiety disorder, it is argued that individuals with this diagnosis perceive emotions as overwhelming and dangerous, thus leading to the utilisation of an excessive and inflexible use of various cognitive avoidance strategies (e.g., worry) to compensate for deficits in regulatory strategies associated with distressing emotional experiences (Mennin, Heimberg, Turk, & Fresco, 2002). In support of this notion, research employing structural equation modelling has shown that the fear of losing control over
emotions mediates the relationship between cognitive avoidance and generalised anxiety symptoms (Olatunji, Moretz, & Zlomke, 2010).

An expansion of this line of research extends to the study of the fear of other strong emotions that may contribute to psychopathology (Barlow, 1991; Williams, Chambless, & Aherns, 1997). Research has shown that fear of emotion has further been associated with separation anxiety disorder (Turk, Heimberg, Luterek, Mennin, & Fresco, 2005), post-traumatic stress disorder (Forbes et al., 2008; Price, Monson, Callahan, & Rodriguez, 2006), borderline personality disorder (Sauer & Baer, 2009; Yen, Zlotnicj, & Costello, 2002) and aggression (Jakupcak, 2003; Jakupcak, Tull, & Roemer, 2005).

Given the evidence outlined above for the association between fear of emotions and clinical disorder, this aspect of emotion regulation has been addressed within psychotherapy intervention, through the emphasis on the function of emotions. More specifically, there are several treatments that feature psychoeducation relating to the evolutionarily and adaptive nature of emotion, especially with regards to the function of promoting pertinent information about the environment that can be used to guide behaviour and inform an appropriate course of action (Gratz & Gunderson, 2006; Linehan, 1993; Roemer & Orsillo, 2005). Treatment consumers learn that connecting with and acting on the information and signals directed by their emotions in a functional way, facilitates more effective engagement with and reactions to their environment (Gratz & Tull, 2010). It is this endorsement with respect to the functionality of
emotions that will likely reduce the fear of experiencing emotions and, in turn, increase emotional acceptance.

Overall, the evidence suggests that fear of emotions is likely to result in the adoption of maladaptive emotion regulation strategies (such as avoidance and suppression). Given that an emphasis on the functionality of emotions is present within the Life Skills program, the measurement of the fear of emotions within the current thesis is appropriate. Furthermore, similar to the constructs of acceptance and mindfulness, most of the literature investigating this dimension of emotion regulation has been conducted within adult populations. As such, including the measurement of fear of emotions within the context of the current thesis will make a valuable and unique contribution to the study of emotion regulation in adolescence.

**Aims and Hypotheses of the Current Research**

The overall aim of the current research is to investigate the initiative directed by CAHS in an evaluation of the Life Skills Program. As discussed previously, the evaluation comprises two main parts. The first relates to accountability and program impact, and the second relates to knowledge generation.

The initial step in the evaluation process investigates whether the program was effective in achieving its intended outcomes. The findings derived from this group comparison analysis will have important implications regarding the continuation of the program, allocation of recourses, and restructuring within the CAHS service. Arguably,
the rationale for the provision of particular services must be founded in evidence-based practice. Therefore, the current research will investigate the impact of the Life Skills program on the emotional and behavioural functioning in adolescents in Year 8 (12-14 years of age).

Given that previous research trials have demonstrated support for the benefits of prevention programs in reducing established risk factors (namely, prevention of further manifestation of clinical symptomatology) (Durlak & Wells, 1997, 1998; Horowitz & Garber, 2006; Weersing & Weiz, 2002), it is hypothesised that participants assigned to receive the Life Skills program will experience significant reductions on measures of psychological indicators, including depression, internalising and externalising symptoms and (improvement of) self-esteem. Further to this, based on findings that suggest significant program intervention effects for the development and improvement of established protective factors (Broderick, 2009; Burke, 2010; Macklem, 2011), it is hypothesised that participants assigned to the Life Skills program will experience significant improvements on measures of process skills, including coping skills, acceptance and mindfulness and (a reduction of) fear of emotions, as compared to participants assigned to the control group.

The second part of the evaluation pertains to knowledge generation. The goal of this aspect of the evaluative process is to a) investigate whether any positive outcomes of group participation can be attributed to the ‘active ingredients’ of the intervention program, and b) inform theoretical hypotheses regarding the risk and protective factors
contributing to the development of psychopathology. This will be achieved in the current research project through the utilisation of mediation modelling. It is hypothesised that if psychological indicators (depression, internalising and externalising symptoms and low self-esteem) are manifestations of emotion dysregulation, then process skills or adaptive emotion regulation (coping skills, acceptance and mindfulness, and low fear of emotions) will be expected to mediate change in outcome in the potentially successful Life Skills program.
Chapter 3

Method

Participants

Prior to the commencement of the current research project, ethical approvals were obtained from three different human research ethics committees. These approvals included the Murdoch University Human Research Ethics Committee (reference: 2009/081), the North Metropolitan Area Mental Health Services Human Research Ethics Committee (reference: 09/04) and the Department of Education and Training (reference: D09/0233027).

Nine schools were approached and asked to participate in the study. Some of these schools were selected based on the pre-existing relationship between CAHS and the school, due to the nature of consultation within the catchment area. In order to maximise the variation of the socio-demographic profile of the sample, the additional schools that were asked to participate were selected on the basis of operating within suburbs that were known to differ geographically and socio-economically. Of the nine schools approached, six schools eventually participated in this study (overall response rate = 66.67%), with one of the schools running the group twice over two years. These schools were spread over the Perth metropolitan area. Two of the schools were located in the northern suburbs of Perth, one was located in the north west, one was located west of Perth, one of the schools was located in an inner southern suburb of Perth and one school was located in the southern suburbs of Perth. All six schools were public, government, co-educational schools, with three of the schools being located in areas
considered to be of middle to high socio-economic status, while the other three schools were located in areas considered to be of low to middle socio-economic status. The range of geographical locations and socio-economic status of the schools in the current study arguably assists with the generalisation of results.

Participants in this study consisted of 139 Year 8 students, aged between 12 and 14 years. Of these, 78 were assigned to the prevention group and 61 were assigned to the control group. Thirteen participants were excluded from the final sample due to the following reasons: five participants made the decision to withdraw their participation from the Life Skills Program and two participants moved schools prior to the completion of the program, resulting in seven participants being excluded from the final sample of the prevention group. Of the participants in the control group, six participants were not able to be included in the final sample as three participants moved schools and three participants were not available at the time of second administration of the questionnaire. Of the remaining 71 participants in the prevention group, 39 (54.9%) were male and 32 (45.1%) were female. Of the remaining 55 participants in the control group, 31 (56.4%) were male and 24 (43.6%) were female.

Materials

For the purposes of data collection, all instruments used in this study were combined to create one questionnaire package of 259 items, named the Life Skills Questionnaire Package (see Appendix B). This packaging allowed for maintenance of face validity and comprehensibility of the purpose of the questionnaires for the indicated
adolescent group. The questionnaire package included the Adolescent Coping Scale (ACS; Frydenberg & Lewis, 1993), the Modified Affective Control Scale for Adolescents- Revised (MACSA-R; Geddes & Dziurawiec, 2008), the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965), the Child Acceptance and Mindfulness Measure (CAMM; Greco & Baer, 2006), the Strengths and Difficulties Questionnaire (SDQ; Goodman et al., 1998) and the Children’s Depression Inventory (CDI; Kovacs, 1992).

**Process Measures**

**Adolescent Coping Scale (ACS).**

The current study utilised the shorter 18-item version of the Adolescent Coping Scale, which comprises 80 items (79 structured and one open-ended). In the longer version, 18 conceptually and empirically distinct coping strategies are assessed. The short version comprises 18 items from the long version (one item per scale). The authors of the ACS suggest that the short version has been demonstrated to be a useful indicator of a respondent’s performance on the long version; and, therefore, it can be used to obtain an overall picture when time does not permit the use of the longer instrument (Frydenberg & Lewis, 1993). The ACS is a self-report instrument that assesses general coping strategies used by the respondent. The response format is presented on a 5-point scale, ranging from “used often” to “never used”. The scale is broken down into three subscales that evaluate an adolescent’s capabilities for actively solving problems (productive coping), utilisation of social support for emotional and instrumental purposes (reference to other), and an inability to cope, including the
utilisation of avoidance strategies (non-productive coping). Higher scores on each subscale indicate more frequent use of this strategy. In the present sample, the Cronbach’s alpha coefficient was found to be .72 for the ‘Solving the Problem’ Scale, .39 for the ‘Reference to Others’ Scale and .69 for the ‘Non-Productive Coping Scale.’

**Modified Affective Control Scale for Adolescents-Revised (MACSA-Revised).**

This scale is a revised and shorter version of the Modified Affective Control Scale for Adolescents (MACS-A; Geddes, Dziurawiec, & Lee, 2007), designed to assess the fear of strong emotions in adolescents. The Affective Control Scale (ACS; Williams et al., 1997) was adapted to create the 41-item, MACS-A for youths, aged 12 to 17 years. Consistent with the ACS, the MACS-A gives the total Fear of Emotions score, which includes the four subscale scores measuring the fear of anxiety, fear of depression, fear of anger and fear of positive emotion. The MACS-A has been further refined to its current form, the 18-item MACSA-Revised, and generates a total Fear of Emotion Scale, a Fear of Anxiety, Fear of Depression and Fear of Anger subscale. Statistical analysis by Geddes et al., 2007, had revealed that, even though the total Fear of Emotion Scale and the Fear of Anxiety, Fear of Depression and Fear of Anger subscales were able to discriminate between clinical and non clinical samples, the Fear of Positive Emotion subscale did not and, thus, it was removed from the instrument. Similar to the MACS-A, items 2, 6, 9 and 16 of the MACSA-Revised are reverse scored. Responses are rated on a 7-point Likert scale ranging from 1 (very strongly disagree) to 7 (very strongly agree), with a neutral midpoint (neutral). The overall scale
score is computed as the mean of all responses, with a higher mean score indicating a
stronger fear of emotion. In the present sample, the Cronbach’s alpha coefficient was
found to be .91 for the total Fear of Emotion Scale, .87 for the Fear of Anxiety subscale,
.84 for the Fear of Depression subscale and .71 for the Fear of Anger subscale.

Child Acceptance and Mindfulness Measure (CAMM).

The Child Acceptance and Mindfulness Measure (CAMM) is a 25-item measure
designed to assess the extent to which children and adolescents observe internal
experiences (e.g., “I pay close attention to my thoughts”), act with awareness (e.g., “I
walk from class to class without noticing what I’m doing [reverse scored]), and accept
internal experiences without judgement (e.g., “I get upset with myself for having certain
thoughts” [reverse scored]). Respondents use a 5-point Likert scale to indicate the
degree to which the items on the measure reflect their experiences. After reverse-
scoring negatively worded items, scores are obtained by summing the items with higher
total scores, indicating greater levels of acceptance and mindfulness. Empirical analysis
has indicated that the CAMM demonstrates good internal consistency and concurrent
and divergent validity (Coyne, Cheron, & Ehrenreich, 2008). In the current study, this
scale had a Cronbach’s alpha coefficient of .70.

Psychological Indicator Measures

Rosenberg Self Esteem Scale (RSE).

The Rosenberg Self-Esteem Scale is the most widely used instrument of global
self-esteem, understood as a person’s overall evaluation of his or her worthiness as a
human being (Rosenberg, 1965). The RSE was originally developed to assess self-esteem among adolescents and is a 10-item self-report measure, with each statement relating to overall feelings of self worth and self acceptance. The 10 items are answered on a 4-point Likert scale, ranging from 0 (strongly agree) to 3 (strongly disagree). Scores between 16 and 25 are within the normal range; scores of 15 or below suggest low self-esteem. Empirical analysis has demonstrated good reliability for this scale (Blascovich & Tomaka, 1993) and, in the present sample, the Cronbach’s alpha coefficient was found to be .85.

**Strengths and Difficulties Questionnaire (SDQ).**

The SDQ is the mandatory measure used by the Child and Adolescent Mental Health Services in Western Australia, as directed by the Department of Health, to inform consumer outcomes. The questionnaire comprises 25 items that ask about different behavioural attributes, some positively worded and some negatively worded. All items are scored on a 3-point response scale of 0 (not true), 1 (somewhat true) and 2 (certainly true). Items are broken down into five subscales, each containing five items: Emotional Symptoms, Conduct Problems, Hyperactivity/Inattention, Peer Relationship Problems and Prosocial Behaviour. The scores on the first four subscales are added together to generate a Total Difficulties score, with higher scores reflecting a higher level of difficulty. A score of more than 15 is considered to be slightly raised and may be reflective of clinically significant problems, while a score of more than 20 is considered to be high and is reflective of a substantial risk of clinically significant problems. The SDQ is suitable for an age range of 4-16-year-olds and has been shown
to detect behavioural and emotional problems in Australian adolescents (Mathai, Anderson, & Bourne, 2002). There are two different versions of the questionnaire that can be completed by either teachers or parents and a third self-report version of the questionnaire is available for children aged 11 or above. The scale in parent and teacher informant form has been shown to have adequate reliability and validity (Goodman & Scott, 1999), as has the self-report format (Goodman, Meltzer, & Bailey, 2003). The current study utilised the self-report form only and the Cronbach’s alpha coefficient was found to be .71 for the Total Difficulties scale, .75 for the Emotional Symptoms subscale, .66 for the Conduct Problems subscale, .68 for the Hyperactivity/Inattention subscale, .65 for the Peer Relationship Problems subscale and .67 for the Prosocial subscale.

**The Children’s Depression Inventory (CDI).**

The Children’s Depression Inventory is a 27-item, self-rated, symptom-oriented instrument for assessing depression in children, aged 7-17 years. It is designed to quantitatively measure the following symptoms of depression: negative mood, anhedonia, interpersonal difficulties, negative self-esteem, and ineffectiveness. Each question on the CDI asks respondents to choose one statement among three that best describes how they have been feeling over the past two weeks (e.g., “I am sad once in a while;” “I am sad many times;” “I am sad all the time”). Responses are scored on a scale from zero to two, with two representing the severe form of a depressive symptom and zero representing the absence of that symptom. Total CDI scores range between zero and 54. According to Kovacs (1992), a cut-off score of 13 is indicated to minimise
false negatives and is recommended for use with a clinical sample; and a higher cut-off score of 19 minimises false positives and can be used in a nonclinical sample. Research psychologists have rated the CDI as having adequate to excellent psychometric properties (Fleming Saylor, Finch, Spirito, & Bennett, 1984). In the present sample Cronbach’s alpha coefficient was found to be .91 for the Total Depression scale, .79 for the Negative Mood subscale, .72 for the Anhedonia subscale, .54 for the Interpersonal Difficulties subscale, .79 for the Negative Self-Esteem subscale and .65 for the Ineffectiveness subscale.

Procedure

Data collection for the current project occurred over a two-year period. For the schools involved that were recruited based on the pre-existing relationship between them and the North Metropolitan CAHS, initial contact was made via CAHS clinicians with the school psychologist. With the additional schools, initial contact was made by the current researcher via email, with follow-up phone calls to the school principal. Information was provided pertaining to the nature of the research and school principals were invited to sign a consent form (see Appendix C) to indicate their interest and provide permission for the program to be run at their school. Once consent was obtained from the school principal, liaison with the school was then facilitated through the school psychologist. Meetings were held between the researcher, school psychologists and various additional school personnel, depending on the school (e.g., Year 8 co-ordinators, school principals, student services co-ordinators, school chaplains), with the aim of discussing the pragmatics of running the program within
their school and providing information on details of what the program would involve. School psychologists were then responsible for identifying the appropriate students to participate in the research, based on established inclusion and exclusion criteria (see Table 3). Further consultation and discussion between school psychologists, the researcher or CAHS clinician assisted in the process of identifying potential participants who were considered appropriate (based on the inclusion and exclusion criteria).

Table 3

*Inclusion and Exclusion Criteria used for Identifying Appropriate Participants*

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students experiencing some emotional or behavioural difficulties</td>
<td>Students who are experiencing emotional and behavioural symptoms severe enough to meet criteria for a CAHS referral</td>
</tr>
<tr>
<td>Students demonstrating poor coping or experiencing high levels of stress</td>
<td>Students who are considered to be high risk with regards to suicide or self-harm</td>
</tr>
<tr>
<td>Students who are in regular contact with the school psychologist or student support service staff</td>
<td>Students who may already be engaged with other mental health services, or are receiving some form of mental health treatment</td>
</tr>
<tr>
<td>Students who are motivated and willing to attend</td>
<td>Students who are engaged in other similar school programs</td>
</tr>
</tbody>
</table>

Once participants were identified by the school psychologist, they were offered the opportunity to participate in the Life Skills group and research project directly via these personnel. Students were randomly assigned to experimental or control groups, with the exception of some of the students where placement in the experimental group may have been detrimental to the therapeutic environment of the group. For example, in
a few instances school psychologists noted ongoing conflictual relationships between two students and, thus, a decision was made to assign one of the students to the control group, with the aim of ameliorating potential disruptions or confounds to the effectiveness of the group. It is important to note that when considering research in school settings, it is challenging to conduct research with randomised controlled trials, which is considered the “gold standard” (Christenson, Carlson, & Valdez, 2002). It is argued that, in applied research, the realities of school-life do not fit tightly-controlled research designs, and thus quasi-experimental designs are used by researchers, given that randomisation is not always possible (Macklem, 2008). Instead of randomly assigning students in the strictest sense, to either intervention group or control group, students are compared to similar students; however, participating in each group is predetermined. The main concern with this approach is that matching participants likely increases the chance of systematic differences between the two groups on initial pre-test scores, thus confounding results. The current study addresses this issue in the results section, where MANOVA were conducted to test for comparability between the prevention and control groups on all pre-treatment variables prior to further analysis.

Two separate information and consent forms that briefly described the study were distributed to both participants (see Appendix D and Appendix E) and their parents or guardians (see Appendix F and Appendix G). Participants and their parents or guardians were informed about the voluntary and confidential nature of their participation in the study. They were also assured that they could decide to withdraw from the study at any time without prejudice or discrimination to themselves, their
family or their school. Participants and their parents or guardians were then invited to sign the consent form and participants were included once consent had been obtained from both parties.

The Life Skills Program was run weekly, for the duration of one class period (approximately one hour) over the course of a school term of approximately 10 weeks. In order to preserve the program’s integrity, the group was run during class time and not during out of school hours when it might have been less likely for students to attend group sessions, as they might have had competing demands on their time. Group sessions were run on a consistent day each week, and schools were given two options with regards to session times: 1) group sessions could be consistently run during the same time, week to week, or 2) group session times could vary week to week to ensure students were not missing the same school subject scheduled in their timetable over the course of the term. Two of the schools decided to take the first option, while the remaining four schools decided to take the second option.

The school term in which the group was run, the number of participants taking part in the Life Skills program, and the personnel involved in co-facilitating each group varied between schools (see Table 4). In the school that ran the group twice over two years, the same school staff members were involved in the groups, in order to reduce variability in co-facilitators as much as possible. Similarly, one of the CAHS clinicians
<table>
<thead>
<tr>
<th>Year and School Term</th>
<th>Number of Participants in Co-Facilitating Each Group</th>
<th>Personnel Involved in Co-Facilitating Each Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1, Year 1: Term 1</td>
<td>12</td>
<td>School Psychologist, CAHS Clinician (Clinical Psychologist Registrar)*, School Psychologist</td>
</tr>
<tr>
<td>School 1, Year 2: Term 2</td>
<td>11</td>
<td>School Psychologist, CAHS Clinician (Senior Social Worker), CAHS Clinician (Clinical Psychologist Registrar)*</td>
</tr>
<tr>
<td>School 2, Year 1: Term 2</td>
<td>7</td>
<td>School Psychologist, CAHS Clinician (Senior Social Worker)</td>
</tr>
<tr>
<td>School 2, Year 2: Term 3</td>
<td>5</td>
<td>School Psychologist, CAHS Clinician (Clinical Psychologist Registrar)*, Current Author (Registered Psychologist / Clinical Psychologist Trainee)</td>
</tr>
<tr>
<td>School 3, Year 1: Term 4</td>
<td>11</td>
<td>School Psychologist, CAHS Clinician (Clinical Psychologist Registrar)*, Current Author (Registered Psychologist / Clinical Psychologist Trainee)</td>
</tr>
<tr>
<td>School 4, Year 2: Term 3</td>
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<td>School Psychologist, CAHS Clinician (Clinical Psychologist Registrar)*, Current Author (Registered Psychologist / Clinical Psychologist Trainee)</td>
</tr>
<tr>
<td>School 5, Year 2: Term 3</td>
<td>11</td>
<td>School Psychologist, CAHS Clinician (Clinical Psychologist Registrar)*, Current Author (Registered Psychologist / Clinical Psychologist Trainee)</td>
</tr>
<tr>
<td>School 6, Year 2: Term 2</td>
<td>11</td>
<td>School Psychologist, CAHS Clinician (Clinical Psychologist Registrar)*, Current Author (Registered Psychologist / Clinical Psychologist Trainee)</td>
</tr>
<tr>
<td>School 6, Year 2: Term 2</td>
<td>11</td>
<td>School Psychologist, CAHS Clinician (Clinical Psychologist Registrar)*, Current Author (Registered Psychologist / Clinical Psychologist Trainee)</td>
</tr>
</tbody>
</table>

*Denotes this is the same person
participated in co-facilitating two different groups. In all of the groups, either the researcher or CAHS clinician took the ‘lead role’ in terms of presenting the material and facilitating the learning in the group, with school staff members taking a supportive role.

Questionnaires were administered pre- and post-intervention, with pre-testing typically occurring in the week prior to commencement of the group program and post-testing typically occurring in the week following cessation of the group program. If participants were not available during pre- or post-testing, they were tested as close to this time as possible. Participants completed questionnaires in small groups of no more than six participants (in most cases there were groups of four, but a few participants were tested individually if, for example, they were not available on other days of testing) and these groups were not separated in terms of their assignment to either the experimental or control groups. Participants were grouped together for the purposes of completing the questionnaire in a way that was most pragmatic, for example, if they were all attending the same class during the time of completion.

The researcher supervised the administration of the questionnaires in all participating schools, in order to ensure consistency, and administration was standardised across all schools. Participants were reminded of the consent forms they previously signed, the voluntary nature of the study and that they were free to withdraw their consent at any stage. Participants were given the following instructions in terms of
Participants were then given time to complete the questionnaire, which on average took 30 to 40 minutes for each student. When participants indicated they were finished, they were instructed to check the questionnaire to ensure they had not missed any items by mistake. Once they had completed this task, they were given an envelope to put their questionnaires in and seal. They were then asked to wait quietly until everyone in the room had finished.

Once all questionnaires had been completed, the researcher suggested to the participants that due to the sensitive nature of the questions asked, they may be feeling somewhat sad or upset upon reflection of their current thoughts and behaviours. They were then given the opportunity to discuss these feelings as a group, prior to returning to
class. Alternatively, they were advised that they could approach the researcher to discuss reactions privately, once everyone had returned to class. A few students chose to discuss their reactions to completing the questionnaires in the presence of the group and only one participant chose to discuss their feelings in private. In all instances these participants’ thoughts and feelings were validated by the researcher. All participants denied experiencing high levels of distress and agreed to seek support from their school psychologist later in the day if they noticed a deterioration in their mood and coping. Participants were rewarded for their completion of the questionnaires with two small chocolate bars at both time points, pre- and post-intervention.

Prior to data collection, each participant was assigned a specific identification code. These were marked on the bottom left hand corner of the questionnaire package, with the aim of assisting with the investigation of within-subject effects while also preserving confidentiality. Cross-referenced names and participant identification codes were available to members of the research team only.
Chapter 4

Results

Data Coding and Entry

Pre- and post-test data for each participant were entered consecutively into Statistical Package for Social Sciences (SPSS) version 17.0 for Macintosh. Analysis of Moment Structures (AMOS) version 17.0 was used to conduct path analysis. Prior to data analysis, a cross check of entry in the dataset with its corresponding questionnaire package was conducted. Relevant corrections to inaccurate data entry were made. In addition, examination of the descriptive statistics of the items was carried out using SPSS FREQUENCIES to ensure accuracy of data entry. Variables were labelled accordingly and reverse-worded items were recoded appropriately.

In response to missing items being detected through the process of data entry, a missing values analysis was conducted using SPSS MVA. Missing values were negligible on the majority of the items. Of the 259 items in the questionnaire package, seven items had more than 2% of responses missing, with one of the items having six out of 126 (4.8%) participants not responding to the question, two of the items having four out of 126 (3.2%) participants not responding to the question and four of the items having three out of 126 (2.4%) participants not responding. In addition, there was no observable systematic response pattern in the missing item data. Given that missing data were minimal and random, the expectation-maximisation (EM) algorithm was considered appropriate to replace missing values (Frydenberg & Lewis, 1993; Scheffer, 2002) and thus was used.
Assumptions Relevant to Analyses of Variance

The underlying assumptions relevant to analyses of variance were evaluated using SPSS. The data were screened for univariate outliers for the sample as a whole on each of the measures at the point of pre-intervention administration. Data collected at post-intervention were screened for univariate outliers on each of the measures within prevention and control groups. Inspection of the standardised values revealed two univariate outliers outside the criterion, which was set at 3.5 standard deviations from the overall mean. However, given the robustness of tests of Analysis of Variance, the outliers were retained on the basis of being too few in number to have a significant impact on subsequent analyses (Tabachnick & Fidell, 2001). No multivariate outliers were found in the data, supporting the assumption of multivariate normality. Furthermore, correlations between the dependent variables were not excessive, indicating multicollinearity was not a concern.

For the sample as a whole, the distributions of the measures were tested for normality at pre-test. At post-test the distributions were examined according to group. The Shapiro-Wilks tests, in combination with inspection of histograms, indicated departures from normality (positive and negative skewness, as well as positive and negative kurtosis) were present for most of the measures, varying between pre-testing and post-testing. Consequently, no single transformation could be applied to normalise the distribution of a measure and, thus, to maintain the conceptual integrity of each measure across both administrations, it was necessary to conduct the subsequent analysis on the untransformed data (Field, 2009).
Examination of all pairwise scatterplots to check for linearity was conducted for each of the measures at both pre-intervention and post-intervention administrations. Approximately linear relationships were indicated between each of the dependent variables, the covariates and dependent variable-covariate pairs. A significant Box’s M test indicated a possible violation of the assumption of homogeneity of variance-covariance matrices. Consequently, multivariate significance was evaluated using Pillai’s Trace instead of Wilks Lambda (Tabachnick & Fidell, 2001). In addition, the slopes of the regression lines were similar across groups, suggesting homogeneity of regression slopes across the prevention and control groups. The resulting data set was thus considered suitable for analysis.

Hypothesis One: Group Comparisons

Data analytic strategy.

Multivariate Analysis of Variance (MANOVA) was conducted to test for comparability between the prevention and control groups on all of the pre-intervention variables. Next, hypothesis one was examined by using Multivariate Analysis of Covariance (MANCOVA) to test for significant differences when co-varying out pre-test scores on each of the measures. This type of analysis was chosen instead of Repeated Measures MANOVA as a result of recommendations by Tabachnick and Fidell (2001), who indicate that MANCOVA is preferred in situations with two time points, whereas Repeated Measures MANOVA is more appropriate for analyses with greater than two time points. It was predicted that there would be a significant group
effect, with the prevention group showing improved process and psychological indicator scores at post-intervention.

Process (Coping, Fear of Emotions and Acceptance and Mindfulness) and psychological indicator (Self-Esteem, Internalising and Externalising Symptoms and Depression) measures were analysed independently, resulting in two separate MANCOVAs being conducted. In the first instance (testing for significant differences between the prevention and control groups on process measures), experimental group (prevention and control) was entered into the MANCOVA as the independent variable (IV). Scores at pre-intervention administration of the ACS, MACS-R and CAMM were entered as covariates, and scores at post-intervention of the ACS, MACS-R and CAMM were entered as dependent variables (DVs). In the second instance (testing for significant differences between the prevention and control groups on psychological indicator measures), experimental group (prevention and control) was entered into the MANCOVA as the independent variable (IV). Scores at pre-intervention administration of the RSE, SDQ and CDI were entered as covariates, and scores at post-intervention of the RSE, SDQ and CDI were entered as dependent variables (DVs).

Pre-treatment comparisons.

MANOVA was conducted to test for comparability between the prevention and control groups on all the pre-treatment variables. A non-significant MANOVA, $F(1,124) = 1.09, p = .371$, partial $\eta^2 = .043$ indicated the absence of any group differences on overall process skills at pre-intervention. Similarly, MANOVA revealed
no significant group differences on overall psychological indicator measures, $F(1, 24) = 2.42, p = .069$, partial $\eta^2 = .056$ at pre-intervention.

**Sample characteristics.**

Given that there were no statistically significant group (prevention or control) differences in the sample as a whole at pre-test, data were collapsed into a single sample, with the aim of describing the current sample in terms of reference to a clinical or non-clinical population. Table 5 shows the combined descriptive statistics for all variables at pre-test.

In terms of clinical indicator variables (CIV), the means from the psychological indicator measures suggest that the current sample approached the clinical range of symptomatology, but was not within it (see Table 5). A score of 15 or below on the RSE indicates low self-esteem (Rosenberg, 1979); on the SDQ a score over 15 indicates possible clinically significant problems, while a score over 20 indicates a substantial risk of clinically significant problems (Goodman et al., 1998); and a score above 19 on the CDI can indicate depression in a non-clinical sample (Kovacs, 1992). Therefore, the means of the current sample suggest an appropriate sample for the purposes of an indicated prevention program.
Table 5

_Pre-test Means and Standard Deviations for Whole Sample_

<table>
<thead>
<tr>
<th>ACS</th>
<th>SolvProb</th>
<th>NonProd</th>
<th>RefOther</th>
<th>MACS-R</th>
<th>CAMM</th>
<th>RSE</th>
<th>SDQ</th>
<th>CDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>20.25</td>
<td>22.83</td>
<td>9.84</td>
<td>66.44</td>
<td>48.06</td>
<td>16.64</td>
<td>15.86</td>
<td>14.01</td>
</tr>
<tr>
<td>SD</td>
<td>3.87</td>
<td>5.59</td>
<td>2.73</td>
<td>18.45</td>
<td>9.82</td>
<td>5.57</td>
<td>6.73</td>
<td>9.74</td>
</tr>
<tr>
<td>CIV</td>
<td>&lt; 15</td>
<td>&gt; 20</td>
<td>&gt; 19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

_Note._ ACS = Adolescent Coping Scale; SolvProb = Adolescent Coping Scale Solving the Problem Coping; NonProd = Adolescent Coping Scale Non Productive Coping; RefOther = Adolescent Coping Scale Reference to Other Coping; MACS-R = Modified Affective Control Scale - Revised; CAMM = Child Acceptance and Mindfulness Measure; RSE = Rosenberg Self-Esteem Scale; SDQ = Strengths and Difficulties Questionnaire; CDI = Children’s Depression Inventory; CIV = Clinical Indicator Variables

**Analysis for intervention effects.**

Means and standard deviations for all the dependent variables on both testing occasions are presented in Table 6. For some variable measures (NonProd, MACS-R, SDQ and CDI), a decrease in scores indicates improvement of skills and symptoms, while for the remaining measures (SolvProb, RefOther, CAMM and RSE), an increase in scores indicates improvement. There appeared to be an improvement between pre-intervention and post-intervention on the majority of the measures for the intervention group. MANCOVA was used to test whether or not, after accounting for the effects of pre-intervention scores, there was a statistically significant effect of participation in the Life Skills Program on process and psychological indicator variables at post-intervention. Pre-intervention scores were used as covariates.
Table 6: Means and Standard Deviations for the Variable Measures by Experimental Group

<table>
<thead>
<tr>
<th>Measure</th>
<th>Prevention Group Pre Mean (SD)</th>
<th>Prevention Group Post Mean (SD)</th>
<th>Control Group Pre Mean (SD)</th>
<th>Control Group Post Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACS SolvProb</td>
<td>19.73 (3.74)</td>
<td>21.06 (3.58)</td>
<td>20.91 (3.95)</td>
<td>20.33 (4.24)</td>
</tr>
<tr>
<td>NonProd</td>
<td>23.32 (5.26)</td>
<td>22.42 (4.64)</td>
<td>22.20 (5.98)</td>
<td>22.44 (5.90)</td>
</tr>
<tr>
<td>RefOther</td>
<td>10.13 (2.95)</td>
<td>10.80 (2.87)</td>
<td>9.47 (2.39)</td>
<td>10.02 (2.63)</td>
</tr>
<tr>
<td>MACS-R</td>
<td>68.01 (18.10)</td>
<td>63.77 (14.01)</td>
<td>64.42 (18.86)</td>
<td>64.13 (19.03)</td>
</tr>
<tr>
<td>FearAnxiety</td>
<td>42.22 (11.59)</td>
<td>39.33 (8.60)</td>
<td>39.60 (11.39)</td>
<td>40.24 (10.88)</td>
</tr>
<tr>
<td>FearDepression</td>
<td>17.17 (6.69)</td>
<td>16.54 (5.81)</td>
<td>16.84 (6.61)</td>
<td>16.25 (7.15)</td>
</tr>
<tr>
<td>FearAnger</td>
<td>8.62 (2.63)</td>
<td>7.90 (2.16)</td>
<td>7.98 (3.05)</td>
<td>7.64 (2.68)</td>
</tr>
<tr>
<td>CAMM</td>
<td>47.45 (8.59)</td>
<td>49.21 (8.05)</td>
<td>48.84 (11.25)</td>
<td>46.13 (11.70)</td>
</tr>
<tr>
<td>RSE</td>
<td>15.76 (5.47)</td>
<td>16.82 (4.52)</td>
<td>17.78 (5.53)</td>
<td>17.65 (6.29)</td>
</tr>
<tr>
<td>SDQ Hyperact/Inatt</td>
<td>5.66 (2.32)</td>
<td>5.28 (2.27)</td>
<td>4.53 (2.11)</td>
<td>4.18 (2.25)</td>
</tr>
<tr>
<td>SDQ Conduct</td>
<td>2.74 (1.92)</td>
<td>2.49 (1.80)</td>
<td>2.27 (1.79)</td>
<td>2.27 (1.60)</td>
</tr>
<tr>
<td>SDQ Emotional Symptom</td>
<td>5.96 (2.84)</td>
<td>4.68 (2.52)</td>
<td>4.87 (3.16)</td>
<td>4.60 (3.24)</td>
</tr>
<tr>
<td>SDQ Peer Prob</td>
<td>2.82 (2.33)</td>
<td>2.63 (2.17)</td>
<td>2.49 (1.99)</td>
<td>2.51 (1.84)</td>
</tr>
<tr>
<td>SDQ Prosocial</td>
<td>7.34 (1.92)</td>
<td>7.46 (1.64)</td>
<td>7.16 (1.84)</td>
<td>7.24 (1.75)</td>
</tr>
<tr>
<td>CDI R</td>
<td>15.35 (9.78)</td>
<td>12.34 (7.42)</td>
<td>12.27 (7.47)</td>
<td>12.27 (7.47)</td>
</tr>
<tr>
<td>CDI SDQ</td>
<td>17.81 (6.14)</td>
<td>15.08 (5.47)</td>
<td>14.16 (5.33)</td>
<td>14.16 (5.33)</td>
</tr>
<tr>
<td>CDI RSE</td>
<td>4.94 (2.85)</td>
<td>4.72 (2.53)</td>
<td>4.52 (2.47)</td>
<td>4.52 (2.47)</td>
</tr>
<tr>
<td>CDI CAMM</td>
<td>3.49 (2.42)</td>
<td>3.26 (2.19)</td>
<td>3.18 (2.13)</td>
<td>3.18 (2.13)</td>
</tr>
</tbody>
</table>
| Note.                             | ACS = Adolescent Coping Scale; SolvProb = Adolescent Coping Scale Solving the Problem Coping; NonProd = Adolescent Coping Scale Non Productive Coping; RefOther = Adolescent Coping Scale Reference to Other Coping MACS-R = Revised Affective Control Scale - Revised; FearAnxiety = Fear of Anxiety subscale; FearDepression = Fear of Depression subscale; CAMM = Child Acceptance and Mindfulness Measure; RSE = Rosenberg Self Esteem Scale; SDQ = Strengths and Difficulties Questionnaire; Hyperact/Inatt = Hyperactivity / Inattention SDQ subscale; Conduct = Conduct Problems SDQ subscale; Emotional Symptom = Emotional Symptoms SDQ subscale; Peer Prob = Peer Problems SDQ subscale; Prosocial = Prosocial SDQ subscale; CDI = Children's Depression Inventory; Negative Mood = Negative Mood CDI subscale; Interpersonal Prob = Interpersonal Problems CDI subscale; Ineffectiveness = Ineffectiveness CDI subscale; Anhedonia = Anhedonia CDI subscale; NegSelf-Esteem = Negative Self-Esteem CDI subscale.
Process measures.

Controlling for pre-intervention process measure scores, there was a significant main effect for group at post-intervention on overall process measures, $F(1, 119) = 4.486, p = .001$, partial $\eta^2 = .163$. Follow-up univariate analyses of co-variance revealed a significant group effect for scores on the Solving the Problem Coping Scale, $F(1, 119) = 8.320, p = .005$, partial $\eta^2 = .065$ and the Child Acceptance and Mindfulness Measure, $F(1, 119) = 16.110, p = .000$, partial $\eta^2 = .119$. The remaining process variables individually showed no significant intervention effects: Non Productive Coping Scale $F(1, 119) = 2.289, p = .133$, partial $\eta^2 = .019$; Reference to Others Coping Scale $F(1, 119) = 1.252, p = .266$, partial $\eta^2 = .010$; Modified Affective Control Scale-Revised $F(1, 119) = 3.392, p = .068$, partial $\eta^2 = .028$.

Given that the $p$ value of the Modified Affective Control Scale-Revised was approaching significance, the three subscales of this measure were examined further to determine if there were any particular emotions (Fear of Depression, Fear of Anxiety and Fear of Anger) that were significantly affected by participation in the program when controlling for the effects of pre-intervention scores. Experimental group (prevention and control) was entered into the MANCOVA as the IV. Scores at post-intervention administration of the Fear of Depression subscale, Fear of Anxiety subscale and Fear of Anger subscale were entered as DVs, and scores at pre-intervention were entered as covariates.
Consistent with previous results, when controlling for pre-intervention subscale scores, there was a non-significant main effect for combined subscale scores, \( F(1, 121) = 2.210, \ p = .090 \), partial \( \eta^2 = .053 \). Follow-up univariate analyses of co-variance revealed a significant prevention group effect only for the Fear of Anxiety subscale \( F(1, 121) = 4.260, \ p = .041 \), partial \( \eta^2 = .034 \). The remaining subscales individually showed no significant intervention effects; Fear of Depression subscale \( F(1, 121) = .002, \ p = .963 \), partial \( \eta^2 = .000 \); Fear of Anger subscale \( F(1, 121) = .001, \ p = .971 \), partial \( \eta^2 = .000 \).

**Psychological indicator measures.**

Controlling for pre-intervention psychological indicator measure scores, there was a non-significant main effect for prevention group at post-intervention on psychological indicator measures, \( F(1, 119) = 1.936, \ p = .164 \), partial \( \eta^2 = .042 \). Follow-up univariate analyses of co-variance revealed a significant prevention group effect only for the Children’s Depression Inventory, \( F(1, 121) = 4.522, \ p = .035 \), partial \( \eta^2 = .036 \). The remaining psychological indicator variables individually showed no significant intervention effects; Rosenberg Self-Esteem Scale \( F(1, 121) = .380, \ p = .539 \), partial \( \eta^2 = .003 \); Strengths and Difficulties Questionnaire \( F(1, 121) = .337, \ p = .562 \), partial \( \eta^2 = .003 \).

The four composite subscale scores that make up the Strengths and Difficulties Questionnaire total problem score, in addition to the Prosocial subscale generated from the measure, were examined further to investigate whether participation in the Life
Skills program had a significant effect on the different individual ‘Strengths and Difficulties’ constructs. Theoretically, the Emotional Symptoms subscale, the Peer Relationship Problems subscale and the Prosocial Behaviour subscale would be expected to improve, given the nature of the intervention, while the Conduct Problems subscale and the Hyperactivity/Inattentive subscale would not. Experimental group (prevention and control) was entered into the MANCOVA as the IV. Scores at post-intervention administration of the Emotional Symptoms subscale, Conduct Problems subscale, Hyperactivity/Inattention subscale, Peer Relationship Problems subscale, Peer Relationship Problems subscale and the Prosocial Behaviour subscale were entered as DVs, and scores at pre-intervention were entered as co-variates.

Consistent with previous results, when controlling for pre-intervention subscale scores, there was a non significant main effect for combined SDQ subscale scores $F(1, 119) = 1.662, p = .149$, partial $\eta^2 = .067$. Follow-up univariate analyses of co-variance also revealed non-significant intervention effects for the individual subscale score:

- Emotional Symptoms subscale $F(1, 119) = 2.744, p = .100$, partial $\eta^2 = .023$;
- Conduct Problems subscale $F(1, 119) = .422, p = .517$, partial $\eta^2 = .004$;
- Hyperactivity/Inattention subscale $F(1, 119) = 1.461, p = .229$, partial $\eta^2 = .012$;
- Peer Relationship Problem subscale $F(1, 119) = .040, p = .842$, partial $\eta^2 = .000$ and the Prosocial Behaviour subscale $F(1, 119) = .516, p = .474$, partial $\eta^2 = .004$. 
Hypothesis Two: Mediation

The hypothesised model.

Using AMOS 17.0, Path Analysis was conducted to evaluate the fit of the proposed mediation model. The hypothesised model is presented in Figure 1. Rectangles represent observed variables and the absence of a line connecting variables implies lack of a hypothesised direct effect. Curvilinear lines represent covariance pathways. Relationships were examined between experimental group (prevention or control) and three process variables, including acceptance and mindfulness (total score), fear of emotions (total score) and productive coping (subscale score)- with each observed variable having its own exogenous predictor variable (variable measured at pre-intervention). Also in the analysis were psychological indicator variables, including depression (total score) and emotional symptoms (SDQ subscale score), with each of these observed variables having its own exogenous predictor variable (variable measured at pre-intervention).

Figure 1 illustrates the hypothesis that experimental group (prevention or control) directly affects depression and emotional symptoms. It is expected that an individual’s level of depression and emotional symptoms at pre-intervention will predict their level of depression and emotional symptoms at post-intervention. It is further hypothesised that the relationship between experimental group and psychological indicator variables (depression and emotional symptoms) is mediated by process variables (acceptance and mindfulness, fear of emotions and productive coping). It is expected that pre-intervention levels of acceptance and mindfulness, fear of emotions
and productive coping, as well as experimental group, will predict levels of acceptance and mindfulness, fear of emotions and productive coping at post-intervention (mediation variables). The covariance pathway between depression and emotional symptoms at post-intervention represents the shared variance between these variables that is not explained by their predictors in the hypothesised model. Psychological indicator and process variables at pre-testing were allowed to co-vary due to the conceptual overlap (Preacher & Hayes, 2008).

**Assumptions relevant to path analysis.**

The assumptions of multivariate normality and linearity were evaluated through AMOS. The assumptions for multivariate normality and normality of sampling distributions of the total and specific indirect effects were violated. It is argued, however, that in finite samples the total indirect effect is rarely normal (Preacher & Hayes, 2008). To address this problem, Shout and Bolger (2002) purport that bootstrapping methods can be extended to designs involving multiple mediation. Therefore, in relation to the current model, a robust rejection rate was obtained via the bootstrap approach by Bollen and Stine (1993). Using Mahalanobis distance and cases with the largest contribution to Mardia’s coefficient, one multivariate outlier was detected and deleted. The analysis was performed on 125 participants. There were no missing data. Table 7 shows the correlation matrix, means and standard deviations for all observed variables in the model.
Table 7

*Correlations, Means and Standard Deviations for Observed Variables*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acceptance &amp; Mindfulness (Post)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Fear of Emotion (Post)</td>
<td>-.45**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Productive Coping (Post)</td>
<td>.27**</td>
<td>-.38**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Depression (Post)</td>
<td>-.48**</td>
<td>.64**</td>
<td>-.47**</td>
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<td></td>
</tr>
<tr>
<td>5. Emotional Symptoms (Post)</td>
<td>-.56**</td>
<td>.73**</td>
<td>-.38**</td>
<td>.75**</td>
<td></td>
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</tbody>
</table>

Mean

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>47.86</td>
<td>63.67</td>
<td>20.73</td>
<td>12.44</td>
<td>4.61</td>
</tr>
</tbody>
</table>

Standard Deviation

<p>| | | | | |</p>
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<tbody>
<tr>
<td></td>
<td>9.93</td>
<td>16.13</td>
<td>3.89</td>
<td>8.30</td>
</tr>
</tbody>
</table>

** Denotes correlation is significant at the .01 level (2-tailed)

**Model estimation.**

A chi-square test was used to test the fit of the mediation model to the data. Lack of significance indicates an acceptable fit of the model to the data. While the chi-square estimate for the mediation model was significant (chi square = 74.581, df = 28, Bollen-Stine bootstrapped p < .001), it is argued that relying solely on this as a fit statistic can be problematic.

Kline (2005) argues that the chi square estimate is sensitive to both the size of the correlations and sample size and, thus, it may be unrealistic to expect a model to have perfect population fit. To reduce the sensitivity of the chi square estimate to sample size, some researchers divide its value by the degrees of freedom, which generally results in a lower value, called the normed chi-square. A commonly held cut-
off for the normed chi square ($\chi^2$/d.f.) statistic is six (Bollen, 1989). In the current model, the normed chi statistic was well below this (CMIN/DF = 2.66), indicating an acceptable fit of the model to the data when using this statistic.

Following the recommendations by Boomsma (2000) additional absolute and incremental indices were used to assess the adequacy of the postulated model. Absolute fit indices assess the difference between observed and model-specified covariances, whereas incremental fit indices assess the proportioned improvement in fit by comparing a target model with a more restricted, nested baseline model. The baseline model represents the worst possible fit, in which all measured variables are assumed mutually uncorrelated, providing an appropriate basis for defining a zero point. Hu and Bentler (1999) provide an overview of available indices, as well as guidelines for assessing the acceptable range for each index. In assessing overall model fit, it is purported that cutoff values close to .90 or lower for the Goodness of Fit Index (GFI), close to .95 or higher for the Comparative Index (CFI), and close to .06 or lower for the Root Mean Square Error of Approximation (RMSEA) are needed before a relative good fit can be supported between the observed data and hypothesised model. The alternative measures of fit indices in the current model, both absolute and incremental, yield acceptable values (GFI = .91 CFI = .95, RMSEA = .12). Despite the RMSEA value being higher than .06 in the current model, the lower bound confidence interval falls below .10, which Browne and Cudeck (1993) argue to be the cutoff score for an acceptable fit. In addition, Kline (2005) reports that an RMSEA value above .01 is more likely to occur in smaller samples. Overall, the combination of fit indices and the large
amount of variance in the psychological indicator endogenous variables (Depression and Emotional Symptoms) (See Figure 2) accounted for by the model, provide evidence that the Mediational model is well-fitting. Inspection of the standardised residual covariances provided no evidence of significant discrepancies between observed variables in the model, thus adding further support for the mediation model.

Direct effects.

Figure 2 depicts the pathway estimates for the mediation model. Psychological indicator variables (depression and emotional symptoms) and process variables (acceptance and mindfulness, fear of emotions and productive coping), measured at pre-testing, correlated significantly with each other. As expected, Figure 2 and Table 8 show that all psychological indicator and process variables measured at pre-testing significantly predicted psychological indicator and process measures at post-testing. There was a significant effect of group on both acceptance and mindfulness and productive coping, but not on fear of emotions (see Table 8). The direct effect of group on depression and emotional symptoms was not significant when the three process variables were included in the model. Fear of emotions and productive coping, but not acceptance and mindfulness, significantly predicted depression; and, acceptance and mindfulness, and fear of emotions, but not productive coping, significantly predicted emotional symptoms.
Figure 2. The structural equation model showing standardized pathway coefficients. Structural multiple correlations (R²) reporting variances explained in a model by its predictors is presented before each endogenous variable.
Table 8

Tests of Direct Pathway Coefficients in the Structural Model

<table>
<thead>
<tr>
<th>Pathway</th>
<th>B (Standard error)</th>
<th>p-value</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression Pre → Depression Post</td>
<td>.38 (.06)</td>
<td><em>p</em> &lt; .001</td>
<td>.44</td>
</tr>
<tr>
<td>Emotional Symptoms Pre → Emotional Symptoms Post</td>
<td>.40 (.05)</td>
<td><em>p</em> &lt; .001</td>
<td>.44</td>
</tr>
<tr>
<td>Acceptance &amp; Mindfulness Pre → Acceptance &amp; Mindfulness Post</td>
<td>.76 (.06)</td>
<td><em>p</em> &lt; .001</td>
<td>.75</td>
</tr>
<tr>
<td>Fear of Emotions Pre → Fear of Emotions Post</td>
<td>.63 (.06)</td>
<td><em>p</em> &lt; .001</td>
<td>.72</td>
</tr>
<tr>
<td>Productive Coping Pre → Productive Coping Post</td>
<td>.72 (.06)</td>
<td><em>p</em> &lt; .001</td>
<td>.70</td>
</tr>
<tr>
<td>Group → Acceptance and Mindfulness Post</td>
<td>4.2 (1.14)</td>
<td><em>p</em> &lt; .001</td>
<td>.21</td>
</tr>
<tr>
<td>Group → Fear of Emotions Post</td>
<td>-2.99 (2.03)</td>
<td>ns</td>
<td>-.09</td>
</tr>
<tr>
<td>Group → Productive Coping Post</td>
<td>1.50 (.50)</td>
<td><em>p</em> &lt; .05</td>
<td>.19</td>
</tr>
<tr>
<td>Group → Depression Post</td>
<td>-.79 (.96)</td>
<td>ns</td>
<td>-.05</td>
</tr>
<tr>
<td>Group → Emotional Symptoms Post</td>
<td>-.14 (.29)</td>
<td>ns</td>
<td>-.03</td>
</tr>
<tr>
<td>Acceptance and Mindfulness Post → Depression Post</td>
<td>-.08 (.05)</td>
<td>ns</td>
<td>-1.0</td>
</tr>
<tr>
<td>Acceptance and Mindfulness Post → Emotional Symptoms Post</td>
<td>-.06 (0.2)</td>
<td><em>p</em> &lt; .001</td>
<td>-.20</td>
</tr>
<tr>
<td>Fear of Emotions Post → Depression Post</td>
<td>.15 (.03)</td>
<td><em>p</em> &lt; .001</td>
<td>.23</td>
</tr>
<tr>
<td>Fear of Emotions Post → Emotional Symptoms Post</td>
<td>.06 (.01)</td>
<td><em>p</em> &lt; .001</td>
<td>.35</td>
</tr>
<tr>
<td>Productive Coping Post → Depression Post</td>
<td>-.39 (.13)</td>
<td><em>p</em> &lt; .05</td>
<td>-.19</td>
</tr>
<tr>
<td>Productive Coping Post → Emotional Symptoms Post</td>
<td>-.07 (.04)</td>
<td>ns</td>
<td>-.10</td>
</tr>
</tbody>
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Mediation.

Traditionally, researchers have tested mediation models according to the principles of Baron and Kenny (1986). This traditional testing method involves satisfying the requirements of four steps in order to establish mediation. More recently, however, Hayes (2009) contends that reporting the bootstrapping indirect effect provides sufficient evidence for mediation. Although some researchers will report both Baron and Kenny’s four steps approach and the bootstrapped effects in combination, Hayes (2009) purports that reporting both is redundant. Bootstrapping the product
coefficient of the mediated pathways produces both a 95% confidence interval estimate for the coefficient and an associated $p$-value that tests whether or not the indirect coefficient estimate differs significantly from zero. Simulation research has highlighted that bootstrapping is one of the more valid and powerful methods for testing intervening variable effects (Mackinnon, Lockwood, & Williams, 2004) and, therefore, Hayes (2009) argues this to be the method of choice.

According to Shrout and Bolger’s (2002) proposal, an indirect effect is significant at the .05 level if the 95% CI does not include zero. Using this criterion, the results from the bootstrap procedure indicated that the indirect effects on both depression and emotional symptoms were, although low, statistically significant for the combined effects of the three process variables. More specifically, the relation between group (prevention or control) and depression was significantly mediated by the combined effects of acceptance and mindfulness, fear of emotions and productive coping (Bootstrapped standardised coefficient for the indirect effect = -.09 (95% C. I.: -.16 -- .03), $p =.004$). In addition, the relation between group (prevention or control) and emotional symptoms was significantly mediated by the combined effects of acceptance and mindfulness, fear of emotions and productive coping (Bootstrapped standardised coefficient for the indirect effect = -.09 (95% C. I.: -.15 -- .03), $p =.005$). The findings, therefore, lend support to the hypothesis that participants’ change in depression and emotional symptoms, based on their assignment to either the prevention or control group, is mediated through their acquisition of acceptance and mindfulness skills, a decrease in their fear of emotions and increased productive coping skills.
Chapter 5

Discussion

The rationale for the development of the Life Skills program relates to the unequivocal need for more comprehensive ways of providing mental health services to young people. The delivery of preventative interventions in schools could be considered a proactive, effective approach to addressing the mental health needs of this population. Thus, the Life Skills program is an indicated prevention program that was developed as a way of revising traditional models of service delivery within the CAHS organisation and, ultimately, averting severe mental health dysfunction for those adolescents who have been identified as at risk. The general purpose of the current research was to evaluate the Life Skills program, serving to provide information pertaining to accountability and program impact, as well as knowledge generation in both prevention and emotion science.

Hypothesis One: Interpretation of the Findings

Intervention effects on process measures.

Consistent with the hypothesis that participants assigned to receive the Life Skills program would experience (a) significant reductions on measures of psychological indicators including depression, internalising and externalising symptoms and (increase in) self-esteem, there was a significant main effect for group at post-intervention on overall process measures. Thus, participants who were exposed to the Life Skills program significantly improved overall on emotional regulation skills, as compared to those participants in the control group. This is an important finding, as it
lends support to the value of prevention programs in having influence over the malleability of specific risk and protective factors. As outlined previously, evidence has shown that difficulties with emotion regulation underlie many forms of clinical disorders or psychological problems, and thus the ability for the Life Skills program to have influence over the development of these skills can be considered greatly beneficial for those young people identified to be at-risk.

Further univariate analyses relating to specific process measures revealed that participants who received the Life Skills program had increased skills in acceptance and mindfulness, as compared to those participants in the control group. This finding is a unique contribution to the literature regarding acceptance- and mindfulness-based interventions for children and adolescents, as to date there are no published studies that have utilised the CAMM in experimental research. Twohig and colleagues (2010) note that research with this population has solely focused on outcome studies and, thus, the authors make the assertion that examining changes in acceptance- and mindfulness related processes is an important direction for future research. Furthermore, Greco, Baer, and Smith (2011) have called for studies investigating the sensitivity of the CAMM in detecting intervention effects, as well as its utility as an instrument for ascertaining mediation of treatment outcome (this is addressed in hypothesis two of the current study). The use of the CAMM in the current study, arguably, addresses the issues noted by these authors. The finding that participants who were exposed to the Life Skills program actually reported higher levels of mindfulness skills, as measured by the CAMM, suggests that this instrument is sensitive enough to detect effects, as well
as, highlights the novelty and value of the current evaluation. Results of the current research also suggest that acceptance and mindfulness skills can be taught in adolescent populations, as well as lending support to the clinical utility of the CAMM, given that it has demonstrated sensitivity to change in the current study. Despite the lack of data from adolescent populations, the current finding also is consistent with research from the adult literature, where it has been found that mindfulness techniques can teach greater self-awareness, increased impulse control and decreased emotional reactivity to difficult events through the application of a relatively brief training package (Baer, 2003).

Given that the current study utilised a sub-clinical population, the generalisability of this finding must be carefully considered. It is possible that in clinical or disordered populations, acceptance and mindfulness as a construct may be more difficult to teach and, therefore, a relatively brief intervention may not be able to impact the development of these skills to the same extent. More extreme symptomatology is likely to impact on the learning ability of young people and, thus, the acquisition of a somewhat complex skill may take more time or involve a more intensive approach than that of the Life Skills program. Alternatively, previous prevention research trials that have demonstrated findings suggesting that bigger effects occur among more disordered populations (Durlak & Wells, 1998; Gillham et al., 2006; Horowitz & Garber, 2006) suggests, that the current finding could actually be a conservative estimate of the program’s utility with clinical populations. It is important to note, however, that prevention programs that have shown to have the biggest impact
with participants demonstrating higher levels of symptomatology are interventions that have primarily been based heavily in cognitive-behavioural approaches and thus this trend may not be comparable with intervention effects derived from the acceptance and mindfulness approach of the current program. Future research utilising the CAMM in clinical populations within an experimental context will assist in shedding light on these issues.

In addition, it is likely that the co-facilitators’ prior experience with mindfulness based interventions contributed positively to the finding in the current study. For example, the current researcher, and the CAHS clinicians involved in the project have all undergone specialised training in delivering mindfulness-based interventions. This training has implications for the generalisability of results, in that experts in this field have highlighted the importance for therapists involved in the teaching of mindfulness to regularly assess their level of training, supervision and continuing personal practice (Kabat-Zinn, 2003; Segal et al., 2002). It is possible that delivery of the Life Skills program by clinicians or professionals who lack experience with this form of intervention model may not produce the same positive results.

Univariate analysis relating to process measures also showed that productive coping increased for the intervention participants. This finding is consistent with expectations, given the content focus on this adaptive emotional regulation skill, and, again, is supportive of the program’s ability to change a specific protective factor identified in the literature relating to the development of psychopathology. The
remaining subscales of the ACS individually showed no significant intervention effects, however, contrary to expectation. In the current sample, the Cronbach’s alpha coefficient for the ‘Reference to Other’ subscale was particularly low, and the coefficient for the ‘Non-Productive Coping’ subscale was less than ideal also. It is possible that the inadequate psychometric properties of these subscales contributed this non-significant finding. Alternatively, a particular focus on promotion of adaptive emotional regulation skills, such as productive coping, and a lack of focus on reduction of maladaptive emotion regulation skills (i.e., unproductive coping) within the current program could be responsible for the finding.

Discordant with expectations, was the non-significant intervention effect for the overall Modified Affective Control Scale-Revised. It is possible that similar to the ‘Non Productive Coping’ scale, a lack of focus on the reduction of maladaptive emotion regulation strategies (i.e., a reduction in fear of emotions) resulted in this finding. However, given the emphasis on the functionality and perspective of the adaptiveness of emotions promoted within the program, it is likely that fear of emotions was adequately addressed through program content. Therefore, perhaps the use of this instrument within a subclinical sample is not appropriate in terms of sensitivity to detect change, as it is possible that initial extremity of fear of emotions has a greater likelihood of being altered through intervention. Further univariate analyses revealed a significant intervention effect for the fear of anxiety subscale only. This finding could be attributed to the fact that this subscale constitutes the greatest number of items in this measure and thus, arguably, is likely to be most sensitive to change. Alternatively, it could be that
the increase in fear of anxiety in the control group, in combination with the reduction in
the intervention group, is reflective of the pertinence of anxiety symptoms during this
developmental period. Such an interpretation is consistent with evidence that
demonstrates symptoms of anxiety often precede symptoms of depression and other
mood disorders (Wilson, 2010).

And finally, it is also possible that program content has contributed to the lack of
significant changes in the reduction of maladaptive emotion regulation strategies, as
measured by the remaining subscales comprising the ACS (non-productive coping,
reference to other) and the MACS-R (fear of emotions). It could be argued that the
content of the Life Skills program is more cognitively focused, rather than emotion
focused. Thus, greater emphasis on the acceptance and normalisation of emotions
within the context of each participant’s own stories and issues may have been required
to create change with respect to these processes.

**Intervention effects on psychological indicator measures.**

Contrary to the hypothesis, results indicated a non-significant intervention effect
for overall psychological indicator measures. This finding could be attributed to a
number of different factors. Firstly, the use of clinical measures in a non-clinical
population has obvious implications regarding instrument sensitivity within this sample
(i.e., the clinical measures implemented might not be sensitive enough to identify
statistically significant changes in the participants who would like not be in the ‘clinical’
or abnormal’ range). Alternatively, it is possible that potential intervention effects for
clinical symptoms occur later than at the time of post-intervention measurement. This is especially relevant when taking into consideration the theoretical underpinnings of the contribution of risk and protective factors to later development of disorder. Given that there was a main effect for overall process measures (risk and protective factors) there is the potential for these changes to have a long-term effect on clinical outcome. The addition of follow-up data to the current study would assist in gaining a clearer picture of this potential effect. It is also possible that the finding relates to a ‘dose’ issue in that the relatively brief nature of the intervention might not have been sufficient to bring about change in clinical symptomatology and, thus, it is possible that more intensive approaches are necessary. The finding of a significant group effect for Depression, however, suggests that this might not be the case, and the relevance of the measures to group content should be considered.

The reduction in depression scores on the CDI for participants in the intervention group lends support to the effectiveness of the Life Skills Program. The finding is also consistent with many other prevention programs targeting adolescent depression (Horowitz & Garber, 2006), and adds further credence to the value in mental health prevention programs on a wider scale. It is important to note that initial scores on the CDI for the prevention group were approaching a score indicating clinical range of symptomatology (see Table 6) and may have contributed to the significant intervention effects. Previous research has illuminated higher effect sizes from selective and indicated intervention as compared to universal interventions (Cuijpers et al., 2008; Horowitz & Garber, 2006) and it has also been reported that a decrease in symptoms
appears to be most evident for those individuals with greater levels of initial symptomatology (Jaycox et al., 1994). As such, results relating to depression scores in the current study may not be applicable outside the current sample, and further replication studies are needed before drawing any definite conclusions. It is possible that the Life Skills program is most beneficial for those participants demonstrating elevated levels of symptomatology and this could have implications regarding the inclusion criteria for subsequent program administration.

Further discordance with expectation was the presence of data indicating no significant intervention effects for the remaining psychological indicator variables individually. Given that the SDQ has subscales that measure constructs not explicitly targeted by the intervention, non significant intervention effects for the total score of this measure was not entirely surprising. For example, the conduct problems, hyperactivity / inattention and pro-social subscales, specifically, would not have been expected to change, based on program content. Despite this, the Emotional Symptoms and Peer Relationships problems subscales were expected to change, although these subscales individually showed no intervention effects, following univariate analyses. On closer examination of the items that the Emotional Symptoms subscale comprises it would appear that the majority of the five items are reflective of anxiety symptoms and only one item relates to depressive symptomatology per se. Thus, the finding of significant intervention effects for the CDI and not this particular subscale could suggest the program works more effectively in targeting a more homogeneous disorder population in the prevention of depression. In light of the evidence pertaining to emotion
regulation as a potentially unifying function of diverse symptom presentation, however, it could be argued that this is not likely to be the case. Instead, the finding could be attributed to measurement issues, in that a greater number of items compose the CDI in comparison to the Emotional Symptoms subscale, thus allowing for a greater likelihood of the CDI assessing the many facets (i.e., behavioural, physiological and cognitive components) that constitute the construct of depression. The five items on the Emotional Symptoms subscale might not have been adequate in to tap into the many facets that comprise the experience of anxiety. It would be interesting to include a more formal measure of anxiety in future replications of the current study, as a way of ascertaining the potential for the Life Skills program to target mood disorders more generally, as well as providing some contribution to the understanding of the unifying factors and processes underlying psychopathology.

To some degree, the Peer Relationship Problem subscale was expected to show significant intervention effects, given the program content focusing on interpersonal skills and effective communication. However data were inconsistent with this expectation. Again, this finding might be attributed to a measurement issue, given that the items in the subscale appear to be reflective of social isolation and inability to form relationship with peers rather than peer conflict. It could be argued that group content in the Life Skills program has a greater focus on resolving peer conflict through effective communication and adaptive interpersonal skills and, thus, perhaps this particular subscale is an inadequate assessment of this. An alternative interpretation, however, could be that improvements in peer relationships are more of a distal outcome, in that
relationships with others are less under participants’ control than their own emotional responses. Therefore it might take time (greater than that of the duration of the program) for the successful management of the complexities of personal relationships to be actualised. Future research that includes follow-up assessment at a prolonged time point following program cessation would assist in gaining greater clarity into this.

The final univariate analysis pertaining to psychological indicator measures revealed a non-significant intervention effect for self-esteem, contrary to expectation. It is possible that this finding can be attributed to a lack of explicit focus on self-esteem in the Life Skills program. Haney and Durlak (1998) in their meta-analytic review (focusing on changing self-esteem in children and adolescents) noted that significant improvements in self-esteem and self-concept were unlikely, unless the interventions had specifically focused on addressing these constructs. Further to this, the authors purported that interventions focusing on other goals, such as reducing behaviour problems or improving functioning in other areas, resulted in little effect on self-esteem and self-concept. Thus, results from the current study are consistent with those of this review.

**Hypothesis Two: Interpretation of the Findings**

The findings derived through the analyses conducted in relation to the first hypothesis function to establish the relation between the current intervention and therapeutic change. However, this relation does not necessarily provide information to explain why the change occurred. Research efforts to illuminate change processes are
vital, although appear to be deficient in contemporary literature. Some researchers have argued that despite an increase in the frequency and sophistication of research examining mental health interventions (prevention and treatment) for children and adolescents, the focus on investigating the mechanisms underlying therapeutic change has not corresponded (Jensen, Weersing, Hoagwood, & Goldman, 2005; Kazdin & Nock, 2003; Weersing & Weiz, 2002). What is apparent is that within the literature, the ability to provide an evidence-based explanation for how or why even the most effective interventions produce change is largely unobtainable at this stage (Jensen et al., 2005). The study of mechanisms through which outcome is produced is a key aspect of a prevention trial, as a way to generate theoretically relevant information and, in this way, assists in bridging the gap between theory and practice.

The current study intended to address the short-comings in prevention research and contribute to knowledge generation through the application of mediation modelling in path analysis. Data generated from this analysis were consistent with expectations. The overall combination of fit indices, and the significant indirect effect on Depression and Emotional Symptoms through the combined effects of the three process variables, suggested that the hypothesised mediation model was well-fitting to the data. This is an important finding in terms of the evaluation of the Life Skills program, as it suggests that changes in participants’ psychological indicator scores can be attributed, to the ‘active ingredients’ composing the intervention. In other words, program effects can be attributed, to the development of skills in emotional regulation (as targeted by the intervention), rather than other factors relevant to group participation (i.e. social support,
positive interactions with peers or staff). The hypothesised model in the current study was driven by theory and based on previous findings from the literature, suggesting that emotion regulation is a key factor underlying the development of disorder, as well as an important mediator of treatment change. Thus, the findings of the current study add further support to this notion, and are discussed further in the theoretical and clinical implications section of this chapter.

Given that the current mediation model involved the inclusion of three process variables, it is impossible to determine which of these processes, individually, mediated changes in depression symptoms and emotional symptoms. Mackinnon (2008) asserts that the collective mediation effect could, in fact, be additive, in that data supportive of a mediation model should be interpreted in the context of the other mediation variables present. Relevant to the current model, this implies that the data is supportive of the hypothesis that changes in acceptance and mindfulness mediate changes in emotional symptoms (see Figure 2); however, this is only true in the context of a model that includes fear of emotions and productive coping as additional mediating variables. Furthermore, individual path analyses examining the mediating effects of the process variables individually, was not possible, given that skill acquisition was heavily influenced by the treatment package (i.e. acceptance and mindfulness skills were taught alongside productive coping skills and thus it is impossible to suggest that exposure to one skill set did not influence the other).
Further to this, it is important to note that, although the data are consistent with the proposed model, there may be other models (i.e., that express alternate relations among variables, or that include different mediating variables) that account for the relationships between program exposure and psychological indicator outcomes just as well or better. The multiple mediator model in the current study is justified, given that the independent variable (program exposure) is likely to have had effects through multiple mediating processes, as the intervention constitutes a multiple component ‘package’ structure. Furthermore, this model has been constructed in an attempt to address the research question of whether or not the intervention effects were resultant through the program’s ‘ingredients.’ However, Mackinnon (2008) argues that in these types of mediator models, true causal relationships are difficult to disentangle due to the number of potential alternative relations among variables. For example, in the current study, results indicated that group assignment significantly predicted scores on acceptance and mindfulness; however, acceptance and mindfulness did not predict depression scores. In this case, Mackinnon (2008) would argue that the possible function of the mediator (acceptance and mindfulness) should be investigated by considering the estimation of additional models whereby acceptance and mindfulness is a link in a chain of mediators. However, if the mediator is not significantly related to the other mediators, Mackinnon (2008) states that then it may not be part of the chain of mediators.

Correlational analysis in the current study revealed significant associations between acceptance and mindfulness, fear of emotions and productive coping, and
therefore the possibility of a chain of mediators cannot be ruled out. In fact, it is suggested that most mediating variables essentially comprise a longer theoretical mediational chain (Cook & Campbell, 1979). Relevant to the current study, it is possible that acceptance and mindfulness, fear of emotions and productive coping are linked, such that increasing acceptance and mindfulness skills will lead to a decrease in fear of emotions, leading to more productive coping. More specifically, it is possible that by increasing one’s willingness to experience emotion more fully (being accepting and mindful), this change could facilitate desensitisation and habituation to the emotion, thus resulting in the emotion being less feared, in turn, resulting in more approach orientated, productive coping. As such, it may be of benefit for future research to measure the constructs in a theoretical chain from exposure to prevention program, to change in acceptance in mindfulness skills, to change in fear of emotions, to change in depressive symptomatology. Furthermore the inclusion of multiple questionnaire administration time points to the research design would assist in generating information relating to the proceeding order of skill acquisition. Such research might assist in illuminating the relationships between these facets of emotion regulation, thus contributing to knowledge in emotion science.

The alternative explanation for the non-significant direct effect between acceptance and mindfulness and depression is that these variables are not related (Mackinnon, 2008). The cultivation of acceptance and mindfulness skills allows one to be willing to experience all internal events fully, while interrupting automatic responding that favours avoidance and suppression. In this way, it is possible that the
application of acceptance and mindfulness, does not necessarily result in the individual experiencing ‘less’ emotion or symptomatology, and in fact could result in a heightened awareness of emotional and internal experiences (given the increased willingness to experience these events), thus influencing a participant’s responses on assessment of presence of depression symptoms. This interpretation is indeed reflective of the therapeutic outcomes promoted by Acceptance and Commitment therapy (an intervention that incorporates a strong focus on the development of skills in acceptance and mindfulness), which is primarily targeted at improving quality of life, measured by the participant’s engagement in valued living, and does not involve a focus on symptom reduction (Hayes et al., 2006; Hayes et al., 1999; Lubman, Hayes, & Walser, 2007). The aim is to live a more present and meaningful life, alongside the experience of unwanted private events and, thus, it is possible that the two variables are not related, in that acceptance and mindfulness do not lead to a change in the presence or magnitude of clinical symptomatology.

However, given the significant correlation between acceptance and mindfulness, and depression, it is argued in the current thesis that the two constructs are associated, but possibly in an alternative way (i.e., related through a theoretical chain) to that depicted in the model (see Figure 1). In this way, it is suggested that although change in acceptance and mindfulness may not lead to a change in the presence or magnitude of clinical symptomatology, it may rather lead to a change in the participant’s relationship to their symptomatology (be it through less fear of emotions etc.). As mentioned
previously, future research examining mediation chains will assist in elucidating these relationships further.

Another important avenue for future research involves examination of the specific components of the intervention individually. Mackinnon (2008) asserts that once an intervention is found to be successful, it is feasible to conduct further research to identify the most powerful components of the intervention. Results generated in the current study lend support to the claim that the program package as whole, effects outcome in the psychological indicator variables. Thus, what is known is that the program components are related and work together (as aspects of emotion regulation) to produce interactive effects on the outcome. It is possible (although not tested in the current study), that none of the processes skills (acceptance and mindfulness, fear of emotions, or productive coping) are able to effect depression and emotion symptoms independently, but are effective when combined in one program. This is not to discount that the current study has provided important evidence that the data support the mediation model, as this is a crucial first step in revealing key means by which the program exerts its therapeutic benefits, and hence provides implications for future prevention trials (Kraemer, Wilson, Fairburn, & Agras, 2002). For example, in future prevention trials, random assignment could be made to interventions that directly target one aspect of emotion regulation, such as fear of emotions, as compared to productive coping, to establish more conclusively their causal and unique contribution to psychological indicator outcomes (depression and emotional symptoms).
Methodological Limitations

The results of the current study are positive and can be viewed as initial support for the efficacy of the Life Skills Program. However, additional research is needed to replicate these findings. The Society for Prevention research defines an efficacious intervention as one that has been tested in at least two rigorous trials and demonstrates consistent positive results (Flay et al., 2005). Thus, results of the current study must be considered preliminary. It is further acknowledged that there are several methodological limitations that need to be taken into consideration when interpreting findings.

Efficacy versus effectiveness research.

In an attempt to accommodate for the complexities of the school environment, there were a few aspects of the methodological process that were difficult to control. It has been argued that the realities of school life do not fit tightly controlled research designs (Macklem, 2011) and, as a consequence, the adherence to rigorous scientific principles at all times in the current study was not possible. It is important to take note of this, given that these methodological limitations have the potential to confound results. Thus, the issues pertaining to efficacy versus effectiveness research can be applied to the current study.

Efficacy research, or clinical trials, examines the outcomes of interventions under highly controlled conditions and is considered to be ‘gold standard’ in clinical research (Power, 2003). Efficacy research promotes random assignment of subjects
either to experimental or comparison/control treatments and is most concerned with replication, given that replicated outcome findings are more likely to be valid (Nathan 2007). Further to this, these studies are likely to be conducted with diagnostically homogeneous populations whose psychopathology can be clearly defined by reliable and valid measures (Nathan 2007).

Comparatively, effectiveness research is concerned with the feasibility of treatments in real world settings. Thus, individuals who require intervention, regardless of diagnosis, co-morbid psychopathology, or duration of illness, participate in effectiveness studies (Nathan, 2007). Randomisation is not always possible in complex environments and, thus, researchers have used quasi-experimental designs in which individuals are compared to similar individuals and participation in each group is predetermined (Macklem, 2011). It has been argued that, although efficacy research has numerous strengths, including the implementation of a systematic intervention protocol that is delivered with a great amount of integrity, this type of research is limited in that it may not take into account real life feasibility issues that can have an effect on service in the community (Power, 2003).

The multiple co-facilitators involved in the current study might be considered a methodological departure from the gold standard processes in efficacy research, given the potential for variation in terms of program delivery inherent in the differences in individuals (e.g., in terms of prior experience conducting group therapy, number of years practicing as a clinician, etc). Thus, there is the potential for the integrity of the
program in the way of delivery to be compromised. Furthermore, in a naturalistic setting, where conditions are not under maximum control, chances are that implementers will make modifications and, inevitably, the inconsistencies in delivery of program components increase (Macklem, 2011). While this can certainly be perceived as a methodological limitation due to a compromise in the program’s fidelity, it is also important to ascertain findings in settings where the program is likely to be run again in the future, as this is likely to have implications for the sustainability of the program. In other words, it is important to know what actually works in schools and, thus, value is held in the generalisability of results.

The tension between the need to implement programs as they were designed versus the need to make adaptations to “fit” the program to local conditions has been a long-standing contention within the literature. Although local adaptation may well increase the likelihood of increasing longevity and sustaining a program, if it then renders the program ineffective, this is a less than ideal outcome. Therefore, it is argued that both fidelity and sustainability are necessary components of a successful prevention effort (Elliott & Mihalic, 2004). In the current study, the degree of deviation from the intervention protocol is not clear and is unquantified. Despite efforts to limit the number of clinicians involved in co-facilitation as much as possible, some groups were delivered without the involvement of the current researcher. Furthermore, even when groups were delivered by the current researcher, the idiosyncratic policies and procedures of individual schools and the differences pertaining to other environmental factors resulted in inevitable inconsistencies. Future replications of the current study
should include fidelity measures relating to specific implementation issues, in an attempt to monitor the extent of deviation from protocol, as well as quantifying additional factors that can interfere with implementation, including the degree to which delivery meets program goals, student responsiveness and behaviour, the degree of participation by students and classroom control.

An additional departure from efficacy research pertains to the utilisation of a quasi-experimental design (see method section, pp. 85-86). In the current study it was not possible to always randomly assign students and, thus, participation in each group was predetermined. Whenever this occurred, students were matched as closely as possible. However, the very nature of the decisions made by school psychologists to assign to either control or experimental group implies obvious variation in participant characteristics. The initial MANOVA conducted to test for comparability between the prevention and control groups on all pre-treatment variables revealed an absence of any group differences on overall process skills and overall psychological indicator measures at pre-intervention. Thus, in terms of level of symptomatology, as well as characteristics relating to the inclusion and exclusion criteria, it would appear that participants in both groups were closely matched. Despite this, there may have been other factors or characteristics that differentiated the two groups that were not measured, for example, motivation to engage in a group program and to address mental health issues, ability to demonstrate appropriate behaviour in a classroom environment, school attendance and / or superior interpersonal skills. It is important for future replications of the current study to consider measuring these variables, as they could potentially impact
significantly on the program’s success. As these variables were not measured in the current study, the significant intervention effects for some of the measures must be interpreted with caution.

Rossi and colleagues (2004) use the term non-equivalent comparison design (p. 269) to describe the process of group comparison when these groups have not been formed through randomisation. They assert that when non-randomisation occurs, equivalence of outcome, without program exposure, cannot necessarily be assumed, irrespective of how equivalent the groups may appear. They further state that this produces a bias in the estimate of program effects that is known as selection bias and is considered to be an inherent threat to the validity of the program effect estimate. While this is certainly relevant to the current study, and is acknowledged by the author, the inclusion of a path analysis model to test for mediation adds another dimension to the results, rather than simply looking at group comparisons. Support for mediation in the current study suggests that change in processes variables does, in fact, contribute to the differences in outcome between the two groups and, therefore, the validity of the program effect is somewhat protected through this finding.

The positives and negatives associated with efficacy and effectiveness research strongly relate to the current study. As outlined above, the deviation from ‘gold standard’ methodologies promoted in efficacy research in the current study requires careful interpretation of results, given that departures have the potential to impact on the analyses. For example, results from the current study revealed that, when controlling for
pre-intervention process measure scores, there was a significant main effect for group at post-intervention on overall processes measures. These measures are reflective of the skills learned in the group and, as such, individual differences in learning ability, interpersonal skills, motivation, and, thus, group participation would have direct consequences on these intervention effects. Those participants’ who are better at learning, can conduct themselves appropriately in a group environment and are motivated to address their issues are more likely to increase their skills as a result of participation in the group than those who do not have these characteristics. Therefore, if participants were assigned to the experimental group based on these features, there is the potential for results to be confounded. Alternatively, the adoption of a quasi-experimental design in the current study parallels some of the benefits associated with effectiveness research, especially in relation to sustainability of the program. It can be argued that the most important question for the relevant stakeholders involved in the Life Skills Program is ‘what works in schools?’. Thus it is likely that results found within the complexities of the naturalistic environment will hold most value.

**Lack of formal screening procedure.**

A strength of the current study was the incorporation of established inclusion and exclusion criteria, as a way of providing some reliability to the selection process of identifying appropriate participants for an indicated program. The process was further extended to include discussion between the current researcher and school psychologist, in order to oversee the school psychologist’s process in matching students against these criteria. This discussion process was helpful, especially in reducing the likelihood of
including false positives. For example, it appeared that a few students were identified by the school psychologist on the basis of clearly demonstrating symptomatology. On closer inspection, however, it became apparent that although these students were not receiving mental health services outside the school system, their level of distress or presence of psychosocial stress within their home environment indicated that they were in need of a more intense level of care. Thus, they did not satisfy the exclusion criteria that states ‘students who are experiencing emotional and behavioural symptoms severe enough to meet criteria for a CAHS referral.’ In these instances, the school psychologist was encouraged to initiate a referral for these students to an appropriate service, based on the policies and procedures relevant to their particular school.

Despite the inclusion of an established process for identifying students, the lack of more formal screening procedures, pertaining to the use of standardised measures, can be considered a limitation of the current study. It has been found that screening approaches using reliable instruments produce higher effects than other forms of screening (Durlak & Wells, 1998) and, thus, a way to enhance the present study would be to include such measures as a way of increasing the accuracy with which participants in the target population are identified. Pragmatic issues and time constraints were the contributing factors to this methodological limitation. Schools are busy environments with limited resources and, in order to ensure successful recruitment of numerous institutions, it was necessary to keep administration work, as well as time away from class for students, to a minimum. The investigation of screening methods that can validly and efficiently identify individuals at risk for development of clinical disorder
would therefore make a valuable and important contribution to future research in prevention.

**Use of self-report measures only.**

The possibility of response bias is substantial in the current study, given the reliance on the self-report format of the measures used. The current researcher was solely responsible for questionnaire administration with all participants. While this ensured consistency and standardised administration across all schools, the mere presence of the researcher for those participants in the experimental group, who were exposed to co-facilitation by the researcher, might have somewhat biased their responses. There is the possibility that participants’ responses were reflective of wanting to appear socially desirable, influenced by the established relationship with the researcher, developed through group participation. Alternatively, the information pertaining to group participation might have been particularly salient in the presence of the current researcher and, as such, students’ recollection of group content might have also influenced the way in which they responded. Ideally, this process could be improved with the administration of questionnaires being conducted by a consistent external person, who has no involvement with group co-facilitation.

Further to this, there is the potential for item overlap between self-reports of emotion regulation and clinical symptoms and, thus, it is possible that the relationship between these two measures may be inflated (Aldo et al., 2010). For example, the assessment of one’s relationship to emotion (fear of emotion) may be confounded with
depressive symptomatology. The experimental method of the current study somewhat compensated for this, in that the design allowed for a more valid testing of the relationships between emotion-regulation strategies and clinical symptoms. Overall, however, the sole use of self-report data, and assessment in that subject domain might be considered problematic. Hence, for future research, the inclusion of more objective measures, such as parent or teacher informant measures would enhance the reliability of results.

**Timing of questionnaire administration.**

Some researchers have argued that the timing of variable measurement in a study should be carefully considered, particularly in relation to examining mediation hypotheses (Hinshaw, 2007). It is purported that, at the very least, a mediator should involve a change score from before to after treatment (as satisfied in the current study); however, the target variables should also be assessed ideally during the period of intervention, in between pre-intervention and post-intervention periods (Hinshaw, Owens, & Wells, 2000). A mid-intervention measurement period was not included in the current study. This omission might be considered a methodological limitation, due to the potential negative impact on the ability to make adequate inferences regarding mediation. For example, some researchers assert that when a hypothesised mediator variable is assessed only upon cessation of the intervention, it is plausible that it is merely an alternative outcome measure, rather than reflecting a process that predicts change in the outcome measure (Kazdin & Nock, 2003). As such, the findings of the current study must be interpreted with caution. Future research could focus on
conducting a superior prevention trial with the inclusion of an additional mid-intervention measurement period to determine whether the mediation effects remain evident when incorporating the additional data. However the practicalities of this inclusion to the design must be acknowledged.

**Lack of follow-up and assessment of incidence of disorder.**

The present study did not incorporate a follow-up administration of the questionnaire package and, therefore, longitudinal data pertaining to prolonged intervention effects are not available. Follow-up assessments were not included mainly due to restrictions with regards to the scope of the research program and time constraints. An improvement for replication studies to consider would be to include data collection perhaps occurring after a prolonged period of time following cessation of the intervention (e.g., perhaps six months to a year later). Such follow-up would assist in providing insight into whether intervention effects are sustained over time and not just occurring immediately after cessation of the program. Further to this, the current study did not include assessment pertaining to incidence of disorder. Future research would benefit from the inclusion of diagnostic interviews, administered at the time of follow-up or later, to establish whether the intervention group showed a reduction in incidence of established disorder, as compared to the control group.

The use of the term *prevention* in its strictest sense has been the source of some contention within the literature. Gillham, Shatte and Freres (2000) have recommended that the word *prevention* be reserved for those interventions that result in a stagnation of
further manifestation of symptoms or disorders relative to controls, whereas interventions that result in a decline in the level of symptoms relative to controls should be referred to as treatment. Other researchers have referred to the effects observed immediately following cessation of the program as treatment, and those recorded at follow-up as prevention (Cardemil, Reivich, & Seligman, 2002). Harowitz and Garber (2006) also highlight the fact that an increase in symptomatology in the control group and no change in symptomatology in the intervention group could potentially produce an effect size identical to that resultant from a decrease in symptoms in the intervention group and no change in the control group. Harowitz and Garber (2006) argue that, in fact, these two patterns of results would be interpreted rather differently.

In the current study, Depression was the only psychological indicator variable that demonstrated a significant intervention effect. Between pre- and post-intervention, the results showed a decrease in scores on the Children’s Depression Inventory for the intervention group and almost no change in the control group. Thus, when taking into consideration the arguments outlined above, it would appear that the results of the current study align with that of treatment effects rather than prevention effects per se. This finding, however, is comparable to the studies reviewed by Harowitz and Garber (2006) who noted that most programs that demonstrated moderate effect sizes were best classified as treatment. In addition to this, the lack of empirical investigation pertaining to incidence of disorder results in an inability to draw conclusions regarding the preventive impact of the Life Skills Program. Despite this, the IOM (Mrazek & Haggerty, 1994) have outlined several other meaningful goals with respect to
prevention, even if the reduction of incidence of disorder is not established. Therefore, it can be argued that the results of the current study hold value in the significant reduction of depressive symptoms, especially in light of the evidence for the strong association between sub-clinical symptomatology and development of disorder (Pine et al., 1999; Weissman et al., 1997).

**Measurement of emotional regulation.**

Three measures of emotional regulation were included in the current study. The premise for the incorporation of these was based on program content, as well as evidence from the literature linking these strategies to the development of psychopathology. The finding of mediation derived from path analysis suggests that, although the data are somewhat consistent with the proposed model, there may be other models (i.e., that include an alternative set of mediator variables) that account for the relationship between group and psychological indicator outcomes just as well, or better. It is thus worth considering mediators that measure other aspects of emotional regulation, in order to gain a better understanding of this.

Aldo and colleagues (2010), for example, in their meta-analytic review examining emotion regulation strategies across pathology, found that some emotion-regulation strategies were more strongly related to overall psychopathology than others. In particular, it was found that strategies considered to be *maladaptive* (i.e., rumination, avoidance, suppression) were more strongly related to psychopathology than the strategies to be considered *adaptive* (i.e., acceptance and reappraisal). The authors duly
made the assertion that the presence of maladaptive regulation strategy is more detrimental than the relative lack of particularly adaptive emotion regulation strategies.

In their analysis, problem solving was the only exception, in that this adaptive strategy demonstrated a medium to large effect size with overall psychopathology. The authors suggested that the absence of problem solving may facilitate the manifestation of maladaptive regulation strategies. One of the aims of the Life Skills program is to enhance, promote and teach adaptive emotion regulation strategies and, therefore, measurement of problem solving and acceptance and mindfulness was a way of ascertaining whether these processes or skills were learnt through participation in the intervention.

A useful extension of the current study would be to include measures of maladaptive emotion regulation (i.e., rumination, avoidance, suppression). Such measures might assist in determining whether the intervention had an effect on reducing the use of these strategies by participants, as well as inform the mediational model to a greater extent. It could be argued that the measurement of fear of emotions strongly relates to both avoidance and suppression, based on the premise that the more one fears emotion, the more likely they are to avoid or suppress these internal events. An explicit measurement of the use of these strategies, however, would likely provide a clearer picture of the impact of the intervention on the use of these techniques.

In addition, distress tolerance and cognitive restructuring are specific emotion regulation skills promoted in the Life Skills Program that have not been measured in the
current study. It is possible that the acquisition of these processes could be contributing to the unexplained variance in the psychological indicator variables depicted in the model. Therefore, replications of the current study might consider the measurement of these constructs. The Beck Hopelessness Scale (BHS; Beck & Steer, 1988) and the Children’s Negative Cognitive Error Questionnaire (CNCEQ; Leitenburg, Yost, & Carroll-Wilson, 1986) are examples of measures that have demonstrated good psychometric properties in adolescent populations and are designed to assess cognitive distortions. The inclusion of these measures in future studies could be a way to assess the impact of the program on participants’ abilities to recognise cognitive distortions as well as change these cognitions. The justification for not including these or similar measures in the current study relates to discussion later in the current chapter (see limitations of Life Skills Program section, page 142) regarding the juxtaposition of cognitive restructuring with mindfulness. The current researcher would argue that measuring processes that work in opposition may, in fact, confound results. This issue will need to be carefully considered in future extensions of the current study. Furthermore, with an addition of instruments (measures of maladaptive emotion regulation, as well as cognitive restructuring) and, as a consequence, increased number of items, the sample size in replication studies will also need to increase dramatically, in order to conduct any meaningful statistical analyses. Participants’ fatigue will need to be managed also, due to the likely increased time of questionnaire completion.

Similar pragmatic issues relating to administration contributed to the decision not to include an explicit measure of distress tolerance in the current study. Simons and
Gaher (2005) define distress tolerance as one’s capacity to withstand and experience negative psychological states. It has also been defined as the ability to persist in goal directed behaviour (Daughters et al., 2008). The construct is typically assessed with computerised laboratory measures or behavioural trials in which participants engage in a challenging task that increases in difficulty until success on the task is virtually impossible, at which point their continued effort on the task is measured (e.g., Daughters et al., 2009; Nock & Mendes, 2008). The inclusion of such a measure, in addition to the questionnaire format, did not appear feasible. Very few self-report measures of distress tolerance have been published in the literature. The only self-report measures that appeared to be available to the current author at the time of commencement of the research project were the Distress Tolerance Scale (DTS; Simons & Gaher, 2005) and the Distress Tolerance Scale (DTS-2; Corstorphine, Mountford, Tomlinson, Waller, & Meyer, 2007). While the DTS demonstrated good psychometric properties, it was noted by the authors that further confirmatory and exploratory factor analysis may be needed to confidently establish the validity of the scale. Further to this, as far as the current author was aware, the scale had not been researched within an adolescent population. Furthermore, the DTS-2 was designed for specific use within an eating disordered population and, therefore, was not appropriate for the use within the current sample.

Distress tolerance is theorised to be related to, though conceptually distinct from, a number of other variables, including experiential avoidance (Zvolensky, Vujanovic, Bernstein, & Leyro, 2010). It can therefore be argued that distress tolerance has been
assessed in the current study to some extent, given that the construct closely relates to the measurement of acceptance and mindfulness and fear of emotions. More specifically, individuals with low distress tolerance describe emotional discomfort as unbearable, unacceptable, and often behave in ways to reduce the discomfort experienced. This behaviour may involve making significant efforts to avoid unpleasant stimuli (Simons & Gaher, 2005). Therefore, an individual’s low distress tolerance may be reflected by their unwillingness to accept the present experience, and may involve judgemental thoughts or evaluative self-statements. Alternatively, individuals with high levels of distress tolerance may theoretically be more accepting of negative emotions and related aversive internal events (Leyro & Zvolensky, 2010). Thus, although distress tolerance has not been operationalised and measured in the study explicitly, the promotion of this skill in the Life Skill program could be impacting on the measures of fear of emotions and acceptance and mindfulness.

Limitations of the Life Skills program

Eclectic use of intervention modalities/techniques.

The content of the Life Skills program incorporates various different therapeutic techniques from Cognitive-Behavioural, Dialectical Behaviour and Acceptance- and Mindfulness-based models of therapy intervention. This is a somewhat eclectic combination of intervention techniques. However, the overall primary focus is to address and enhance emotional regulation as a target for intervention. While this is considered to be a worthwhile unified goal, particularly in light of the literature that demonstrates a link between emotion regulation and psychopathology, some clinicians
and researchers might argue that there are some processes that have been combined together in the Life skills program that work in opposition to each other.

This line of argument relates, in particular, to the treatment of thoughts, where the Cognitive-Behavioural model of therapy promotes cognitive restructuring as a particular technique, in comparison to Acceptance- and Mindfulness-based models of therapy, where cognitive defusion is promoted. The authors of treatment manuals for Cognitive-Behavioural therapy (e.g., Beck, 1995) invariably describe techniques for modifying the meaning of dysfunctional thoughts by challenging these thoughts on the basis of their internal logic. This thought modification is achieved, for example, through evaluating the evidence for and against a particular thought, eliciting more realistic thoughts and looking for evidence of distorted thinking. An Acceptance and Mindfulness stance, by contrast, does not explicitly suggest modifying thought content, or aim to identify schemata or dysfunctional thoughts (Mason & Hargreaves, 2001). Instead, cognitive defusion techniques attempt to change one’s relationship to these internal events, thereby, reducing the literal quality of the thought. The intended product of these techniques is a reduction in believability of, or attachment to, private events, rather than an immediate change in their frequency (Hayes et al., 2006).

Mindfulness is a particular cognitive defusion technique that aims to teach a more accepting relationship to one’s thoughts, rather than emphasising the creation of more positive or adaptive thoughts (Roemer & Orsillo, 2002), and it is argued that self-management of attention is the primary mechanism through which this occurs (Semple, Reid, & Miller, 2005). Therefore, the term Mindfulness describes intentionally focusing
one’s attention in the present moment in a non-judgemental, or accepting way (Kabat-Zinn, 2003).

While Cognitive-Behavioural and Acceptance- and Mindfulness-based approaches encourage becoming aware of thoughts and feelings, the differences between the two treatment modalities (as outlined above) relate to the way these thoughts and feelings are then treated. This can be considered problematic, given that the differences appear to be in contradiction to each other. The goal of cognitive restructuring is to substitute thoughts that are considered to be irrational, unrealistic, or illogical; juxtaposed with the goal of mindfulness, which is simply to non-judgementally observe thoughts and feelings as they come and go (Smith et al., 2008). Both these techniques are promoted within the Life Skills program, and, consequently it can be argued that the incorporation of seemingly opposing processes could impact negatively on and confound skill acquisition in either domain. An Acceptance and Mindfulness position towards dysfunctional thoughts primarily aims to avoid the ruminative trap of cognition and reduce the need for thought suppression. Under these circumstances, the process of cognitive restructuring can be considered counterproductive to this, in that it may encourage thought suppression/increase the likelihood of suppression, through focusing on the modification of thought content and identifying thoughts as ‘faulty’ (Eifert & Forsyth, 2005).

Some researchers have offered another perspective that looks beyond the dichotomisation between these treatment modalities and specific processes, and instead
focuses on the common mechanisms through which these treatment orientations operate. For example, Gross (2002) compared cognitive restructuring as an alternative experimental condition to suppression, and asserts that cognitive restructuring generally decreases the intensity, as well as behavioural manifestation, of negative emotion, and does not result in the same counterproductive effects as suppression. Further to this, some researchers have highlighted the perspective that cognitive restructuring contests the notion of thoughts as facts, by suggesting that dysfunctional thoughts are hypotheses to be tested against experiential evidence (Arch & Craske, 2008). In this way, it is argued that cognitive restructuring may interrupt rumination by encouraging contact with behavioural experience. Through this process, a distance is created from the thought, and it is suggested that this parallels the processes at work in acceptance- and mindfulness-based cognitive defusion (Arch & Craske, 2008). Similarly, Hofmann and Asmundson (2008) place both Acceptance and Cognitive-Behavioural approaches within an emotion regulation context and assert that both treatment modalities attempt to assist participants to develop adaptive emotion regulation skills, but target different aspects of the emotion generating process. The authors suggest that Cognitive-Behavioural therapy, with its emphasis on cognitive change strategies, encourages antecedent focused emotion regulation, whereas the acceptance strategies of Acceptance and Commitment therapy primarily counteract maladaptive response-focused emotional regulation.

Given that the Life Skills Program is brief and is targeted to young adolescents who are continuing to develop cognitively, the current researcher would argue that the
inclusion of these differing theoretical orientations is likely to have a negative impact on skill acquisition and the attainment of a full understanding of the concepts taught. As such, it is recommended that the program content focus on one orientation, as a way of providing a consistent approach to emotional regulation. Based on the current findings, this recommendation is speculative, given that there is a lack of empirical data to add credence to this assertion. The recommendation also has implications for sustainability of the program, in that program facilitators who align themselves with a particular orientation might not necessarily agree or feel comfortable with delivering these seemingly opposing strategies.

The finding of significant intervention effects for acceptance and mindfulness in the current study, might be related to a ‘dose’ issue, in that mindfulness skills are introduced earlier in the program and are continued throughout, whereas cognitive restructuring features later and is the focus for one or two sessions only. Thus, it is possible that skill acquisition in this domain might not have been compromised. However, given that the program has demonstrated ability to foster acceptance and mindfulness skills in young people, it would appear logical that this might be a worthwhile focus for the program and would provide more of an opportunity to cement learning with a greater amount of time dedicated to this. An alternative approach would be to present the content relating to identifying cognitive distortions and cognitive restructuring within an Acceptance- and Mindfulness- based framework, where attention is mostly drawn to the premise that thoughts are not facts, thereby, creating some distance between the thought and the thinker. Future research is needed to shed light on
the unique contributions of both cognitive restructuring and acceptance and mindfulness to the intervention outcomes, and ultimately the decision to include or not include these processes in combination with each other must be based on empirical evidence.

**Failure to address systemic/ecological issues.**

Similar to most conventional approaches to preventing or treating depression and other mood disorders, the Life Skills Program focuses on the individual/psychological components of these syndromes (i.e., individual behaviours, cognitions) as a target for intervention. While important, a sole focus on these components overlooks other equally important points of intervention within the psychosocial environment, most notably the family and the school (Herman, Merrell, Reinke, & Tucker, 2004).

There is evidence to suggest that adverse family environments are among the most consistent risk factors for adolescent depression (Evans, Foa, et al., 2005). Furthermore, family factors have been found to predict outcome and intervention response (Gladstone & Beardslee, 2009) and, therefore, it is argued that prevention programs targeting youth depression should include efforts to enhance the family environment (Avenevoli & Merikangas, 2006; Horowitz & Garber, 2006). Ideally, the Life Skills program could include a component that explicitly targets parenting behaviours that are most likely to contribute to depression in young adolescents, as a supplement to the established program. Systematic investigation examining the incremental contribution of this parent component would be a valuable extension of the current study. However the added parent component might compromise the
sustainability of the program, given that this addition will increase time and resources. Further to this, research has shown a low attendance rate for parents when this extra component is added to prevention programs for depression (Clarke, Rhode, Lewinsohn, Hops, & Seeley, 1999) and, thus, there are costs and benefits to the inclusion of this component.

Despite the school being used as a popular site for intervention, there is limited research addressing the school itself as the target of intervention (Herman et al., 2004). There is evidence to suggest that aspects of the school environment can contribute to, or exacerbate established risk factors for the development of behaviour problems that children exhibit within the classroom, and that these environmental aspects are successfully influenced/changed when they are the target of intervention to reduce risk (Reinke & Herman, 2002). However, research pertaining to how schools may contribute to internalising disorders such as depression is still in its infancy. Some ecological models of school influence have been proposed to explain specific problems, such as bullying, and these models are based on evidence such as the predisposition of peer victimization and later development of internalising disorders (Goodman, Stormshak, & Dishion, 2001), thus supporting the value of bully prevention strategies in the wider school community. Similar to the addition of a family component, there are costs and benefits with the addition of an explicit school-wide component to the Life Skills program. Again, such an addition would primarily have impact on the sustainability and feasibility of the program.
Methodological Strengths

Identification of an appropriate sample.

Despite a lack of formal screening procedures in the current study, the incorporation of established inclusion and exclusion criteria facilitated a standardised process with regards to selecting targeted participants for an indicated prevention program. The selection and use of an appropriate sample is pertinent to the evaluative process, in relation to the realisation of true intervention effects. For example, in a non-clinical population, the measures utilised in the current study would be expected to produce ceiling and floor effects, and, thus, sensitivity to record change would have been compromised. Furthermore, the provision of the Life Skills program in a disordered population would have been potentially inadequate in terms of ‘dose’ of intervention, as treatment interventions typically involve greater intensity (e.g., length and duration of intervention). Therefore, it was important that the intended subclinical (defined by symptoms that are of insufficient intensity or number to necessitate a diagnosis, Ingram et al., 2004) population was recruited. Relevant to the current research, sample characteristic analysis revealed pre-test means for the whole sample that indeed indicated recruitment of an appropriate sample. More specifically, when mean scores recorded on the psychological indicator variables for the sample as a whole were compared to the clinical-cut off scores, based on norms of these clinical measures, it was revealed that participants in the current study demonstrated elevated scores that fell short of clinical range, thus suggesting a subclinical population. Thus, the process of consultation with regards to identifying participants based on inclusion and exclusion criteria, can be considered a positive element of the research design. Furthermore, the
overall findings of positive intervention effects suggest the program has benefited an indicated population, based on subclinical presentation. The generalisability these findings is supported, based on the recruitment of schools from a relatively diverse range of geographical, as well as socio-demographical, areas, in addition to the potentially heterogeneous nature of mental health issues experienced by participants.

**Application of an independent and external evaluative process.**

The current study is reflective of an independent evaluation, given that the current researcher (evaluator) held prime responsibility for devising the evaluation plans, conducting the evaluation and disseminating the results (see Rossi et al., 2004). Despite general consultation between the current researcher and relevant stakeholders (i.e., program developers, school personnel), as a way of facilitating some influence in shaping the evaluation, overall, the current researcher was, for the most part, autonomous with regards to initiating and directing the evaluation. Further to this, given that the current researcher had no involvement with the development of the intervention protocol, the evaluator was considered an external stakeholder. The application of an independent and external evaluative process is considered a methodological strength, in that the evaluative process was less likely to be influenced by an implicit agenda that might have been attached to the program developer. Consequently, the current evaluation was considered more objective in nature than if it had been conducted by the program developers themselves. However, it is important to note that some objectivity might have been compromised, given that the current researcher was in fact involved in the provision of the program, by way of co-facilitation.
Strengths of the Life Skills Program

Feasibility of the program.

The co-facilitators involved in the delivery of the Life Skills Program varied in terms of professional background, as well as number of years experience in their role. Most of these individuals had limited experience conducting group therapy. Despite this, anecdotal feedback indicated that the program was easy to deliver and run, given that co-facilitators were provided with a detailed manual describing explicit implementation instructions. Further to this, two of the schools involved in the research project decided at the conclusion of the program to continue to run it annually within their school, using trained school employees for co-facilitation, with the opportunity for consultation with CAHS clinicians when necessary. Overall, verbal feedback from relevant personnel involved in the project (including school employees, as well as CAHS clinicians) was positive and highlighted the value the program brought to the school and the students involved. For example, at one school, it was noted by the school psychologist that there was a decrease in contact made with student support services (i.e., school psychologists, year co-ordinators or school chaplain) by the students in the intervention condition. It appeared this contact was a more efficient way to provide students with the services they required and this contact impacted positively on school resources. An improved extension of the current study would be to investigate empirically, through surveys or interviews with all relevant personnel, the ways in which the program achieved the intended goals for all stakeholders.
As well as feasibility for stakeholders, the consumers also appeared to find value in the program, as was reflected through verbal feedback and the low attrition rate by participants in the intervention condition. The attendance of sessions during normal class time, with the addition of interactive, experiential activities as well as the promotion of group ownership, likely contributed to this consumer engagement satisfaction. Again, an improved extension of the current study would be to investigate empirically participants’ satisfaction with the program. This is especially important, as ultimately the program is designed to benefit consumers and make an impact on their developmental trajectories.

Implications of the Current Research

Accountability and program impact: Implications for models of service delivery within CAHS.

CAHS is a government-funded, specialist mental health organisation in Western Australia that provides assessment, diagnosis and psychological intervention for children and adolescents. This service employs a referral criterion that typically prioritises complex and high needs clients who are experiencing more severe mental health issues. Resource limitations largely dictate this access pattern. This reactive approach to the provision of services can lead to overwhelming the system with cases that are difficult to treat, labour intensive and time consuming. The development of the Life Skills program is reflective of an initiative directed by a pair of clinicians within the service, as a way of providing an alternative model of service delivery that promotes the prevention of severe mental health dysfunction, thus providing more efficient and
effective outcomes for both consumers and treatment providers. While this initiative appears beneficial theoretically, empirical investigation into the efficacy of the Life Skills program is imperative, in order to substantiate these efforts.

Ultimately, the provision of any form of psychological services is justified on the basis of evidence-based practice. In order for policy makers and clinical directors to make decisions regarding the allocation of resources in the implementation of prevention intervention (such as the Life Skills program), evidence for the effectiveness of this strategy to result in the intended outcomes is crucial. Indeed, findings from the current study suggest that students who participated in the Life Skills program, demonstrated improved skills in acceptance and mindfulness, and in productive coping, as well as a reduction in fear of anxiety and symptoms of depression, as compared to those students who did not. Whilst the results of the current study must be considered preliminary, and should be interpreted within the context of the identified methodological limitations, these initial results suggest that further attention to the Life Skills program is warranted. The methodological strengths of the current study include: adherence to the evaluative process promoted within the framework suggested by the IOM, inclusion of a control group in the methodological design, and conducting the evaluation independently of the program developers. These factors increase the validity of the current findings. On the basis of this strong methodological foundation, the current researcher argues that the endeavour to continue to implement the Life Skills program in schools, whilst simultaneously continuing to improve program content and the design of further prevention trials, is justified.
Furthermore, the identification of a sample appropriate for an indicated prevention program within the current study suggests that these types of preventive services are indicated within the general population and wider community. Even though, on average, the participants in the current study fell short of meeting criteria for clinical diagnosis, the substantially elevated presence of clinical symptomatology experienced by participating youth deserves attention. Given that none of the participants were engaged with any other mental health service or receiving an alternative form of mental health intervention, as specified by the exclusion criteria, this evidence suggests that a proportion of young people who are experiencing mental health issues within high schools in Western Australia do not have access to the appropriate services. Therefore, the delivery of the Life Skills program within schools can be a way to provide the starting point in addressing the needs of these young people, who otherwise would not be provided with an opportunity to alter potentially dysfunctional developmental trajectories.

**Contributions to prevention science.**

The findings of the current study add to the growing body of research demonstrating the positive impact of prevention intervention in youth. Although there is currently no indication of the ability of the Life Skills program to avert the incidence of mental health disorder (the essence of prevention), results of the current evaluation have documented a decrease in risk (namely, the reduction of magnitude of depressive symptomatology) and an increase in protective factors (namely, an increase in acceptance and mindfulness skills, and an increase in productive coping). The IOM
purports this to be a worthwhile goal of prevention, irrespective of prevention of incidence of disorder. Therefore, the current study can be considered a valuable contribution to prevention science. In addition to this, previous prevention interventions that have typically been evaluated and described in the prevention literature have primarily comprised components heavily based in traditional Cognitive-Behavioural therapy approaches. The Life Skills program, by contrast, comprises various different therapeutic techniques from Cognitive-Behavioural, Dialectical Behaviour, and Acceptance- and Mindfulness-based models of therapy intervention, with the summation of therapeutic techniques focusing primarily on emotion regulation as a target for intervention. Thus, the current evaluation provides a somewhat unique and novel contribution to the prevention literature in its suggestion that other therapeutic techniques (namely the development of skills in emotion regulation), aside from traditional cognitive behavioural strategies are also able to effectively contribute to the prevention of further manifestation of clinical disorder.

Knowledge generation: Theoretical and clinical implications.

As well as investigating the impact of the Life Skills program on enhancing skills in emotion regulation and reducing clinical symptom severity, the current evaluation examined a mediational hypothesis relating to the effectiveness of the program ‘ingredients’ to effect change in the outcome. Overall, results from path analysis in the current study indicated that the improvement in depression and emotional symptoms in the prevention group relative to the control group were mediated by changes in the combined effects of acceptance and mindfulness, fear of emotions and
productive coping. This finding not only addresses deficits within the literature pertaining to how and why the changes in outcome variables occurred, but also has important implications for the field of emotion science.

More specifically, the current findings add support to the notion that emotion regulation is a clinically relevant construct that plays a vital role in the development and maintenance of diverse forms of psychopathology. This assertion is further emphasised, given that the study of emotion regulation as a key component of therapeutic outcome was examined when utilising a pre-adolescent / young adolescent sample that was heterogeneous in clinical symptomatology, as in the current evaluation. Furthermore, previous research examining aspects of emotion regulation involving acceptance and mindfulness processes has primarily been conducted within adult populations. Thus, findings from the current study provide unique empirical evidence to suggest that the measurement of these processes in youth is feasible.

Conclusions

The findings of the current evaluation suggest that further attention to the Life Skills program delivered in schools, as a way of addressing the mental health needs of young adolescents who are at-risk of developing further manifestations of clinical symptomatology, is warranted. The current research has attempted to contribute to the growing evidence-based literature pertaining to prevention science. The advancement of a comprehensive and parsimonious understanding of the development of clinical disorder is essential in facilitating progress in designing effective prevention
intervention. By ascertaining reliable risk and protective variables, researchers are able to proceed with organised investigation into the treatment and prevention of mental health disorder. In the context of prevention of depressive symptoms and emotional symptoms, the current results are highly suggestive of the role of emotion regulation in accounting for associations between program exposure and clinical outcome.


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APPENDIX A: Life Skills Program Manual

Life Skills

High School Early Intervention Program

Diane Ferguson
Rationale for Treatment:

Referral Criteria:

• Year 8 students
• Students experiencing some emotional or behavioural difficulties
• Students demonstrating poor coping or experiencing high level of stress
• Students who are in regular contact with school psychologist or student support service staff
• Students who are motivated and willing to attend

Exclusion Criteria:

• Students who are experiencing emotional and behavioural symptoms severe enough to meet criteria for a CAHS referral
• Students who are considered to be high risk with regards to suicide or self-harm
• Students who may already be engaged with other mental health services, or are receiving some form of mental health treatment
• Students who are engaged in other similar school programs

Psychometric Measures:

Adolescent Coping Scale
Rosenberg Self-Esteem Scale
Child Acceptance and Mindfulness Measure
Avoidance and Fusion Questionnaire for Youth
Strengths and Difficulties Questionnaire
Childhood Depression Inventory
Introduction

Time: 5 minutes
Equipment: None

• Welcome to the Like Skills Program. It's great that you could all come along. This group will provide opportunities to learn new skills for life- these are skills that everyone would benefit from knowing as they help you to create the type of life that you want to have.
• Introduce the leaders. Background of each of the leader’s roles and the types of difficulties that lead people to see mental health professionals and attend clinics. Normalise coping difficulties and compare to physical health.
• People often feel anxious and nervous when they first come along to a group. It most often becomes easier as we get going.
• The group is designed to practice and teach new skills. We will get to know each other better but it is not a group where we will be expecting people to share all their personal details. We understand that you all go to school together and that everybody has some things that need to be kept private. When we ask for examples, they can be about everyday things that you have faced, such as fighting over the front car seat with your brother, or even situations that people you know have faced. If there are other things, more private things, that you want to discuss, we will ask you to see us after the group or to contact the school psychologist at school before the next group time. This group may lead some of you to want to work on developing these skills some more or to seek some counselling for other reasons and we can look at options of how you can go about this.
• Today we will get to know each other a bit, determine the rights and responsibilities of being in the group and start looking at emotions.

Icebreaker

Time: 10 minutes
Equipment: Positive Qualities Handout
Everybody traces around their handprint. Just as each of our fingertips are unique, we all have things that are unique about us. At each finger, everyone is to write down positive things about themselves to make a total of four positives. These can be special interests or talents that you have / what you enjoy doing. On the thumb, write down a goal or something you would like to get out of coming to the group. Then break into pairs and share their work with the other. Then each pair introduces the other to the group.

**Group rules / rights and responsibilities**
*Time: 10 minutes*
*Equipment: Butchers paper to record group rules*

- What makes you feel uncomfortable or comfortable about being in groups?
- Be sure to cover:
  - Confidentiality
  - Level of participation
  - Degree of self-disclosure
  - Respecting each other
  - Supporting each other
  - One person speaking at a time

**Feelings**
*Time: 30 minutes*
*Equipment: Butchers paper*

- In order to know how to cope with all the different feelings we can have, we first have to be able to identify what those feelings are. Different feelings can often require different types of coping skills.
- What are some common emotions or feelings? Write these down.
- How would you feel in different situations and how do you know you are feeling that way. How would you know what others are feeling? How can you tell that this person is feeling X emotion?
- NB: if time permits, start to get at why people have emotions as a lead in to further discussion on this subject next week.

**Closing**
*Time: 5 minutes*
*Equipment: None*

- Well done on making it through the first week. Over the next week before our next group, start trying to notice when all these different types of emotions come up for yourself and other people. Next week we will look at feelings in more detail and look at ideas for how to handle your own and other's feelings.
Introduction

**Time:** 10 minutes  
**Equipment:** Butchers paper and “how do you feel today?” worksheet (pictures of faces)

- Review group rules from last week. Last week we came up with some rules for our group. Who can tell me what these are?
- Review goals that participant’s identified last time and how we plan to incorporate these into the group
- Feelings: last week we looked at common emotions and how we guess how people might be feeling. Let's now brainstorm different emotions. Who can tell me an emotion? Record these on butchers paper then hand out “how do you feel today?” worksheet (pictures of faces)

Emotions Activity 1

**Time:** 10 minutes  
**Equipment:** Pictures / Feeling cards  
*Why we have emotions handout*

- Look at pictures of people on the cards to identify feelings and reasons for these. Give each person one card. Go around the circle and ask participants to identify the emotion and give a reason why the person in the picture may be feeling that way? Could do this exercise in pairs.
  - Try to draw out the following reasons:
    - To tell us to take action and protect us in dangerous situations (for survival)
    - To let others know what we are needing and help us communicate
    - Life would be boring without them- no jokes, entertainers etc. Would miss the highs and lows
    - They are a natural part of life- even animals have them
- What are some common views you’ve heard about emotions? For example: Is it okay to express emotions? Are some better than others? Etc
  Try to draw out the following myths:
  - Letting others know how I feel is a sign of weakness
  - Negative feelings are bad
  - There is a right way for people to feel in certain situations
  - Sometimes feelings can be wrong
- It is important to be able to label your feelings to know why they are there and what to do about them. Labeling is the first step.
- Once you become aware of your emotions, the next step is to accurately communicate these to others. Why do you think it's important that others receive the message we are sending? What does it feel like when it seems that people do get the message versus when they don’t seem to get the message?
- At the end of this discussion distribute the why do we have emotions handout?

**Emotions Activity 2**

*Time: 15 minutes*
*Equipment: Emotions have helped me to… handout*

Lets think of times when emotions have been helpful to you
Lets talk about situations in which you found that emotion to be helpful
Describe what you experienced and what you did
Encourage participants to record these discussions on worksheet

**Emotions Activity 3 (if time permits)**

*Time: 10 minutes*
*Equipment: None*

Non-verbal role plays of feelings- work out how the person is feeling without the person talking
Use handout of cartoon characters showing different types of feelings to help students chose those they will replay and see being role-played

**Homework**

*Time: 5 minutes*
*Equipment: None*

Try to identify the different feelings you have throughout the week. Check whether your strongest feelings are linked to a particular thought, or something you do.
Why do we have emotions handout session 2

**Why Do We Have Emotions?**

To tell us to take action and to protect us in dangerous situations (for survival)
To let others know what we are needing and help us communicate
Life would be boring without them-no jokes, entertainers etc. Would miss the highs and lows
They are a natural part of life- even animals have them

Other ideas discussed in the group:
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

**Some Facts about Emotions**

It is important to express how you feel in an effective way
It is not a sign of weakness to let others know how you feel
It’s okay to feel negative or unhappy sometimes
There is no right way to feel in any situation
Feelings are not right or wrong- they are just what you feel

Other facts discussed in the group:
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Emotions have helped me to…handout session 2.

Let’s do an exercise to help you think of and become aware of times when emotions have been helpful to you. Describe what you experienced and what you did….

Joy and love have helped me to….

_______________________________________________
_______________________________________________
_______________________________________________
_______________________________________________

Fear has helped me to….

_______________________________________________
_______________________________________________
_______________________________________________
_______________________________________________

Guilt has helped me to….

_______________________________________________
_______________________________________________
_______________________________________________
_______________________________________________

Anger has helped me to….

_______________________________________________
_______________________________________________
_______________________________________________
_______________________________________________
When to Relax?

- What are the times you need to use relaxation? Can particularly help in situations where you cannot do anything to change things
- Review the body cues associated with different emotions. Draw up a body on the board / butchers paper to show all the clues the body can give that it is under stress. These include:
  - Butterflies in the stomach
  - Heart pounding
  - Breathless
  - Lump in the throat
  - Sweaty palms
  - Shaky voice
  - Muscle tension
  - Dry mouth

Mindfulness

*Equipment: Mindfulness handout*

- Mindfulness is another way to help you gain more control over your thoughts and feelings and to have a more relaxing and enjoyable life
- Often in our busy lives, we can go for a long time without noticing or appreciating the messages that we are getting from our senses. Instead we focus on worries and lots of other more complicated things
- Mindfulness is about getting back to basics and it’s amazing how much of a difference it can make in your everyday experiences
- (write on board) Mindfulness is:
  - Being aware
  - Being focused on the present
  - Being non-judgmental
• It involves focusing in on one thing at one moment in time. It takes practice- it might seem hard or strange at first.
• It involves observing, describing and participating in what’s going on inside and outside yourself
• Practice-Observing: Observe thoughts, feelings (i.e. emotions) and sensations within yourself.
• Practice- Describing: Describe your thoughts, feelings and sensations- know what is a thought, a feeling or sensation.
• Practice- Non judgment: There is a difference between stating facts and judging e.g., “there is a black swan” versus “I like/ hate black swans” or “there goes the wind over the lake” versus “that wind is cold.” It’s difficult not to judge, but try to just state the facts

Eating Mindfully

Equipment: Lolly Snakes

• Eating mindfully: Give out lollies and ask each participant to participate fully in the moment of eating that lolly- practice observing and describing the experience in a non judgmental way. In pairs or as a group, ask participants to describe the experience

• “Throughout this exercise, all sorts of thoughts and feelings will arise. Let them come and go, and keep your attention on the exercise. If you realise that your attention has wandered, briefly note what distracted you, then bring your attention back to the lolly snake.

Take hold of the snake

First look at it as if you’re a curious scientist who has never seen such a thing before. Notice the shape, the colour, the different shades of colour, the parts where light bounces off the surface, the contours, the imprints on the snake’s body.

Notice the weight of it in your hand and the feel of the snake against your fingers: its texture and temperature.

Raise it to your nose and smell it. Notice the aroma.

Raise it to your mouth and pause for a moment before biting into it. Bring your attention to what is happening inside your mouth: notice the salivation around your tongue and the urge to bight into it.

Now slowly bite into it, noticing your teeth breath through the skin and sinking into the flesh and the sound that makes, and the sensation of sweetness on your tongue.

Notice your teeth meeting, and the feel of the snake falling onto your tongue, and the urge to chew it and swallow it.
Chew it slowly, noticing the taste and texture. Notice the movement of your jaws, the sound that chewing makes, the sensation of the lolly breaking down. Notice how your tongue shapes the food.

Notice the urge to swallow- and as you do swallow, notice the movement in your throat and the sound it makes.

And after you’ve swallowed, pause and notice the way the taste gradually disappears from your tongue. Notice your growing urge to eat the rest.

Now eat the rest of the snake in the same way.

**Mindfulness in Practice**

*Equipment: None*

- Whatever you are doing, pay full attention to it- when you are eating, focus on eating, when you are walking focus on walking etc.
- What is it like to not be mindful? Think of times when you have tried to do a few things at once and what is this like?

**Mindfulness and Negative Emotions**

*Equipment: Sheets of coloured paper*

- We can use mindfulness to reduce emotional pain through observing, describing and accepting negative emotions and then letting them go.
- If we accept and don’t fight against our feelings, it’s easier to let them go. If we block them (that is, avoid them), this increases the power and strength of that negative feeling. This usually leads to more pain and to the feeling becoming more overwhelming.
- Life will continue to be full of ups and downs for everybody- experiencing painful emotions at some point of our lives is inevitable. Painful emotions come for a reason- it feels like they stay around for ages sometimes, but like waves on a beach, they can come and they will go again.
- By allowing and making room for our all our feelings, we can go with the feeling until it goes down and come out the other side, riding the wave of the feeling. Through doing this, we can see that we are able to cope with difficult times.
- Now we are going to play a little game with the thoughts that bother you at school. Usually when the thoughts start to show up, you grab onto them and struggle with them. We are going to do something- not make them go away- but play with them a little differently. We are going to make paper airplanes and use the thoughts that get in your way as the name for the planes. We will write those thoughts on the side of the plane. It is your job to watch the airplanes as they fly by without trying to grab the thought plane or trying to keep it in the air.
Ways to Relax

Equipment: Butchers paper

- Discussion around things that people currently do to relax e.g. listening to music, playing sport etc.
- If time permits, “Still quiet place” activity. Get students to spread out in the room and sit comfortably.

“I would like to introduce a place to you- it is called the still quiet place. It’s not a place you travel to in a car, or a train or a plane. It is a place inside you that you can find just by closing your eyes. Let’s find it now.

Close your eyes and take some deep slow breaths. See if you can find a kind of warm, happy smile in your body. Do you feel it? This is your quiet still place. Take some more deep breaths and really snuggle in. The best thing about your still quiet place is that it’s always inside you. And you can visit it whenever you like. It is nice to visit your still quiet place if you are feeling angry, or sad or afraid. The still quiet place is a good place to talk with these feelings and make friends with them. When you rest in your still quiet place and talk to your feelings, you may find that your feelings are not as big and powerful as they seem. Remember you can come here whenever you want, and stay as long as you like.”

During the week

- Practice mindfulness. Chose an activity, e.g., eating dinner, having a shower, walking to school and do this mindfully. Remember what it is like for discussion next week.
Mindfulness

- Mindfulness is:
  - Bringing your attention to the here and now experience
  - Noticing things (sensations, sights, sounds, tastes, and thoughts) in a non-judgemental way
  - Being open and interested in these things (sensations, sights, sounds, tastes and thoughts)
  - Often our minds tend to wander off and get hooked by a thought. Mindfulness can help us unhook ourselves from our thoughts and bring our attention back to the here and now
Review

• How did people go with trying relaxation and mindfulness following last session? Would anyone like to share their experiences? How would you find continuing to use these techniques? What would be easy and hard about continuing with these?

Mindfulness Practice

• Activity: Spread around the room and sit comfortably. Close your eyes and watch your thoughts and feelings go past inside your head like they are just floating past on waves or floating up like bubbles in lemonade. Try to keep watching them float by without going into any thought or feeling in too much detail. At the end of this activity direct discussion towards, how did you find that exercise? How easy / hard was it?

• Activity: Get participants to sit in their chairs, anchor their attention on the breath, and then begin to watch their thoughts go by as if they are watching a parade. They may notice that some thoughts are loud and brightly dressed, other thoughts that are shy and lurk in the background, and still others come back again and again. If you start to notice that you are marching in the parade (i.e. lost in thought), you are encouraged to return to the sidewalk and simply watch the thoughts go by. In this way, you are able to watch your thoughts without believing them or giving them too much power.

Today

• Practical ways of reducing emotions from becoming overwhelming
**Looking after yourself**

- Reduce chances of overwhelming emotions through having a balanced lifestyle. This is basic stuff that most people know about. It’s easy to say but hard to do - it’s important to make a realistic plan of how to improve your lifestyle and reward yourself for sticking to it.
- **Lifestyle balance**
  - Keep healthy and treat any health problems
  - Balanced eating
  - Reduce / avoid mood altering drugs
  - Develop good sleeping patterns
  - Regular exercise - there is evidence to show that this improves mood and concentration

**Steps to increase positive emotions**

*Equipment: Ideas of pleasant events handout  
Weekly schedule handout*

- What can you do to increase the chances of feeling positive emotions? What are the feelings you get after engaging in pleasant events? What are some examples of pleasant events / activities?
- Distribute handouts and explain the beneficial impact on mood when engaging in pleasant activities.

**Acting opposite to emotions**

*Equipment: Acting opposite to emotions handout.*

- Sometimes acting opposite to how you feel can change the way you are feeling.
- For example, one way to lift depression is to get active (the opposite to what people feel like doing when they are depressed). People with anxiety problems learn to face their fear.
- Need to work out first what the emotion is and what action usually goes with it. Then the idea is that if we can change the action, we can change the feeling.
- Activity: partner work - think of some times where you were feeling negative and look at how you could have acted opposite and how that might have worked. Complete handout in these pairs.

**Distress Tolerance Skills**

*Equipment: Distress tolerance handout.*
• These are to be used in a situation where the distress is intense but it is not an appropriate time to express the emotion and where you cannot change the painful emotion at that time. For example, fire alarm and smoke in a shopping centre- you have to tolerate the distress at the time so you can focus on surviving. After the situation is over, you can express your emotions and look at what happened.
• There are also sometimes situations where its often not an appropriate time for working on painful emotions. For example, during school lesions, people may feel emotional. However it may not be possible to address the problem at that time and thus, they may have to tolerate the feeling until later when they can process the pain. Remember- tolerating pain is only for the short term- it's important not to distract from the pain forever- that is avoiding facing the difficult feelings.
• Surviving crisis situations/dealing with difficult feelings is part of coping well with life. Sometimes focusing on how bad we feel stops us from surviving as well in a difficult situation. This is always a balance.
• Distracting and self-soothing- You might want to practice some of these skills in session, like how to distract mentally by counting certain things around the room, or lighting a scented candle.

**Finish with relaxation exercise**

*Equipment: None*

• Imagery exercise
• Close your eyes
• Imagine you are at your favourite beach. Look around you- what do you see? Do you see a beautiful blue water softly edging its way forward on the warm yellow sand? What do you feel? Do you feel the warm ocean breeze gently blowing past you and warming you up? Do you feel the warm sand beneath your toes, inviting you to come closer to the water? What do you hear? Do you hear the gentle sound of the waves crashing? Are there people there playing around in the water having fun or are you on your very own private beach? What do you smell and taste? Is it fresh, salty air straight from the ocean? Or the smell of a fresh barbeque cooking in the distance? Experience this beach for a while with all your sense- imagine it to be just how you would want it to be and enjoy being there for a few more moments.
• Ask them to open their eyes and say how they found this exercise
• Ask them to try using imagery at various times during the week

**During the week**

• Recap skills learnt this session and encourage practice during the week, for discussion next session.
Pleasant events handout session 4

Ideas of Pleasant Events

★ Soaking in the bathtub
★ Collecting things
★ Thinking about what it will be like when you finish school
★ Relaxing
★ Going to a movie
★ Walking
★ Thinking of all the work I have done today
★ Listening to music
★ Lying in the sun
★ Laughing
★ Thinking about past holidays
★ Reading magazines
★ Spending time with friends
★ Remembering a beautiful place you have seen or want to go to one day
★ Eating chocolate/lollies
★ Swimming
★ Flying kites
★ Singing around the house
★ Going to the beach
★ Thinking I’m an OK person
★ A day with nothing to do
★ Thinking about travelling overseas one day
★ Painting
★ Playing musical instruments
★ Making a gift for someone
★ Arts and crafts
★ Buying something for yourself
★ Cooking
★ Writing books (poems, articles)
★ Going out to dinner
★ Going to plays and concerts
★ Daydreaming
★ Going for a drive
★ Watching TV
★ Going bike riding
★ Making a list of goals
★ Completing a task
★ Going to a spectator sport (football, horse racing)
★ Photography
★ Thinking about pleasant events
★ Playing with animals
★ Reading a book
★ Writing diary entries or letters
★ Going on a picnic
★ Thinking “I did that pretty well” after doing something
★ Thoughts about happy childhood moments
★ Playing cards
★ Doing crossword puzzles
★ Playing pool
★ Dressing up and looking nice
★ Talking on the phone
★ Playing on the computer/playstation
★ Going to museums
★ Lighting candles
★ Listening to the radio
★ Getting a massage
★ Saying “I love you”
★ Thinking about my good qualities
★ Buying books
★ Going bowling
★ Woodworking
★ Fantasising about the future
★ Going horseriding
★ Doing something new
★ Jigsaw puzzles
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**Example:**
- Go for a walk
- Feelings: Happy, Refreshed
Acting Opposite to Our Emotions

★ Sometimes acting opposite to how you feel can change the way you are feeling

★ For example, when feeling depressed and like you don’t feel like doing anything, the best thing you can do is to get active and do something.

★ When feeling anxious, you feel like avoiding the situation – the best thing to do is act opposite and face your fear

★ When feeling angry, you can feel like attacking the other person – acting opposite means walking away from the situation.

★ Need to work out first what the emotion is and what action usually goes with it. Then, if we can change the action through acting opposite, then we can also change the way we are feeling.
Distress Tolerance Handout session 4

**Distress Tolerance**

★ We all experience crisis times where we feel distress but cannot change the situation or feel so overwhelmed by our feelings that we can’t figure out how to change them.

★ It is in these situations that you can use distress tolerance skills to get you through until you are able to deal with the feelings and the situation effectively.

★ These skills help you to get through the situation by reacting in ways that will help, rather than in ways that could make the situation worse.

★ It can be helpful to use distraction in these times – as a short-term measure. Remember however that avoiding can work in the short-term but causes more problems in the long-term. This means it is important to take the time at some point to fully understand your thoughts and feelings in the situation

**Distraction:**

**Physical Distraction**
Doing something else- exercise, going out etc. Look at your pleasurable events list for more ideas.

**Mental Distraction**
Count to 10, count things around count backwards from 100, think about something you have enjoyed in the past or are looking to in the future.

**Self-Soothing**

**Sight**
Look at a beautiful flower; make your room look better; light a candle and watch the flame. Go to the art gallery to see beautiful art. Look at nature around you- leaves on trees, sun shining, blue sky, white fluffy clouds. Walk in a scenic place, such as the beach, a nice garden, lake or park. Look at the beautiful pictures in a book or on the internet. Be mindful of each sight that passes in front of you.

**Sound**
Listen to music that makes you feel good, whether it is beautiful and soothing or loud and exciting. Listen to sounds of nature around you like the waves crashing on the beach, birds singing, rain falling down. Sing along to songs. Be mindful of any sounds around you.
**Smell**
Smell your favourite perfume or moisturisers, or try them in a shop. Light a scented candle. Bake something- a cake, biscuits or bread. Breathe in the fresh smells of nature, particularly in a natural environment such as the bush or beach.

**Taste**
Eat your favourite food, have your favourite drink or a soothing drink such as a hot chocolate, have a nice dessert as a treat. Have a lollipop or some lollies or chewing gum. Get a little bit of special food that you don’t usually get to eat. Taste the food mindfully/

**Touch**
Have a bubble bath. Cuddle with your dog or cat. Soak your feet; put moisturiser on your body. Sink into a really comfortable chair or couch. Give someone a hug. Experience whatever you touch mindfully.

**Mind / Self**
Be your own cheerleader- repeat to yourself “I can get through this”, “it wont last forever”, “I will be okay once I get through this,” “I'm doing the best I can.”
LIFE SKILLS GROUP 5

Goals
• Follow up on homework
• Relaxation and mindfulness practice
• Link between thoughts and feelings
• Homework on practicing these skills

Review
• How did people go with the skills we discussed last week?
• Would anyone like to share their homework experiences?

Thoughts and Feelings
• Look at pictures of people and animals in different situations (in file)
• People to guess how the people pictured might be feeling and therefore, also what they might be thinking
• Look at how they can have different ideas of how people might be feeling and thinking, even based on the same picture
• Discuss the link between thoughts and feelings- look at how we can have a choice about how we think about different situations and that this can also impact on how we feel about these situations

Experiential Exercise
Equipment: Thoughts, Feelings and Behaviours handout
• Suppose you are at home by yourself on a winter night and suddenly you hear a loud thud outside your window. How will you react? That will depend on what you tell yourself about the noise. If you tell yourself it is just the wind and wintry weather then you will turn and fall back asleep. BUT if you think' there is a burglar at my window trying to break in', then fear and panic will set in and you may reach for the phone or stay awake all night etc.
• Thoughts are not facts- they are just guesses or interpretations of situations. So you can have lots of different thoughts about a particular situation, e.g., giving a presentation
• 1) “Everyone will think I am dumb, I am not good at public speaking, what if my face goes red or I forget what I am saying?”
• 2)“ I really don’t like public speaking but I can handle it, I only have to talk for a short time and I doubt many people will be paying attention anyway”
• The thoughts you settle on will determine how you will feel and what you will do. So it is important to “shop around” to choose the best thought for you
• Changing your thinking is a habit you can develop but only through practice

**What I Feel, Think and Do**
*Equipment: What I feel, Think and What I do handout*

• Look at how these three interact with each other and how we are learning about different ways to make changes in these three areas
• What I feel – identifying feelings and communicating these
• What I think – identifying negative thoughts and learning to challenge these
• What I do – learning skills to make lifestyle changes to reduce the changes of negative emotions, learning more about relationships to prevent conflict and learning relaxation/mindfulness skills to handle emotions differently
• Of course, what we think, feel and do is impacted on by other things that we cannot control to the same extent – such as what events will happen in our lives and to people we care about, how things have been in the past etc

**Noticing Our Self-Talk**
*Equipment: Noticing Our Self-Talk Handout*

• Exercise: break into groups of two or three. Think of the last time you were in a difficult situation and complete the handout. Share your experiences with your peers
• Re-group and ask participants if anyone would like to share their experiences with the whole group

**Relaxation**
- Practice mindfulness

**Home Practice**
*Equipment: Practice at Home Handout*

• Notice your thoughts during the week and identify any thinking traps. Complete practice at home worksheet to discuss next session
Thoughts Feelings and Behaviours

The way we think about things has a huge impact on the way we feel and behave.

Changing the way we think about things will change the way we feel.
What I Feel, Think and Do Handout Session 5

What I Feel, Think and Do

What I do
What I think
What I feel

★ What I feel – identifying feelings and communicating these

★ What I think – identifying negative thoughts and learning to challenge these

★ What I do – learning skills to make lifestyle changes to reduce the chances of negative emotions, learning more about relationships to prevent conflict and learning relaxation/mindfulness skills to handle emotions differently

★ Of course, what we think, feel and do is impacted on by other things that we cannot control to the same extent – such as what events have happened/will happen in our lives and to people we care about, how other people act etc
Noticing Our Self-Talk Handout Session 5

**Noticing Self-Talk**
Think back to situations you were in over the past week and notice your self-talk during these times. Write down two situations below (one positive and one negative) in order to start practicing noticing your thoughts and feelings.

*Positive Situation*
Situation: (e.g. watched a video with a friend)
________________________________________________________________________
________________________________________________________________________
Feelings: (e.g. happy, excited)
________________________________________________________________________
________________________________________________________________________
Thoughts: (e.g. “This is a great movie”, “We had a great day”)
________________________________________________________________________
________________________________________________________________________

*Not-so Positive/Negative Situation*
Situation: (e.g. had an argument with my friend at school)
________________________________________________________________________
________________________________________________________________________
Feelings: (e.g. angry, sad, lonely)
________________________________________________________________________
________________________________________________________________________
Thoughts: (e.g. “He / she doesn’t want to be my friend anymore”, “He/ she thinks I’m uncool”)
________________________________________________________________________
________________________________________________________________________
Practice at home

During the week notice your self talk and write down two situations to start practicing noticing your thoughts feelings and behaviours.

What happened? (e.g. had a fight with my brother)

My feelings were (e.g. angry, sad)

My thoughts were (e.g. “He is so mean to me all the time”)

My behaviours were (e.g. screamed at him, broke his cd)
Goals

- Follow up on homework
- Re-visit link between thoughts and feelings
- Thinking styles
- Common thinking traps
- Homework on practicing these skills

Review

- How did people go with noticing self-talk during the week? Would anyone like to share their experiences?

Types of Thinking Styles

*Equipment: Common Thinking Errors Handout*

- Sometimes we can make ourselves feel worse than we would normally feel about different situations because of the way that we think about what happened and why
- We have all heard of pessimists and optimists – discussion around this and difference between the two. Discuss whether there is a middle position between these two and what this position would be like.
- Can anyone give an example of thinking about a situation in an optimistic way? Can anyone think of an example of thinking about a situation in a pessimistic way?
- Give out handout and go through content as a whole group. Then get participants to split into smaller groups and identifying the most common thinking errors they experience and examples of these

Thinking Traps

*Equipment: Challenging our thinking Errors Handout*

- Most common are:
  - Catastrophising – “This is the worst thing that could happen”  Black and white – “I am never good at anything”
  - Mind reading – “She thinks I’m stupid”
  - My fault – “It’s my fault she doesn’t like me”
- Give out handout- Has anyone seen these before? Can you give examples of falling into these traps?
**Thought Challengers**

- steps:
  1. Identify what we are telling ourselves (self-talk)
  2. See what traps we are falling into
  3. Challenge the negative self-talk
- 3 main ways of challenging unhelpful thoughts:
  - “What is the evidence for thinking this way?”
  - Look for alternative explanations – “Is there an alternative way of looking at this?”
  - Decatastrophising: “Am I expecting the worst to happen?”
  - Look at how the previous activity could have been different with the thought challengers inserted – act this out
  - Activity: Rapid fire challenging – each person takes turns sitting in the “hot seat” and challenging the thought that is said to them.

**Homework**

- Practicing challenging your own thoughts during the week
Common Thinking Errors Handout Session 6

Common Thinking Errors

Most of us make some common thinking errors from time to time. Thinking errors are irrational patterns of thinking that cause us to feel bad, and sometimes to behave in self-defeating ways. Whenever you find yourself feeling upset (e.g. anxious, angry, depressed, resentful, guilty, ashamed etc) look for any thinking that might be contributing to the way you feel.

Here are some common thinking errors........

1. **Black-and-white thinking**
   When you are thinking in black-and-white, you see everything in terms of good or bad. Either you’re a legend or a loser; if you’re not a model look-able then you must be ugly; if you do something wrong then you are completely bad. You see everything as either good or bad, with no in-betweens.

2. **Unreal ideal / unfair to compare**
   Another common thinking error is making unfair comparisons between certain individuals and ourselves. When we do this, we compare ourselves with people who have a specific advantage in some area. Making unfair comparisons leaves us feeling inadequate and not OK.

3. **Filtering**
   When we are filtering we do two things: first, we focus on the negative aspects of our situation and secondly, we ignore or forget about all the positive aspects.

4. **Personalising- the self-blame game**
   When we personalise, we feel responsible for anything that goes wrong, even when it is not our fault or responsibility.

5. **Mind-reading**
   We often think we know what other people are thinking. We assume that others are focused on our faults and weaknesses- yet so often we are wrong.
6. **Catastrophising**
   When we catastrophise we exaggerate the consequences when things go wrong, and we imagine that things are or will be disastrous.

7. **Labelling**
   When we use labelling we call ourselves (or other people) names. Instead of being specific (e.g., ‘that was a silly thing to do/say), we make negative generalisations about ourselves or other people (e.g. ‘I am ugly’, ‘I am dumb’ ‘I am a loser’, ‘I am boring’ ‘She is an idiot’ ‘He is a creep’
Challenging our thinking errors

1. Reality testing
   - What is the evidence for and against my thinking?
   - Are my thoughts factual, or are they just my interpretations?
   - Am I jumping to negative conclusions?
   - How can I find out if my thoughts are actually true?

2. Look for alternative explanations
   - Are there any other ways that I could look at this situation?
   - What else could this mean?
   - If I were being positive, how would I perceive this situation?

3. Putting it in perspective
   - Is this situation as bad as I am making it out?
   - What is the worst thing that can happen? How likely is it?
   - What is the best that can happen?
   - Is there anything good about the situation?
   - Will this matter in 5 years time?

4. Goal-directed thinking
   - Is thinking this way helping me to feel good or achieve my goals?
   - What can I do that will help me to solve the problem?
   - Is there something I can learn from this situation, to help me do it better next time?

5. Some more ideas for challenging unhelpful thoughts
   - What would I tell a friend in this situation?
   - Am I expecting myself to be perfect?
   - Am I being too hard on myself?
   - Am I focusing too much on the negatives and not the positives?
   - Can I really know what people think of me?
   - Does it really matter what other people think of me?
LIFE SKILLS GROUP 7

Goals
- Follow up on homework
- Look at how to form and maintain relationships and how to deal with other people’s emotions (listening, validation)
- Ways to communicate (including non-verbal communication, use of different mediums)
- Three main styles of communication (aggressive, passive and assertive)
- How to communicate effectively using whole messages

Review
- How did people go with thought challenging during the week? Would anyone like to share their experiences?

Body Language
- Facilitators act out a scene without using words
- Group guesses what is being communicated
- Discussion around how we can also communicate without words and how important non-verbal communication is

- Some key things to look out for in non-verbal communication:
  - Eye contact
  - Body posture
  - Facial expression
  - Gestures
  - Personal space
  - Proximity to each other

Assertive Communication

*Equipment: Assertive communication handout*

- How do you communicate your thoughts and feelings? What do you find are the most helpful and least helpful ways to get people to listen to you?
- Shape the discussion into three main styles of communicating:
  - Aggressive
  - Passive
  - Assertive
Using one of the examples the group has talked about in eliciting how they communicate their thoughts and feelings, go through the three steps of assertive communication

- What happened? (Step 1: Describe the situation)
- Did you let the person know how it made you feel? (Step 2: Say how you feel)
- Did you let them know what you want to happen? (Step 3: Say what you want)

Does the language you use while being assertive make a difference? What is assertive language: ie, “I” language. What would be the difference between saying, “You are so annoying when you tease people” vs “I find it annoying when you tease people”?

Activity: Each person in the circle asks the next person an unreasonable request, such as “Will you complete all my homework for me for the rest of the week?” and the person being asked then has a chance to practice how to say no assertively.

Discussion around how everyone found this activity
Discussion what other factors are important including body language, tone of voice etc.
Discussion around what can make it feel difficult to say no sometimes.
These are skills that you have covered before to help you deal with bullying.

Active Listening

- How do you show others that you are listening and have heard what others tell you?
  - Using prompts and body language that encourage the person to continue speaking (eg nod, smile, “mmm”, “yes”, “I see”, posture turned towards the speaker, eye contact)
  - Reflect back in your own words on what the speaker has been saying and/or feeling (e.g. it sounds like you’re saying that this happened and that you’re feeling hurt)
  - Checking out more details (e.g. then what happened?)
  - Taking turns in conversation and not interrupting
  - Again going around the circle, each person tells the next person one thing that happened to them recently and the other person shows they are listening through body language, prompts and reflecting back what they understood.

Text Messages and Email/the Internet

Discussion around how effectiveness of these tools for communicating. What are some advantages and disadvantages? (particularly with text messages providing only minimal communication information which can result in communication being ineffective at times).
• Give an example of how one message (e.g. “ok c u l8r then”) can be seen through different eyes.
• What does this mean people need to remember when communicating with text messages?

**Practice Mindfulness (to close the session)**
- Mindfulness exercises

**Home Exercise**
- Notice more how you and others communicate. Notice body language and identify whether passive, aggressive or assertive styles are used.
Non-Verbal Communication
Some key things to look out for in non-verbal communication:
★ Eye contact
★ Body posture
★ Facial expression
★ Gestures
★ Personal space
★ Proximity to each other

Three Main Styles of Communication
Passive
★ Tending not to express thoughts or feelings or expressing them in an apologetic or weak manner so that it is easy for others to disregard them. This means that others can tend to make decisions for passive people and they may feel like they have little control over life at times.
★ Passive people communicate the message to others that they are not important people and that they will put up with almost any behaviour from others.
★ Often this is a way of avoiding conflict and trying to please others.

Verbal and Non Verbal Clues
★ Mumbling
★ Not being clear in what you are saying to others
★ Often apologising
★ Unsteady sounding voice
★ Not making eye contact; tending to look down
★ Slouched shoulders; standing away from people

Advantages
★ People often see you as selfless and helpful
★ If you don’t make decisions, you’re less likely to be blamed if they go wrong
★ You can avoid conflict sometimes

Disadvantages
★ You can end up doing lots of unreasonable tasks for people because you find it difficult to say no
★ People can easily disregard how you feel
★ People can treat you like you aren’t important
★ Usually people can only be passive for so long – then all the anger and frustration that has been bottled up can explode. In extreme cases, this can lead passive people to become aggressive at times or to have a high degree of anxiety or even a nervous breakdown.

Aggressive
★ Tending to express thoughts and feelings in an aggressive way that violates the rights of the other person.
★ Communicates the message that the person will do whatever it takes to get what they need and that others needs are not important
Verbal and Non Verbal Clues
★ Standing close to another person – “in their face”
★ Intense eye contact, staring
★ Intrusive gestures such as finger pointing
★ Making threats
★ Name calling
Advantages
★ Others may do what you ask them, and quickly
★ You may get what you want and feel in control of people and situations
★ You appear less vulnerable to others
Disadvantages
★ This behaviour can lead others to not like you and even become aggressive in their responses. This can make life seem dangerous and scary at times.
★ It takes a lot of energy to be angry and aggressive. It can be stressful.
★ Relationships are likely to be unstable because they are so one-sided and there is so much negative emotion.

Assertive
★ Expressing thoughts and feelings in a honest and open way while also respecting others’ thoughts and feelings
★ If their needs aren’t met, they may feel sad or disappointed but their self-esteem won’t be shattered.
★ Assertive people treat others as they wish to be treated
★ “I won’t allow you to take advantage of me and I won’t attack you for being who you are”

Verbal and Non Verbal Clues
★ Active listening
★ Clear speaking voice
★ Good eye contact
★ Standing upright, shoulders back
★ Allowing personal space for other person
★ “I” statements
★ Working on negotiating with the other person

Advantages
★ You are likely to feel better about yourself the more that you can stand up for yourself and communicate your needs
★ More likely to get your needs met
★ Expressing negative feelings at the time means they are less likely to build up and get worse

Disadvantages
★ May take some practice to become assertive
★ Others may not be used to you being assertive at first and may not like it
There will still be some communication and relationship

**Three Steps to Assertive Communication**
- Step 1: Describe the situation
- Step 2: Say how you feel
- Step 3: Say what you would like to happen

Important: Remember to use “I” language For example, “I feel hurt when you use bad language” versus “You hurt me when you use bad language”

**Talking Yourself Into Being Assertive**
- It’s OK to want or need something from someone else
- I have a right to express how I feel
- I have a right to say “yes” and “no”
- I can cope if I don’t get what I want or need
- The fact that someone says no doesn’t mean that I should not have asked
- I can understand and like another person and still ask for what I want
- There is no law that says other people’s opinions are more valid than mine
- I have the right to make mistakes and to feel comfortable about admitting to them
- I may want to please people I care about but that doesn’t mean I need to please them all the time
- I have the right to make reasonable requests of others
- I am an important person too
- I have the right to be listened to and taken seriously
- If I say no to doing a favour for someone, it doesn’t mean I don’t like them. They will probably understand that too.
- I am under no obligation to say yes to people just because that is what they may want me to say
- I have the right simply to be myself without having to act for other people’s benefit
- I have the right to change my mind
- If I say no to someone and they get angry, it doesn’t mean I should have said yes
- I can still feel good about myself even when someone is annoyed with me

**Active Listening**
How do you show others that you are listening and have heard what others tell you?
- Using prompts and body language that encourage the person to continue speaking (e.g. nod, smile, “mmm”, “yes”, “I see”, posture turned towards the speaker, eye contact)
- Reflect back in your own words on what the speaker has been saying and/or feeling (e.g. it sounds like you’re saying that this happened and that you’re feeling hurt)
- Checking out more details (e.g. then what happened?)
- Taking turns in conversation and not interrupting
**Goals**

- Follow up on homework
- Relaxation and mindfulness practice
- Review group content - quiz show style
- Discussion of most memorable aspect of the group/ what was most helpful
- Other support services available

**Review**

- How did people go with noticing communication styles during the week? Would anyone like to share their experiences?

**Relaxation**

- Mindfulness exercise
- Deep breathing

**Quiz Show**

★ Today we are going to review all the things that we have learnt in a quiz show
★ Talk about how they want to set this up – like Who Wants to be a Millionaire or just standard question/answer format. Talk about how points/prizes will be allocated. Will they get to choose a category or spin the wheel to decide?
★ Categories of questions will be those we have discussed each week:
  - Feelings
  - Relaxing
  - Ways to increase positive emotions
  - Thought challenging
  - Communication
  - Assertiveness
  - Negotiating
  - Problem Solving

**Diary Cards**

★ These have all the strategies on them so you can choose what to do when feeling unhappy/distressed

**Experiences Participating in the Group**

*Equipment: Coloured Paper*

- Spend some time illustrating on a piece of paper, what you found to be the most memorable aspect of the group/ what stood out for you / what was most helpful /
what strategies you think you will continue to use. Share these with the whole group

**Services Available**
★ Talk about places they can go to and what it is like to go to counselling

**Quiz Questions**

**Feelings**
★ Name four different types of feelings
★ Describe some body clues you get when experiencing a particular feeling, such as anger
★ Give two reasons why we have emotions
★ Name two ways you can get clues about how other people are feeling

**Increasing Positive Emotions**
★ What does lifestyle balance mean? Does this affect your emotions and how?
★ Name some pleasant events you can schedule in to help increase the chances of positive emotions
★ What does acting opposite to your feelings mean? Describe using an example of one type of feeling.
★ When are the best times to act opposite to how you feel? When are the worst times?
★ Name some different ways you can distract yourself from difficult feelings. Should you distract yourself all the time?

**Relaxing**
★ What are some body clues you would notice that you show you are anxious and need to use a relaxation strategy?
★ What are 3 kinds of relaxation we covered in the group?
★ Demonstrate how to do slow breathing
★ Describe something you could visualise when feeling stressed
★ What is mindfulness?
★ Describe one type of mindfulness exercise you can use with one of your senses
★ What is one way to imagine your feelings being like when using mindful
Thought Challenging
★ Give an example of a negative thought
★ Change a negative thought into a positive thought
★ Name the four common types of thinking traps/errors
★ What type of thinking error does this thought fall into – “I know they don’t like me”
★ Challenge the following thought – “I can’t do anything right”

Communicating
★ Name three ways you can show someone you are listening to them
★ Demonstrate body language of listening
★ What is active listening?

Assertiveness
★ A student in your year says something nasty to you. What would be your response? What type of response is that?
★ Name the three different types of communication styles?
★ Name some advantages and disadvantages of being aggressive
★ Your sister teases you about something very private and important to you. Show assertively how you could let her know about the effect this has on you and what you would like to happen.
★ What do you call the type of language you use when being assertive?
★ Demonstrate what passive body language and tone of voice looks like
Support Services

24 HOURS COUNSELLING PHONE NUMBERS
CRISIS CARE 9325 1111
Samaritans 24 HOUR YOUTHLINE 9388 2500
Kids Helpline 1800 55 1800
Princess Margaret Hospital 9340 8222
Joondalup Health Campus 9400 9400
Osborne Division of General Practice 9201 0044 Ask for the Youth Friendly GP’s in your area.

Other Support Services

Youth Focus Ph: 9361 4222 Youth focus is a service committed to helping young people between the ages of 14-18 with significant life difficulties offering:
• Ø Individual counselling and support
• Ø Family counselling and support
• Ø Peer support camps
• Ø Group work programs
• Ø Mentoring

Centrecare Ph: 9325 6644 Centrecare has a counselling and mediation service for parents/caregivers and young people aged 10-21 years for when parents and young people aren’t getting along. Centrecare’s Parent-Teen Link service assists families when conflict between parents and teenagers threatens family life.

Next Step Youth Services Ph: 9442 5000 For young people with alcohol and drug problems who require the services of a multidisciplinary health team.

Killara Youth Support Service Ph: 9470 9255 Killara is an outreach support service for young people and their families who are having problems which are attracting, or may attract, the attention of the Police and the law.

Hillarys Child and Adolescent Centre Ph: 9403 1999 A counselling service for young people up to age 18 and their families. Assists with more serious emotional difficulties such as depression, self harm, eating disorders, anxiety disorders and serious family relationship difficulties. A referral is required to access this service from a GP or School Psychologist. A Duty Officer is available from 11am-2pm each day to answer queries about the service and whether a referral is appropriate. There are similar clinics in Clarkson, Warwick.
APPENDIX B: Questionnaire Package

Young people have a number of problems or worries relating to work, family, friends or the world in general.

Below is a list of ways in which people your age COPE with a wide variety of problems or worries. Please indicate by circling the appropriate number to show, THE THINGS YOU DO TO DEAL WITH YOUR PROBLEMS OR WORRIES. Work down the page and circle 1, 2, 3, 4 or 5 as you come to each statement.

For example: if you sometimes cope with your problems or worries by ‘Talking to others to see what they would do if they had the problem’ you would circle 3 as shown below:

<table>
<thead>
<tr>
<th>Talking to others to see what they would do if they had the problem</th>
<th>I don’t do this</th>
<th>I do this very little</th>
<th>I do this sometimes</th>
<th>I do this often</th>
<th>I do this a great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Now go ahead and for each statement circle a number between 1 and 5.

I DEAL WITH MY PROBLEMS/WORRIES BY . . .

<table>
<thead>
<tr>
<th></th>
<th>I don’t do this</th>
<th>I do this very little</th>
<th>I do this sometimes</th>
<th>I do this often</th>
<th>I do this a great deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talking to other people about my problem to help me sort it out</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Working at solving the problem to the best of my ability</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Working hard</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Worrying about what will happen to me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Spending more time with boy/girl friend</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Improving my relationships with others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Wishing a miracle would happen</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I have no way of dealing with the problem</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Finding a way to let off steam; for example cry, scream, talk drugs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Joining with people who have the same concern</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Shutting myself off from the problems so I can avoid it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Seeing myself as being at fault</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Not letting others know how I am feeling</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Praying for help and guidance so that everything will be alright</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Looking on the bright side of things and think of all that is good</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Asking a professional person for help</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Making time for leisure activities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Keeping fit and healthy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Below is a list of statements young people sometimes make when talking about their emotions. Please rate how much each statement applies to you by drawing a CIRCLE around the most appropriate number below each statement, with 1 being VERY STRONGLY DISAGREE and 7 being VERY STRONGLY AGREE.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very strongly DISAGREE</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Very strongly AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I get so upset when I am nervous that I cannot think clearly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I feel comfortable that I can control how anxious I am feeling.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>If people were to find out how angry I sometimes feel, the consequences might be pretty bad.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I am afraid I could go into a depression that would wipe me out.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>When I get nervous, I think I am going to go crazy.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I am able to stop myself from becoming overly anxious.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I am afraid I might try to hurt myself if I become too depressed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>It scares me when I am nervous.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Being nervous isn’t much fun but I can handle it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>There is nothing I can do to stop feeling nervous once it has started.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>When I start feeling “down”, I think I might let the sadness go too far.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Once I get nervous, I think that my feelings might get out of hand.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>When I get really unhappy, I worry that I will stay that way.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I am afraid that I will talk nonsense or talk funny when I am nervous.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Depression is scary to me — I am afraid that I could get depressed and never recover.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I don’t really mind feeling nervous; I know it will go away.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I am afraid that letting myself feel really angry about something could cause me to totally lose it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>When I am nervous, I am afraid I will act stupid.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
Next is a list of statements relating to your **GENERAL FEELINGS ABOUT YOURSELF**. If you strongly agree with a statement, please circle number 4. If you agree with the statement, please circle number 3. If you disagree, circle number 2. If you strongly disagree, circle number 1.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>On the whole, I am satisfied with myself</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>At times, I think I am no good at all</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>I feel that I have a number of good qualities</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>I am able to do things as well as most other people</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>I feel I do not have much to be proud of</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>I certainly feel useless at times</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>I feel that I am a person of worth, at least on equal plane with others</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>I wish I could have more respect for myself</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>All in all, I am inclined to feel that I am a failure</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>I take a positive attitude toward myself</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

We want to know more about what you think, how you feel, and what you do. Read each sentence. Then, circle the number that tells how often each sentence is true for you.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never True</th>
<th>Rarely True</th>
<th>Sometimes True</th>
<th>Often True</th>
<th>Always True</th>
</tr>
</thead>
<tbody>
<tr>
<td>I notice small changes in my body, like when my breathing slows down or speeds up</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I get upset with myself for having feelings that don’t make sense</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I pay attention to my moods and notice when they feel tired or relaxed</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>At school, I walk from class to class without noticing what I’m doing</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I do things without thinking about what I’m doing</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I pay close attention to my thoughts</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I try only to think about things that make me feel happy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I keep myself busy so I don’t notice my thoughts or feelings</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>When I’m doing something, I focus only on what I’m doing and nothing else</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I tell myself that I shouldn’t feel the way I’m feeling</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Never True</td>
<td>Rarely True</td>
<td>Sometimes True</td>
<td>Often True</td>
<td>Always True</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>------------</td>
<td>-------------</td>
<td>----------------</td>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>When something good happens, I can't stop thinking about it.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>When I take a shower or bath, I notice how the water feels on my body.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I notice my thoughts as they come and go.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>When I'm eating, I notice the way it feels to chew my food.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I push away thoughts that I don't like.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>It's hard for me to pay attention to only one thing at a time.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I think about things that have happened in the past instead of thinking about things that are happening right now.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I get upset with myself for having certain thoughts.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I do many things at once.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I think about the future.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I think that some of my feelings are bad and that I shouldn't have them.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I notice when my feelings begin to change.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I pay close attention to whatever is happening right now.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I notice how things around me smell.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I stop myself from having feelings that I don't like.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

These statements relate to your strengths and difficulties. For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain. Please give your answers on the basis of how things have been for you over the last month.

<table>
<thead>
<tr>
<th></th>
<th>Not True</th>
<th>Somewhat True</th>
<th>Certainly True</th>
</tr>
</thead>
<tbody>
<tr>
<td>I try to be nice to other people. I care about their feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I am restless, I cannot stay still for long.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I get a lot of headaches, stomach aches, or sickness</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I usually share with others, for example CD's, games, food</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I get angry and often lose my temper</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I would rather be alone than with people of my age</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Not True</td>
<td>Somewhat True</td>
<td>Certainly True</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>---------</td>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td>I usually do as I am told</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I worry a lot</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I am helpful if someone is hurt, upset or feeling ill</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I am constantly fidgeting or squirming</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I have one good friend or more</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I fight a lot. I cannot make other people do what I want</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I am often unhappy, depressed or tearful</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other people my age generally like me</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I am easily distracted, I find it difficult to concentrate</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I am nervous in new situations. I easily lose confidence</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I am kind to younger children</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I am often accused of lying or cheating</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other children or young people pick on me or bully me</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I often volunteer to help others (parents, teachers, children)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I think before I do things</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I take things that are not mine from home, school or elsewhere</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I get along better with adults than with people my own age</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I have many fears, I am easily scared</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I finish the work I’m doing. My attention is good</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>A Little</th>
<th>A Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does your family complain about you having problems with over-activity or poor concentration?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Do your teachers complain about you having problems with over-activity or poor concentration?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Does your family complain about you being troublesome or awkward?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Do your teachers complain about you being troublesome or awkward?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Young people sometimes have different feelings and ideas. This part of the questionnaire lists the feelings and ideas and groups. From each group of three sentences, pick one sentence that describes you best for the past two weeks. After you pick a sentence from the first group, go on to the next group.

There is no right or wrong answer. Just pick the sentence that best describes the way you have been recently. Put a mark in the box next to the sentence that describes you best.

<table>
<thead>
<tr>
<th>I am sad once in a while.</th>
<th>I think about bad things happening to me once in a while.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am sad many times.</td>
<td>I worry that bad things will happen to me.</td>
</tr>
<tr>
<td>I am sad all the time.</td>
<td>I am sure that terrible things will happen to me.</td>
</tr>
<tr>
<td>Nothing will ever work out for me.</td>
<td>I hate myself.</td>
</tr>
<tr>
<td>I am not sure if things will work out for me.</td>
<td>I do not like myself.</td>
</tr>
<tr>
<td>Things will work out for me O.K.</td>
<td>I like myself.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I do most things O.K.</th>
<th>All bad things are my fault.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I do many things wrong</td>
<td>Many bad things are my fault.</td>
</tr>
<tr>
<td>I do everything wrong</td>
<td>Bad things are not usually my fault.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I have fun in many things.</th>
<th>I do not think about killing myself.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have fun in some things.</td>
<td>I think about killing myself.</td>
</tr>
<tr>
<td>Nothing is fun at all.</td>
<td>I want to kill myself.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I am bad all the time.</th>
<th>I do not worry about aches and pains.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am bad many times.</td>
<td>I worry about aches and pains many times.</td>
</tr>
<tr>
<td>I am bad once in a while.</td>
<td>I worry about aches and pains all the time.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I feel like crying every day.</th>
<th>I never have fun at school.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel like crying many days.</td>
<td>I have fun at school only a few times.</td>
</tr>
<tr>
<td>I feel like crying once in a while.</td>
<td>I have fun at school many times.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Things bother me all the time.</th>
<th>I have plenty of friends.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Things bother me many times.</td>
<td>I have some friends but wish I had more.</td>
</tr>
<tr>
<td>Things bother me once in a while.</td>
<td>I do not have any friends.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I like being with people.</th>
<th>My schoolwork is a highlight.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I do not like being with people many times.</td>
<td>My schoolwork is not as good as before.</td>
</tr>
<tr>
<td>I do not want to be with people at all.</td>
<td>I do very badly in subjects I used to be good at.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I cannot make up my mind about things.</th>
<th>I can never be as good as other kids.</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is hard to make up my mind about things.</td>
<td>I can be as good as other kids if I want to be.</td>
</tr>
<tr>
<td>I make up my mind about things easily.</td>
<td>I am just as good as other kids.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I look O.K.</th>
<th>I can never be as good as other kids.</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are some bad things about my looks.</td>
<td>I can never be as good as other kids.</td>
</tr>
<tr>
<td>I look ugly.</td>
<td>I am just as good as other kids.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I have to push myself all the time to do my schoolwork.</th>
<th>Doing schoolwork is not a big problem.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have to push myself many times to do my schoolwork.</td>
<td>Doing schoolwork is not a big problem.</td>
</tr>
<tr>
<td>Doing schoolwork is not a big problem.</td>
<td>Doing schoolwork is not a big problem.</td>
</tr>
</tbody>
</table>
Please circle the response that best describes your current situation.

<table>
<thead>
<tr>
<th>Impact Statement</th>
<th>No</th>
<th>Yes-Minor Difficulties</th>
<th>Yes-Definite Difficulties</th>
<th>Yes Severe Difficulties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, do you think that you have difficulties in any of the following areas: emotions, concentration, behaviour or being able to get along with other people?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Not at All</th>
<th>A Little</th>
<th>A Medium Amount</th>
<th>A Great Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do the difficulties upset or distress you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Do the difficulties interfere with your everyday life in the following areas?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>HOME LIFE</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>FRIENDSHIPS</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CLASSROOM LEARNING</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>LEISURE ACTIVITIES</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Do the difficulties make it harder for those around you (family, friends, teachers etc.)?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Thank you for your time and effort in completing this questionnaire. Your contribution is valuable.
APPENDIX C: School Principal Information and Consent Form

[Insert school name and address]

'The Impact of the Life Skills Program on Emotional and Behavioural Functioning in Adolescents aged 12-14 years'

Dear [Insert Principal Name],

I would like to ask your support for a research project involving young people who may be at risk for developing psychological problems, who may benefit from assistance in building and enhancing ‘life skills’ in areas important to general well-being. I am conducting this research as part of my Doctor of Clinical Psychology degree, under the supervision of Dr Kristy Johnstone and Dr Suzanne Dzurawiec. The project is being conducted in collaboration with Murdoch University and the North Metropolitan Child and Adolescent Mental Health Services (CAHMS).

My research is looking at how attendance in the Life Skills program can improve self-confidence, self-esteem and coping strategies and reduce emotional and behavioural problems in young adolescents (ages 12-14 years). This research will lead to a better understanding of the program’s benefits and improve opportunities for managing psychological problems within the school system.

What does participation in the research project involve?

If your students participate in this research they will be invited to attend the Life Skills Group, which will be run over eight one-hour sessions during the course of one school term. The group sessions will be co-facilitated by myself or a member of the research team at CAMHS and a staff member from student services at your school (i.e. school psychologist or nurse). The eight sessions will be located at your school and will be run at the same time and place weekly throughout the duration of the group.
Students participating in the group will be required to complete a questionnaire (approximately 20 minutes) at two different times; once prior to starting the Life Skills program, and once after completion of the program. Student’s answers on the questionnaire will remain strictly confidential and will be seen only by the researcher and staff at CAMHS involved with the project. The questionnaire will be completed by students in a supervised environment under the guidance of myself.

I will keep your school’s involvement in the administration of the research procedures to a minimum. However, it will be necessary for your school to distribute information and consent forms to the parents and students who have been identified as appropriate to participate in the group.

I ask for staff from student services at your school to be the point of contact within your school in order to have regards to the timeline of the program, and how the program will run specifically in your school. Staff from student services at your school will take on the role of liaising with yourself in order to seek permission to run the program and organising students to join the program.

To what extent is participation voluntary, and what are the implications of withdrawing that participation?
Participation in this research project is entirely voluntary. If any student decides to participate and then later changes their mind, they are able to withdraw their participation at any time. There will be no consequences relating to any decision by an individual or your school regarding participation. Decisions made will not affect the relationship with the North Metropolitan Child and Adolescent Mental Health Services.

What will happen to the information collected, and is privacy and confidentiality assured?
Completed questionnaires will be kept in a separate secure filing room in Hillarys Child and Adolescent Center. Once all the data from each group has been collected and recorded electronically, the hardcopies of the questionnaires will be shredded. The remaining electronic
data file will only contain de-identified information and will remain the property of CAMHS. The electronic data file will be kept at CAMHS for a minimum of five years.

All information obtained from this study will be kept confidential and student's name and identity or school name and identity will not be used with any report, publication or discussion. A summary of the main findings will be forwarded to participating schools upon completion of the research.

Participant privacy and confidentiality of information disclosed by participants is assured at all times, except in circumstances that require reporting under the Department of Education and Training Child Protection policy, or where the research team is legally required to disclose that information.

Is this research approved?
The research has been approved by Murdoch University Human Research Ethics Committee, the North Metropolitan Area Mental Health Services Human Research Ethics Committee and has met the policy requirements of the Department of Education and Training.

Who do I contact if I wish to discuss the project further?
If you would like to discuss any aspect of this study with a member of the research team, please contact:

CAMHS research team representative: Diane Ferguson
Clinical Psychologist
Hillarys Child and Adolescent Centre
Ph: 9401 1999
Murdoch University student researcher: Jacinta Macintyre
Clinical Psychology Trainee
Murdoch University Psychology Department
Ph: 0439 690 689

Thank you for your time in considering our request. We would like to thank you in advance for your assistance with this research project.

Yours sincerely,

[Signature]

Jacinta Macintyre
Clinical Psychology Trainee
(Research Student)

Dr. Kristy Johnstone
Specialist Clinical Psychologist
(Research Supervisor)

This information letter is for you to keep.

This study has been approved by the Murdoch University Human Research Ethics Committee (Approval No. 2009/08). If you wish to discuss with an independent person any concerns you have with how this research has been conducted you may contact Murdoch University’s Human Research Ethics Committee on 9360 6677 or email: ethics@murdoch.edu.au
School Consent Form

- I have read this document and understand the aims and procedures of this project.
- For any questions I may have had, I have taken up the invitation to ask those questions, and I am satisfied with the answers I received.
- I am willing for [Insert name of school] to become involved in the research project, as described.
- I understand that participation in the project is entirely voluntary.
- I understand that [Insert name of school] is free to withdraw its participation at any time, without affecting the relationship with the research team or North Metropolitan Child and Adolescent Mental Health Services.
- I understand that all information obtained from this study will be kept confidential and student's name and identity or school name and identity will not be used with any report, publication or discussion.
- I understand that the [insert name of school] will be provided with a copy of the findings from this research upon its completion.

Name of School (print)________________________________________

Name of School Principal (print)________________________________

Signature____________________________________________________

Date________________________________________________________
Dear Student

My name is Jacinta Macintyre and I am from Murdoch University. I would like to invite you to take part in a research project that I am doing with the North Metropolitan Child and Adolescent Service. The project is about finding ways to help young people learn skills to cope with stress, communicate well with friends and others, and manage strong emotions.

What would I be asked to do?
If you agree to take part, you will be asked to attend eight one-hour sessions with other students in your year from your school, over the course of one school term. These group sessions will be run either by myself, or someone from the North Metropolitan Child and Adolescent Service and a teacher from your school. In these sessions you will learn lots of different helpful skills through participating in fun activities and discussions. If you do not wish to participate in some of the activities or talk about stuff that is personal to you that is ok. You will not have to say or do anything you do not feel comfortable with.

You will also be asked to complete a questionnaire on two occasions, once before the first group session, and once following the completion of the eight sessions. The questionnaires ask questions about how you have been feeling, the ways in which you cope with stress and what you think your strengths and difficulties are.

Do I have to take part?
No. You are completely free to say yes or no. The research team will respect your decision whichever choice you make, and will not question it.

Participating in this research will not affect your grades, your relationship with your teacher(s), or your school.

What if I wanted to change my mind?
If you say yes, but then want to stop participating, that’s OK. Just let your teacher know and you can stop at any time.

What will happen to the information I give - is it private and confidential?
Your answers on the questionnaire will remain strictly confidential and will be seen only by the researchers. Your teachers will not see any of your answers and you will not have to put your name on the questionnaire.
After I have collected what each student has given to the project and analysed all of it, I intend to write about what I found in a thesis, which is like a big assignment that will be marked for my University degree. When I do this, I won't write or tell anyone your name, or the names of any other students or your school.

A summary of the project will be made available to your school when it is completed. You can also ask your teacher for a copy.

Will you tell anyone what I say while I am contributing to the project?
In almost all cases no. If you tell me or whoever is running your group, something that later we need to tell someone else because the law requires us to do so, then we will have to. We may also have to reveal something you say, if we think that you might be being mistreated by someone or if you are hurting yourself. If this happens we will discuss this with you first before telling anyone else and make sure you know exactly who we are going to tell and what we will say.

In all other situations, we will treat what you tell us as being private and confidential. Just the same way you will be asked to treat what other students say in the group as private and confidential and not tell anyone else. What is said in the group stays in the group!

Is this research approved?
The research has been approved by Murdoch University Human Research Ethics Committee, the North Metropolitan Area Mental Health Services Human Research Ethics Committee and has met the policy requirements of the Department of Education and Training.

Who do I contact if I wish to talk about the project further?
Please talk about the project with your parents or teacher first. Then, if you would like to talk with me more, please ask your teacher for my contact details.

OK – so how do I become involved?
If you do want to be a part of the project, please read the next page and write your name in the space provided.

This letter is for you to keep.

This study has been approved by the Murdoch University Human Research Ethics Committee (Approval No. 221/07). If you wish to discuss with an independent person any concerns you have with how this research has been conducted you may contact Murdoch University's Human Research Ethics Committee on 9360 6677 or email ethics@murdoch.edu.au.
Consent Form

- I know that I don’t have to be involved in this project, but I would like to.
- I know that I will be taking part in nine one-hour group sessions and completing a questionnaire at two different times as part of the project.
- I understand I am free to stop and withdraw from the project at any time.
- I understand that participating in this project will not affect my grades, my relationship with my teacher(s) or my school.
- I understand that results of this project will be written up and may be published, however my name or the name my school will not be included anywhere on the paper.
- I understand that I need to write my name in the space below, before I can be a part of the project.

Your School: ________________________________

Your Name: ________________________________

Today’s Date: ______________________________
APPENDIX E: Participant Information and Consent Form (Control Group)

Dear Student

My name is Jacinta Macintyre and I am from Murdoch University. I would like to invite you to take part in a research project that I am doing with the North Metropolitan Child and Adolescent Service. The project is about finding ways to help young people learn skills to cope with stress, communicate well with friends and others, and manage strong emotions.

What would I be asked to do?
If you agree to take part, you will be asked to complete a questionnaire on two occasions, once at the beginning of term and once at the end of term (approximately 9 weeks later). The questionnaire asks questions about how you have been feeling, the ways in which you cope with stress and what you think your strengths and difficulties are.

Do I have to take part?
No. You are completely free to say yes or no. The research team will respect your decision whichever choice you make, and will not question it.

Participating in this research will not affect your grades, your relationship with your teacher(s), or your school.

What if I wanted to change my mind?
If you say yes, but then want to stop participating, that’s OK. Just let your teacher or I know and you can stop at any time.

What will happen to the information I give - is it private and confidential?
Your answers on the questionnaire will remain strictly confidential and will be seen only by the researchers. Your teachers will not see any of your answers and you will not have to put your name on the questionnaire.

After I have collected what each student has given to the project and analysed all of it, I intend to write about what I found in a thesis, which is like a big assignment that will be marked for my University degree. When I do this, I won’t write or tell anyone your name, or the names of any other students or your school.

A summary of the project will be made available to your school when it is completed. You can also ask your teacher for a copy.
Will you tell anyone what I say in my answers in the questionnaire?
In almost all cases no. Although we may have to reveal something if we think that you are being mistreated by someone or if you are hurting yourself. If this happens we will discuss this with you first before telling anyone else and make sure you know exactly who we are going to tell and what we will say.

In all other situations, we will treat what you tell us as being private and confidential.

Is this research approved?
The research has been approved by Murdoch University Human Research Ethics Committee, the North Metropolitan Area Mental Health Services Human Research Ethics Committee and has met the policy requirements of the Department of Education and Training.

Who do I contact if I wish to talk about the project further?
Please talk about the project with your parents or teacher first. Then, if you would like to talk with me more, please ask your teacher for my contact details.

OK – so how do I become involved?
If you do want to be a part of the project, please read the next page and write your name in the space provided.

This letter is for you to keep.
Consent Form

- I know that I don’t have to be involved in this project, but I would like to.

- I know that I will be taking part in nine one-hour group sessions and completing a questionnaire at two different times as part of the project.

- I understand I am free to stop and withdraw from the project at any time.

- I understand that participating in this project will not affect my grades, my relationship with my teacher(s) or my school.

- I understand that results of this project will be written up and may be published, however my name or the name my school will not be included anywhere on the paper.

- I understand that I need to write my name in the space below, before I can be a part of the project.

Your School: ________________________________

Your Name: ________________________________

Today’s Date: ______________________________
Appendix F: Parent/Guardian Information and Consent Form (Prevention Group)

Dear Parent/Caregiver

We would like to invite your child to participate in a Life skills program that aims to enhance skills in areas important to general well-being. More specifically, these skills include coping strategies, stress reduction, emotion regulation, communication, assertiveness, negotiation and problem-solving.

The project is being conducted in collaboration with Murdoch University and the North Metropolitan Child and Adolescent services.

What does participation in the research project involve?
As a participant in this study your child will attend eight one-hour sessions over the course of one school term. In addition, your child will be asked to complete a questionnaire on two occasions, once before the first group session, and once following the completion of the eight sessions. The questionnaires ask questions about how your child has been feeling, the ways in which they cope and what they perceive their various strengths and difficulties to be.

Does my child have to take part?
No. Participation in this research project is entirely voluntary. This decision should always be made completely freely. All decisions made will be respected by members of the research team without question. Your child has also been provided with a letter from us that we encourage you to discuss with him/her.

What if either of us was to change our mind?
Once a decision is made to participate, either you or your child can change your mind at any time. There will be no consequences relating to any decision by you and your child regarding participation. These decisions will not affect your family’s relationship with your child’s teacher or your child’s school.

What will happen to the information collected, and is privacy and confidentiality assured?
Only the research team will see your child’s answers on the questionnaire. Teachers at your school will not have access to the questionnaire and your child will not be required to write their name anywhere on the questionnaire. The data is then stored securely at the Hillary’s Child and Adolescent Center.

Participant privacy, and the confidentiality of information disclosed by participants, is assured at all times, except in circumstances that require reporting under the Department of Education and Training Child Protection policy, or where the research team is legally required to disclose that information.
A summary of the research findings may be requested on completion of the project. You can access this via staff at student support services of your child’s school.

Is this research approved?
The research has been approved by Murdoch University Human Research Ethics Committee, the North Metropolitan Area Mental Health Services Human Research Ethics Committee and has met the policy requirements of the Department of Education and Training.

Who do I contact if I wish to discuss the project further?
If you would like to discuss any aspect of this study with a member of the research team or to enquire more about the research team’s qualifications, please contact:

Child and Adolescent Service group facilitator: Katie Nowland
Clinical Psychologist
Shenton Park Child and Adolescent Centre
9381 7655

Murdoch University group facilitator: Jacinta Macintyre
Clinical Psychology Trainee
Murdoch University Psychology Department
0439 690 689

Once all questions have been answered to your satisfaction, and you and your child are both willing for him/her to become involved, please complete the Consent Form on the following page. (Your child is also asked to complete the Consent Form attached to his/her letter.)

This project information letter is for you to keep.

This study has been approved by the Murdoch University Human Research Ethics Committee (Approval No. 2009/81). If you wish to discuss with an independent person any concerns you have with how this research has been conducted you may contact Murdoch University’s Human Research Ethics Committee on 9360 6877 or email ethics@murdoch.edu.au. Alternatively any complaint may be given to the Secretary, North Metropolitan Area Mental Health Service Human Research Ethics Committee, Private Mail Bag No 1, Claremont WA 6910. (Phone: 9347 6818).
Consent Form

- I have read this document, or have had this document explained to me in a language I understand. I understand the aims, procedures, and any identified risks of this project, as described within it.
- I understand that participation in the project is entirely voluntarily.
- I am willing for my child to become involved in the project, as described.
- My child has explicitly indicated a willingness to take part, as indicated by his/her completion of the child consent form.
- I understand that both my child and I are free to withdraw that participation at any time without affecting the family's relationship with my child's teacher or my child's school.
- I understand that all information obtained from this study will be kept confidential and your child's name and identity or school name will not be used with any report, publication or discussion.
- I understand that I can request a summary of findings after the research has been completed.
- I understand that if I wish to make a complaint about how this research has been conducted, I can contact Murdoch University's Human Research Ethics Committee or the North Metropolitan Area Mental Health Service Human Research Ethics Committee (contact details provided on the information form).

Name of School (print) 

Name of Child (print) 

Name of Parent/Carer (print) 

Signature of Parent/Carer 

Date: ____________________
APPENDIX G: Parent/Guardian Information and Consent Form (Control Group)

Dear Parent/Caregiver,

We would like to invite your child to participate in a research project that aims to enhance skills in areas important to general well being. More specifically, these skills include coping strategies, stress reduction, emotion regulation, communication, assertiveness, negotiation and problem solving.

The project is being conducted in collaboration with Murdoch University and the North Metropolitan Child and Adolescent services.

What does participation in the research project involve?
As a participant in the study your child will be asked to complete a questionnaire on two occasions, once at the beginning of term and once again at the end of term (approximately nine weeks later). The questionnaires ask questions about how your child has been feeling, the ways in which they cope and what they perceive their various strengths and difficulties to be.

Does my child have to take part?
No. Participation in this research project is entirely voluntary. This decision should always be made completely freely. All decisions made will be respected by members of the research team without question. Your child has also been provided with a letter from us that we encourage you to discuss with him/her.

What if either of us was to change our mind?
Once a decision is made to participate, either you or your child can change your mind at any time. There will be no consequences relating to any decision by you and your child regarding participation. These decisions will not affect your family’s relationship with your child’s teacher or your child’s school.

What will happen to the information collected, and is privacy and confidentiality assured?
Only the research team will see your child’s answers on the questionnaire. Teachers at your school will not have access to the questionnaire and your child will not be required to write their name anywhere on the questionnaire. The data is then stored securely at the Hillary’s Child and Adolescent Center.

Participant privacy, and the confidentiality of information disclosed by participants, is assured at all times, except in circumstances that require reporting under the Department of Education and Training Child Protection policy, or where the research team is legally required to disclose that information.
A summary of the research findings may be requested on completion of the project. You can access this via staff at student support services of your child’s school.

Is this research approved?
The research has been approved by Murdoch University Human Research Ethics Committee, the North Metropolitan Area Mental Health Services Human Research Ethics Committee and has met the policy requirements of the Department of Education and Training.

Who do I contact if I wish to discuss the project further?
If you would like to discuss any aspect of this study with a member of the research team or to enquire more about the research team’s qualifications, please contact:

Child and Adolescent Service group facilitator: Diane Ferguson
Clinical Psychologist
Hillarys Child and Adolescent Centre
9401 1999

Murdoch University group facilitator: Jacinta Macintyre
Clinical Psychology Trainee
Murdoch University Psychology Department
0439 690 689

Once all questions have been answered to your satisfaction, and you and your child are both willing for him/her to become involved, please complete the Consent Form on the following page. (Your child is also asked to complete the Consent Form attached to his/her letter.)

This project information letter is for you to keep.

This study has been approved by the Murdoch University Human Research Ethics Committee (Approval No. 2009/081). If you wish to discuss any concerns you have with how this research has been conducted you may contact Murdoch University’s Human Research Ethics Committee on 9360 6677 or email: ethics@murdoch.edu.au. Alternatively any complaint may be given to the Secretary, North Metropolitan Area Mental Health Services Human Research Ethics Committee, Private Mail Bag No 1, Claremont WA 6910- (Phone # 9247 6618).
Consent Form

- I have read this document, or have had this document explained to me in a language I understand. I understand the aims, procedures, and any identified risks of this project, as described within it.
- I understand that participation in the project is entirely voluntary.
- I am willing for my child to become involved in the project, as described.
- My child has explicitly indicated a willingness to take part, as indicated by his/her completion of the child consent form.
- I understand that both my child and I are free to withdraw that participation at any time without affecting the family’s relationship with my child’s teacher or my child’s school.
- I understand that all information obtained from this study will be kept confidential and your child’s name and identity or school name will not be used with any report, publication or discussion.
- I understand that I can request a summary of findings after the research has been completed.
- I understand that if I wish to make a complaint about how this research has been conducted, I can contact Murdoch University’s Human Research Ethics Committee or the North Metropolitan Area Mental Health Service Human Research Ethics Committee (contact details provided on the information form).

Name of School (print) ____________________________________________

Name of Child (print) ____________________________________________

Name of Parent/Carer (print) ______________________________________

Signature of Parent/Carer _________________________________________

Date: ___________________