# Preventing Adolescent Depression With Sustainable Resources: Evaluation of a School-Based Universal Effectiveness Trial

# PREVENTING ADOLESCENT DEPRESSION WITH SUSTAINABLE RESOURCES: EVALUATON OF A SCHOOL-BASED UNIVERSAL EFFECTIVENESS TRIAL.

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Statement of Originality

This work has not previously been submitted for a degree or diploma in any university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

Signed

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## ABSTRACT

## PREVENTING ADOLESCENT DEPRESSION WITH SUSTAINABLE RESOURCES: EVALUATION OF A SCHOOL-BASED UNIVERSAL EFFECTIVENESS TRIAL.

Adolescent depression is highly prevalent, associated with negative effects and likely to recur, this provides a cogent argument for finding sustainable, cost-effective, developmentally appropriate approaches to preventing depression. Although there is good evidence to support efficacy, there is no evidence of the effectiveness of programs preventing adolescent depression. Thus the primary aim of this thesis is to evaluate the effectiveness of a universal, school-based, adolescent depression prevention program when implemented by teachers and local mental health professionals.

Participants were 1003 secondary school students drawn from three pairs of matched Year 9 cohorts. The three pairs were assigned to either: (a) Resourceful Adolescent Program (RAP), an 11-session school-based resilience program delivered as part of the school curriculum (n = 522) or (b) a comparison condition (n = 481). All students completed measures of depressive symptoms and hopelessness at pre-intervention, post-intervention and 6-month follow-up. The intervention group completed quantitative and qualitative evaluations of perceived program benefit. Small program effects on depressive symptoms for the RAP group were evident for the whole group at post-intervention (ES = 0.30) and for girls only at follow-up (ES = 0.35). However, both boys' and girls' self-reports indicated very positive overall benefits from the RAP intervention. Teachers were not less effective as group

leaders than mental health professionals in terms of outcomes on depression measures, perceived program benefits or acceptability to students. Public health implications of this population-based approach are discussed in the light of small effects, high recruitment rates and potential use of sustainable school resources.

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# CHAPTER 1

## ADOLESCENT DEPRESSION AND THE CASE FOR PREVENTION

### 1.1. Thesis Overview

Adolescent depression is a major mental health problem with deleterious effects for many young people and their families. Preventing adolescent depression would clearly improve the quality of life for a number of adolescents and their families. There is evidence of increased awareness of the value of prevention as an integral component of mental health care. Current mental health policy in Australia at both State and Federal levels reflects a strong commitment to the implementation and evaluation of effective prevention programs, including programs to prevent adolescent depression (Commonwealth of Australia, 2000; Centre for Mental Health, 2000). International research reflects a widespread concern to find effective ways of preventing adolescent depression (Harrington & Clark, 1998; Clarke, Hawkins, Murphy et al., 1995; Jaycox & Reivich, Gillham & Seligman, 1994).

There is evidence of increasing interest in a public health approach to mental health (Rose, 1992; Raphael, 2000). Universal approaches to prevention are consistent with a public health approach (Brown & Liao, 1999) and are more accessible than targeted programs (Offord, Kraemer, Kazdin, Jensen & Harrington, 1998). School-based programs conducted during school hours are readily accessible to young people. Program sustainability is considered an integral component of effective health promotion (Hawe, King, Noort, Gifford, & Lloyd, 1998). Guidelines for health promotion initiatives in schools state that health program outcomes should be relevant, measurable and sustainable (NSW Health Department, 2000). The provision of sustainable, universal, interventions in schools is challenging. The use

of local resources including teachers may provide one means of increasing program sustainability. There is a need for an effectiveness trial to see if adolescent depression can be prevented within a "real world" context. Thus the primary aim of this thesis is to evaluate a school-based universal trial designed to prevent adolescent depression in a "real world" context using sustainable resources.

The first chapter of the thesis will review the nature and severity of adolescent depression, demonstrating the magnitude of the problem, thus providing a cogent argument for the development of evidence-based prevention programs. Difficulties associated with defining and measuring depression in young people will be highlighted as this has implications for how depression is defined in this research.

Chapter 2 will review the risk and protective factors associated with adolescent depression, as an understanding of risk and protective factors is crucial to designing effective prevention programs and are thus relevant to the current research. This chapter emphasises risk factors associated with, and explanations for, the increased rates of depression in girls evident from adolescence and continuing into adulthood. It will be argued that gender issues in adolescent depression require further exploration in order to examine implications for prevention.

Prevention of mental health problems in general and prevention of adolescent depression specifically will be explored in some detail in Chapter 3. The differences between efficacy and effectiveness studies will be discussed. It will be argued that support for prevention of depression programs should include studies conducted under "real world" conditions, optimising potential for accessibility and sustainability. Outcomes of previous studies designed to prevent adolescent depression will be discussed. Limitations of previous studies will be considered and the rationale for and research aims of this study will be presented.

The second part of the thesis will present a study aimed at evaluating a school-based effectiveness trial to prevent adolescent depression, as the current evidence is derived from efficacy trials. The method employed to conduct the current study will be described in Chapter 4 with results relating to depression symptoms presented in Chapter 5. Chapter 6 will present the quantitative and qualitative student evaluation of the intervention using a semi-structured interview and a self-report measure. This will be the first time that combined methods, that is, both quantitative and qualitative methods have been used to review the students' evaluation of this type of program. A critical analysis of the current study will be found in Chapter 7, together with suggestions for maximising success of future effectiveness trials and recommendations for further research.

## 1.2. Introduction

Depressive disorders constitute one of the most common mental health concerns of our times, exacting a huge toll on individuals, families and society. Clearly the severity of depressive symptoms and depressive disorders varies with concomitant impact on morbidity and increasing the risk of suicide. Murray and Lopez (1996) predict that depression will constitute the second greatest burden of disease by 2020. Andrews, Hall, Teeson and Henderson (1999) state that 6.8% of adult females, and 3.4% of adult males in Australia reported episodes of depression which lasted two weeks or more and markedly impaired functioning at home and/or work in the twelve months prior to being surveyed.

Depression is not confined to the adult population. There is evidence to support the fact that depression is a significant health problem in the adolescent age group (Cicchetti & Toth, 1998; Oldenhinkel, Wittchen & Schuster, 1999; Reinherz,

Giaconia, Hauf, Wasserman & Paradis, 2000; Rice & Leffert, 1997). Furthermore, it can be argued that depression in young people is not a normal part of adolescence nor is it a short-term problem that diminishes with time (Kovacs, 1989). A depressive episode in adolescence confers considerable risk of recurrence (McCauley, Myers, Mitchell, Calderon, Schloredt & Treder, 1993) and is a risk factor for developing a depressive disorder in adulthood (Harrington, Fudge, Rutter, Pickles & Hill, 1990; Lewinsohn, Rohde, Klein & Seeley, 1999; Pine, Cohen, Gurley, Brook & Ma, 1998).

The consequences of depression can be serious for the adolescent and their family. Depression commonly interferes with a young person's ability to negotiate the developmental tasks of adolescence, reducing optimal functioning in family and social relationships, and in academic and work performance. Depression is associated with eating disorders and substance abuse and is implicated in youth suicide (Hollis, 1996; National Health and Medical Research Council, [NHMRC], 1997). Fergusson, Woodward and Horwood (2000, p. 25) assert that mood disorders are one of the strongest predictors of suicidal behaviour. Birmaher, Ryan, Williamson, Brent, Kaufman, Dahl et al. (1996) state that a depressive episode typically precedes the onset of alcohol or substance abuse by approximately four and a half years, indicating the potential for prevention of substance abuse in depressed adolescents.

Adolescent depression is often unrecognised and commonly remains untreated (Keller, Lavori, Beardslee, Wunder & Ryan, 1991; Lewinsohn, Rohde, Seeley & Hops, 1991). Adolescents are reluctant to seek help for a variety of reasons, including reluctance to consult adults, fear that peers or parents will become

aware of the problem if they seek help, inconvenient clinic hours and uninviting environments, cost and inadequate continuity of care (NHMRC, 1997).

Thus the potentially serious nature and the significant impact of depression for all age groups but especially for adolescents, highlight the need for effective prevention of this disorder. Furthermore, the fact that depression in adolescents is under-recognised and often untreated (NHMRC, 1997) suggests that prevention strategies need to target environments commonly frequented by adolescents.

This Chapter provides the reader with a background to the classification and epidemiology of adolescent depression. The age of onset, duration, recurrence of depression and comorbidity with other psychiatric disorders are also reviewed. It will be argued that an understanding of the magnitude and effects of adolescent depression provides a cogent argument for the development of evidence-based prevention programs.

## 1.3. Classification of Depression

Mental health professionals and the general public use the term "depression" commonly, however the meaning of the term can be unclear. The following discussion will present a classification system and will highlight definitions pertinent to the current research.

The Diagnostic and Statistical Manual for Mental Disorders [DSM] system is the most commonly used classification system for depressive disorders. According to Essau, Petermann and Reynolds (1999), DSM -III (American Psychiatric Association, 1980) provided a model for the classification of depressive disorders in children and adolescents. DSM-IV (American Psychiatric Association, 1994) differentiates between unipolar and bipolar disorders. Major Depressive Disorder

(MDD) and Dysthymia (DD) are the two most common unipolar depressive disorders in adolescence.

Major Depressive Disorder (MDD) according to DSM-IV (1994) includes depressed or irritable mood and involves the presence of five or more of the following symptoms present for two weeks or more: sleep disturbance; appetite loss or gain; anhedonia; worthlessness or excessive guilt; psychomotor agitation or retardation; fatigue/ loss of energy; impaired concentration; suicidal ideation.

DSM-IV (1994) criteria for Dysthymic Disorder (DD) and MDD differ from one another in both severity and chronicity. Dysthymia requires the presence of a sad or irritable mood for at least one year (for children and adolescents) and only two of the symptoms listed above. Klein and Hayden (2000) contend that while the symptoms suggestive of dysthymic disorder can be relatively mild, the disorder can be associated with a chronic course, increased risk of suicide, high utilization of health services and can have a significant impact on psychosocial functioning.

While the DSM system is widely used, it has been suggested that the criteria for depressive disorders are too stringent and may not account adequately for some expressions of adolescent symptomatology (Nurcombe, 1994). Concerns have been raised regarding the application of adult criteria to children and adolescents as symptoms of depression are more varied in children and adolescents than they are in adulthood (Gotlib & Sommerfield, 1999). Of particular concern is the lack of consideration of developmental issues, that is the failure to take into account age-related variations in the capacity to conceptualise, access, experience and report emotional states (Gotlib & Sommerfield, 1999). Further research is warranted to explore the question posed by Essau, Conradt and Petermann (1999) as to whether particular subclusters of symptoms characterize the disorder at different ages and

developmental stages. Further, Essau, Petermann, and Reynolds (1999) suggest that the lack of a system of weighting criteria thus producing symptom equivalence is problematic, as is the requirement to have five symptoms to warrant diagnosis.

Symptom levels not reaching criteria in the DSM system can nonetheless have a deleterious impact on children and adolescents warranting intervention. Gotlib, Lewinsohn and Seeley (1995) reported that the presence of clinically relevant levels of symptomatology not meeting DSM-IV criteria for diagnosis conferred considerable risk of poorer psychosocial functioning relative to a nondepressed group. Researchers mindful of the limitations of the DSM system have suggested additional frameworks for thinking about depression in children and adolescents. Investigators have provided a useful framework for categorising depressive phenomena in childhood and adolescence as follows: depressed mood, depressive syndrome and depressive disorder (Compas, Ey & Grant, 1993; Petersen, Compas, Brooks-Gunn, Stemmler et al., 1993).

Depressed mood refers to dysphoric affect varying in severity and for an unspecified period (Compas et. al, 1993; Petersen, Compas, Brooks-Gunn, Stemmler and Grant, 1993). Depressive syndrome refers to a reliable set of empirically derived affective, cognitive and somatic symptoms (Carmanico, Erickson, Singh, Best, Sood & Oswald, 1998). Depressive disorders 'are defined according to clinically derived psychiatric diagnostic criteria and involve a constellation of disturbances in emotional, behavioural somatic and cognitive functioning' (NHMRC, 1997, p11).

The preceding discussion clearly indicates that the classification of adolescent depression is not a simple matter. DSM-IV provides one means of classifying depression in children and adolescents however this method of classification does have limitations. Of particular concern is the fact that DSM-IV

does not provide for the integration of developmental perspectives in understanding and defining depression in children and adolescents (Essau, Petermann & Reynolds, 1999). Given the limitations of the DSM-IV classification, the framework offered by Compas, Ey and Grant (1993), (mood, syndrome, disorder) provides a useful adjunct for classifying depressive phenomena in children and adolescents. The current study will utilize this framework and will assess depressive symptoms in a group of adolescents.

## 1.4. Epidemiology of Adolescent Depression

In order to determine the gravity of the problem of adolescent depression, an exploration of issues relating to epidemiology is warranted. Large discrepancies exist in reported frequencies of child and adolescent depression because of design and sampling issues, differences in ages studied, the different measures used (interview versus self-report) and different criteria for depression. Rates vary according to whether depressive symptoms or diagnostic criteria are used (Kovacs & Gatsonis, 1994).

Petersen, Compas, Brooks-Gunn et al. (1993) report estimates of the 6-month prevalence of depressed mood as ranging from 20 –35 % in adolescent boys and 20 – 40% in adolescent girls. Further, Cubis (1994) reports that 43% of an Australian sample of young people reported a dysphoric mood for at least two weeks in the previous year. Cubis (1994) reported a point prevalence of depressed mood of 8.9% for females and 4% for males using a shortened version of the BDI.

It is estimated that depressive syndrome occurs in 5% of the population (Compas et al., 1993). Birmaher et al. (1996) report point prevalence estimates of Major Depressive Disorder for adolescents range from 0.4% to 8.3%. Cicchetti and

Toth (1998) report that the lifetime prevalence estimate of Major Depressive Disorder in adolescence is between 15% and 20%. Lewinsohn, Rohde and Seeley (1998) concur, suggesting lifetime rates of unipolar depression (major depression and dysthymia) are approximately 20%.

A recent prospective longitudinal study (Oldenhinkel et al., 1999) of 1228 adolescents aged 14 – 17 found a similar level of lifetime incidence of any depressive condition (20%). Rates for major depressive disorders were 12.2%, dysthymia, 3.5% and sub-clinical MDD, 6.3%. Consistent with other findings, these authors found that depression was uncommon in childhood and that depressive disorders were twice as common in females.

In summary, depressive symptoms and disorders occur in children and adolescents with frequency increasing during adolescence. Difficulties in establishing an accurate picture of prevalence relate particularly to the lack of a common assessment methodology.

### 1.4.1. Gender and Adolescent Depression

Comprehensive research has yielded consistent and robust findings across numerous countries that adult women are almost twice as likely as men to be depressed (Piccnelli & Wilkinson, 2000; Andrews et al. 1999; Bebbington, 1998; Nolen-Hoeksema, 1987, 1990; Weissman & Klerman, 1977). The evidence supports differential gender ratios for both subclinical levels of depressive symptoms and depressive disorders (Nolen-Hoeksema & Girgus, 1994). Researchers sought to determine whether ratios are similar for children and adolescents.

Hankin, Abramson, Moffitt, Silva and McGee (1998) found that pre-adolescent boys are more likely to be depressed than pre-adolescent girls both in

clinic samples and in the general population. While this position has some support (Anderson, Williams, McGee & Silva, 1987), there is general agreement that the rate of depression in pre-adolescent girls is either equal to or slightly less than the rates of similar aged boys (Angold & Worthman, 1993; Nolen-Hoeksema & Girgus, 1994; Weissman, Wolk, Wickramaratne et al., 1999). Yet by adolescence, the rates of internalizing problems such as depression are higher among adolescent girls than boys (Wade, Cairney & Pevalin, 2002; Nolen-Hoeksema, 1994; Nolen-Hoeksema & Girgus, 1994; Brooks-Gunn & Petersen, 1991; McGee, Feehan, Williams, Partridge, Silva & Kelly, 1990; Allgood-Merton et al., 1990; Rutter, 1986; Kandel and Davies, 1982).

While some researchers (Leadbeater, Blatt & Quinlan, 1995; Compas, Oppedisano, Connor, Gerhardt, Hinden, Achenbach & Hammen, 1997) did not find significant gender differences, there is abundant evidence (see above) to support gender differences emerging from mid-adolescence and further increasing between 15–18 years (Hankin et al., 1998). Compas and colleagues' (1997) anomalous findings may relate to methodological issues relating to the measurement of depression.

Yonkers (1998) in commenting on Hankin et al. (1998) observes that the higher rate of depressive disorders in girls was not accompanied by an increased recurrence rate in girls, however the burden of depression remains higher in girls and reinforces the need to intervene early to prevent initial episodes.

In summary, it is evident that depression is a serious disorder suffered by increasing numbers of young people as they progress though adolescence. Adolescent females are at least twice as likely as adolescent males to experience depression. A recent Australian report found that the rates of depressive disorders are

three times higher for adolescent females than for males (Moon, Meyer & Grau, 1999). Given the gender variation in the rates of depression, the question of gender response to prevention programs arises. The current study will explore the question of differential gender response to the program being researched.

### 1.4.2. Age of Onset and Duration of Depression

There is general agreement that while depression does occur in childhood the rates are considerably lower for those under 13 years of age. The incidence continues to rise during adolescence with peak indices between 15 – 18 years (Fleming & Offord, 1990; Hankin et al., 1998; Oldehinkel, Wittchen & Schuster, 1999), supporting the decision for the current research to focus on prevention in early to mid adolescence.

Estimates of the duration of MDD vary considerably due in large part to the methodological issues. Essau, Conradt and Petermann (1999) point out that comparison across studies is extremely difficult due to the absence of an appropriate model or paradigm enabling study of the long-term course of depression. Further, there is a lack of agreement on definitions of key constructs (e.g. recovery, remission, recurrence, relapse), differences in length of follow-up, and variations in the numbers of asymptomatic days used to define recovery. Despite the methodological difficulties, the following studies give an indication of the course and outcome of depressive disorders.

Kovacs (1996) in reviewing a number of studies found a median duration of MDD episodes of 7-9 months with approximately 70% experiencing a recurrence within 5 years. Lewinsohn et al. (1994) report a median duration of 8 weeks, however there was a considerable range in the duration of the MDD from 2-520

weeks. The latter study found a recurrence of 5% within 6 months, 12% within 1 year, and approximately 33% within 4 years. Although there is variation in reported rates of recurrence, there is no doubt that a substantial number of young people experience a recrudescence of their symptoms.

NHMRC (1997) in recognising the variation in length of episodes suggests that while episodes can range from a few weeks to many years, the average duration is around 32 to 36 weeks. Longer episodes are associated with more severe episodes of depression, suicidal ideation and suicide attempts (Lewinsohn et al., 1994) and stressful family environment (McCauley et al., 1993).

Kaminski and Garber (2002) used a series of semi-structured diagnostic interviews to examine durations of first episodes of major depression, dysthymia, adjustment disorder with depressed mood and minor depression, in a community sample of high-risk adolescents. Risk was based on history of maternal depression. Episode durations were consistent with other community studies: first episode MDD, 24.53 weeks with 35% experiencing a recurrence; dysthymia, 114.89 weeks; adjustment disorder, 9.42 weeks; and minor depression, 28.74 weeks.

Lewinsohn et al. (1991) report the mean age of onset of dysthymia is significantly earlier than the onset of MDD and point out that dysthymia often precedes MDD in adolescents, who experience both disorders.

The studies reviewed above indicate that while there is some debate about the precise duration of depressive episodes and prevalence estimates vary according to definitions used, the incidence of depression increases during early to mid adolescence supporting preventive intervention with this age group.

## 1.5. Continuity of Adolescent Depression

Rao, Constance and Daley (1999) investigated the sequelae of adolescent depression in adulthood for a group of young women. These authors found that substantial continuity between adolescent and adult depression exists. Risk for new onset and recurrence was observed and was accompanied by interpersonal dysfunction.

The findings of Rao and colleagues are consistent with findings by Lewinsohn, Rohde et al. (1999). Lewinsohn and his colleagues examined the continuity of major depressive disorders in a group of 19–24 year olds with a history of mood disorder relative to a group with nonaffective disorders and a group with no disorder. The rate of major depressive disorder was higher for young adults with a prior history of MDD (9.0%) than for those with nonaffective (5.6%) or no prior history of disorder (3.7%).

Gjerde and Westenberg (1998) examined the contribution of dysphoric mood at age 18 to dysphoria in early adulthood. These authors found that elevated depressive scores at age 18 predicted psychological maladjustment for both genders but more particularly for young women. The results for young men were somewhat influenced by levels of prior anxiety and IQ.

Fombone, Wostear, Harrington and Rutter's study (2001a) provides further evidence for the continuity of depressive disorders from adolescence to adulthood. Fombone et al. (2001a) found significant links between adolescent and adult depression in a 20-year follow-up of 149 individuals treated for depression at the Maudsley Hospital between 1970–1983. A comparison of outcomes for a group with depression and conduct disorder and a group with depression alone demonstrated an elevated risk of adult depression for both groups.

The preceding evidence clearly demonstrates continuity of adolescent depression to adulthood providing support for the case for preventing adolescent depression.

## 1.6. Comorbidity with other Psychiatric Disorders

Lewinsohn et al., (1998, p. 774) state that comorbidity 'refers to the fact that patients with one disorder may be at elevated risk for a second disorder and this co-occurrence may affect the two disorders'. Comorbidity is high in depressed children and adolescents (Cicchetti and Toth, 1998; Kovacs, 1996; Lewinsohn et al., 1998). Cicchetti and Toth (1998) report that between 40% and 70% develop one additional disorder, with 20% to 50% reported to develop two or more comorbid diagnoses. Lewinsohn et al., (1998) found that 43% of adolescents with MDD had a lifetime concurrence of another psychiatric disorder.

The most common comorbid diagnoses include dysthymia, anxiety disorders, disruptive disorders and substance abuse (Harrington, Rutter & Fombonne, 1996; Kovacs, 1996; Lewinsohn et al., 1998). Comorbidity is a serious problem impacting on the depressed adolescent's functioning across a number of domains, leading to relationship problems and academic or work difficulties.

Nottelmann and Jensen (1999) note that the rate of comorbidity of anxiety with depression in population-based studies varies considerably, however these authors suggest that in most studies the range is 28% to 35%. The rate of comorbid depression in anxious children though variable across studies, is generally somewhat lower, most commonly between 15% and 23% (Nottelmann & Jensen, 1999).

Beiderman, Newcorn and Sprich (1991) conducted a comprehensive review of depressive disorders comorbid with attention deficit disorder with and without

hyperactivity (ADD/ADHD) in 19 studies, finding rates from 15% to 75%. Reported rates of comorbid ADD/ADHD in depressed young people in population studies were higher for 9-12 year olds than for 13-16 year olds (Bird, Gould & Staghezza, 1992).

Nottelmann and Jensen (1999) note that while rates of comorbidity of oppositional defiant disorder (ODD) and conduct disorder (CD) in depressed children have been reviewed separately, ODD and CD are often combined. Rates of comorbidity of ODD/CD in depressed children and adolescents also vary considerably.

Research conducted by Fombone, Wostear et al. (2001b) on the long-term impact of comorbid depression and CD found in follow-up 20 years following contact, that adolescents with comorbid CD and depression experienced higher rates of suicidal behaviour and criminal offences and demonstrated more severe and pervasive social dysfunction than a group with depression alone. Knapp, McCrone, Fombone, Beecham and Worstear (2002), in a follow-up of the Fombone et al. study (2001b), concluded that the comorbid depression and CD group had higher utilization of inpatient care and criminal justice services than the depressed group or the general population.

The consequences can be particularly deleterious when depressive illness is comorbid with substance abuse (Aseltine, Gore & Colten, 1998). Rao, Ryan, Dahl, Birmaher et al. (1999) found that the co-occurrence of depression and substance abuse is associated with serious psychosocial morbidity. Comorbidity increases the risk of suicide (Bukstein, Brent & Perper, 1993), is associated with poor treatment compliance (Wolpe et al., 1995), and increased use of treatment services (Kessler,

Nelson, McGonagle, Edlund et al., 1996). Clearly, comorbidity of depression and substance abuse confers considerable risk to optimal functioning.

**Summary**

In summary, depressive symptoms and disorders occur in children with rates increasing in adolescence particularly for girls. Adolescent depression is a serious problem that is undertreated and underrecognised, impacting upon normal development, and often causing considerable distress to young people and their families. Evidence supports the continuity of depression in adulthood. Depression is commonly comorbid with other psychiatric disorders adding to the burden. There is evidence (Gotlieb et al., 1995) to support the fact that depressive symptoms not reaching criteria for a depressive disorder impact on the wellbeing of adolescents. Harrington and Clark (1998) assert that mild forms of depression can lead to severe forms. There is a strong case for preventing depressive symptoms thus altering the trajectory of the development of a severe and debilitating disorder in adolescents (Spence, 1996).

# CHAPTER 2

## RISK AND PROTECTIVE FACTORS IN ADOLESCENT DEPRESSION

An understanding of the risk and protective factors thought to be influential in the development of mental health disorders is crucial to effective prevention and treatment. Risk factors can be defined as variables that increase the likelihood of developing a psychological problem. Protective factors can be defined as variables that lower the risk of developing a psychological problem. Protective factors produce resilience that enables maintenance of psychological wellbeing in the face of adverse risk factors (Arvo, 1994; Spence, 1996). Durlak (1998a) suggests that in a risk and protective factor paradigm, identifying relevant factors for particular problems and being cognisant of the manner in which these factors operate and interact for different target populations at different times is important. Hence, an exploration of the risk and protective factors operating in adolescent depression is warranted.

An investigation of the impact of cognitive risk factors, interpersonal risk factors, family risk factors and stressful life events in the development of depressive symptoms is central to the current study. Thus, a detailed examination of these risk factors in the development of adolescent depression will follow.

Given the disproportionate number of adolescent females reporting depressive disorders, risk factors posited as potentially explaining the increased incidence of depression in female adolescents will be reviewed in this chapter. Risk factors to be reviewed include gender socialization and intensification, biological changes associated with puberty, and coping style. Developmental models available for understanding gender differences in rates of depression will also be discussed.

Prior history of depressive symptoms has been identified as a risk factor for developing a depressive disorder and will also be reviewed. Finally, factors posited as protective against developing depression in adolescence will be considered.

## 2.1. Cognitive Factors

The literature on adult depression has ample evidence to support cognitive models of depression (Beck, 1967; Rehm, 1977; Hollon and Kriss, 1984; Blackburn and Davidson, 1990). Beck's (1976) negative cognitive triad, that is, a negative view of self, world and future, emphasised the role of cognitive distortions in depression. Cicchetti and Toth (1998) observe that research on cognitive aspects of depression in children and adolescence is generally consistent with findings from the adult literature. However Cicchetti and Toth (1998) and Reinecke, Dattilio and Freeman (1996) note the importance of considering developmental factors in cognitive models of child and adolescent depression.

Research confirms that depressed children and adolescents have increased cognitive distortions, negative attributions, hopelessness, and are more likely to attribute outcomes to external factors beyond their control. Additionally, they are more likely to have social skills deficits, and low self-esteem relative to young people who are not depressed (Asarnow & Bates, 1988; Garb & Hilsman, 1992; Garber, Weiss, and Shanley, 1993; Gladstone and Kaslow, 1995; Hammen, 1990; Marton and Kutcher, 1995).

The role of global cognitions in the onset and maintenance of childhood and adolescent depression has been examined by researchers (Hammen, 1990; Weisz, Rudolph et al., 1992; Evans, Brody & Noam, 1995). A relationship has been

demonstrated between depression and negative perceptions of self in both children (Kazdin, Rodgers & Colbus, 1986) and adolescents (Koenig, 1988).

Evans, Brody and Naom (1995) compared the self-perceptions of 416 adolescents, aged 12–18 drawn from three categories: co-morbid mood and conduct disorder; conduct disorder only; and a control group. Subjects with mood disorder reported poorer self-perceptions than subjects without mood disorder and were the only group to experience deficits in job competence and global self-worth. Both the conduct disordered group and the group with comorbid mood and conduct problems reported poorer academic competence. Caution is warranted in interpreting these results, as the comorbidity may have increased the severity of the psychopathology and in turn may have led to more negative self-perceptions. However, these results are consistent with the conclusions of Goodyer et al. (2000) who found that low self-esteem and more ruminations were associated with higher risk of first onset of major depression.

While Asarnow and Bates (1988) suggest that negative beliefs about oneself may cease following remission of depression, Lewinsohn, Roberts, Seeley et al. (1994) in their prospective study, found that pessimism, attributions and self-esteem variables characterised formerly depressed adolescents.

Studies determining the contribution of dysfunctional attributional style have produced differing results (NHMRC, 1997). Kaslow, Rehm, Pollack and Seigel (1988) have shown a concurrent and predictive relationship between dysfunctional attributional style and depressive symptoms, while Hammen, Adrian and Hiroto (1988) found dysfunctional attributions did not predict further episodes of depression independent of initial depressive symptoms.

Depressed children have been found to make more internal, stable and global attributions for failure and more external, unstable and specific attributions for success, leading to a sense of lack of control and a sense of hopelessness (Cicchetti & Toth, 1998).

Depressed children set particularly high expectations of themselves that have been found to contribute to attributions of failure when standards are not met. Lauer, Giordani et al. (1994) investigated memory and metamemory abilities of a group of depressed 9-12 year olds. These researchers found that while only significantly depressed children had memory deficits, all of the depressed children had difficulties on the metamemory tasks, overestimating their abilities. Cicchetti and Toth (1998), in commenting on Lauer et al. (1994), conclude that these children were either overcompensating for feelings of inferiority or had unrealistic expectations of their capacity, potentially confirming their negative self-cognitions and sense of failure.

More recently, Roberts (1999) in her review of cognitive risk factors, examines research looking at the mediational role for negative cognition between negative events and depressive symptoms. While finding qualified support in some studies (Cole & Turner, 1993; Hilsman & Garber, 1995) and support for adolescents only (Turner & Cole, 1994), Roberts (1999) cautions that the exact nature of the relationship between negative cognitions, life events and depressive symptoms remains unclear.

To summarise, cognitive factors are associated with depression in children and adolescents. Depressed children and adolescents can be differentiated from their nondepressed peers on a range of cognitive variables, including levels of cognitive distortions, negative attributions, self-perceptions, social skills, hopelessness and

locus of control. The particular way in which cognitive style interacts with environmental stressors and the role of these factors in depression remains unclear.

## 2.2. Personal Competence

Personal competence, which includes interpersonal skills and coping style, can confer considerable risk for depression in adolescents. There are a number of factors relating to other aspects of personal competence relevant to both genders that have been associated with depression in children and adolescents. Factors to be reviewed below include lack of peer acceptance (Kennedy, Spence & Hensley, 1989), more negative nominations by peers (Cole & Jordan, 1995), poorer social skills (Kennedy et al., 1989; Rudolph, Hammen & Burge, 1994) and poor interpersonal problem solving (Mullins, Siegal & Hodges, 1985).

In a comparison of depressed, nondepressed but fearful children and a control group, Kennedy et al. (1989) found that the depressed children obtained the lowest peer ratings, fewer positive nominations and most negative nominations. More than 75% of the depressed children were classified as being either rejected or isolated. Similarly, Coie (1990) states that rejected children are more likely to be lonely and depressed than others.

Goodyer, Wright and Altham (1990) note that problematic peer relationships and stressful life events impact similarly on the likelihood of emotional disturbance in young people. In their study of friendship patterns of a clinical sample of depressed and anxious young people and a control group aged 7–16 Goodyer et al., (1990) found both anxious and depressed young people had more problematic peer relationships than controls. While Goodyer et al. (1990) found stressful events and problematic peer relationships increased the risk for both anxiety and depression,

Roberts (1999) referring to Stark, Humphrey, Laurent, Livingston and Christopher (1993), suggests there is also evidence for effects specific to depressed youngsters.

Interpersonal problem solving skills are a component of social competence that influences coping (Weisz et al., 1992). Depressed young people appear to be able to generate a similar number of strategies to solve problems as their nondepressed peers but differ in that depressed young people generate more irrelevant or less effective strategies (Doerfler, Mullins, Griffin, Siegal & Richards, 1984; Mullins, Siegal & Hodges, 1985; Goodman, Gravitt & Kaslow, 1995). Further, Herman-Stahl and Petersen (1996) contend that in addition to generating more irrelevant strategies for coping, depressed young people are more likely to suggest avoidant or negative strategies for dealing with their problems.

A variety of factors relating to personal competence and coping style is associated with depressive symptoms. Gender differences in coping style have been identified and are thought to be one explanation for gender differences in rates of depression in adolescence. Gender related issues will be discussed later in this chapter.

Roberts (1999) points out that further research is required to determine whether interpersonal skills deficit is a risk factor for developing symptoms, or the skill deficit is a consequence of the disorder. The salient factor for this study is that psychoeducational interventions can improve social problem solving and skill in managing interpersonal conflict.

## 2.3. Family Factors

### 2.3.1 Genetic Influences

There is evidence to suggest that depression tends to aggregate in families and although the mechanism is not well understood. There is support for the influence of genes in the development of some affective disorders (Neuman, Geller, Rice & Todd, 1997). Adult twin studies provide support for the role of a genetic component for unipolar depression (Kendler, Heath, Martin & Eaves, 1986). In a twin study of 8–16 year olds, Eaves, Silberg, Meyer et al. (1997) found a substantial genetic effect on depression. Similarly, Tharper and McGuffin (1994) studied 8–16 year old twins and found the genetic component increased with age. These authors found that shared environment was the major contributor for twins 8–11 years, however results for the whole sample (8–16 years), indicate a significant genetic contribution (79%) to reports of depressive symptoms.

### 2.3.2. Parental Psychopathology

Parental depression confers a significant risk to children and adolescents (Roberts, 1999; Beardslee & Wheelock, 1994; Downey & Coyne, 1990). Downey and Coyne (1990) found that children of parents with MDD had six times the rate of MDD relative to controls. Harrington and his colleagues (1993) found twice the lifetime prevalence of depression in relatives of depressed children than for a control group. Beardslee, Keller and colleagues (1993), found that adolescents and young adults whose parents had a depressive disorder experienced earlier onset, longer duration and more severe and more frequent episodes of major depression than children of nondepressed parents.

Evidence suggests that maternal depression has an impact on adolescent major depression. Kaminski and Garber (2000) found an association between the number of episodes of maternal depression and adolescent recovery time, with increased episodes being associated with longer recovery time.

Studies of families of depressed parents have found that these families commonly have problematic parenting practices, often characterised by high levels of parent-child conflict (Garrison, Waller et al., 1997; Lewinsohn, Roberts et al., 1994). A number of these families experience higher rates of marital discord, lower cohesion and higher rates of divorce (Beardslee & Wheelock, 1994; Downey and Coyne, 1990) than nondepressed families.

Recent studies confirm that while divorce impacts on adjustment, marital discord is a more salient predictor of childhood adjustment problems (Buehler et al., 1998; Kelly, 2000). Problematic symptoms, including depressive symptoms, were more often found in children of high-conflict marriages relative to children in low-conflict marriages (Vandewater & Lansford, 1998).

Shiner and Marmorstein (1998) were interested in determining whether the findings concerning disturbed family environments applied equally to families with parental history of depression and those with no history of parental depression. These authors found that a greater number of adolescents (47%) who had at some time in their life been depressed, had mothers who had experienced depression, than did control group adolescents (18%). Adolescents and mothers who had experienced depression reported poorer family functioning than adolescents who had been depressed with never-depressed mothers and controls.

An additional finding by Shiner and her colleague is that a disproportionately high number of ever-depressed adolescents came from divorced families. While this

seems to contradict Kelly (2000), it is unclear whether the degree of marital conflict prior to divorce influenced this outcome. Clearly, Shiner et al.'s (1998) study supports the contention that parental depression does impact upon family functioning and adolescent depression.

### 2.3.3. Parent-Adolescent Interactions and Attachments

There is a common belief that parent-adolescent relationships are often conflictual. Research suggests that 20–25% of adolescents have a high degree of conflict with their parents while the majority experience moderate or low levels of conflict (Santrock, 2001). Although there is not total agreement, there is convincing evidence that conflicts are generally more common in early adolescence and tend to decrease over time (Laursen, Coy & Collins, 1998; Collins, Gleason & Sesma, 1997).

Researchers have endeavoured to explore parent-adolescent relationships in an attempt to understand the impact of conflicted relationships on adolescent wellbeing. Collins, Laursen, Mortensen, Luebker and Ferreira (1997) note that differing perceptions of parents and adolescents regarding age-appropriate levels of autonomy are a major source of parent-adolescent conflict. Parent-adolescent conflict is considered to be a normal part of adolescent development (Collins & Laursen, 1992), however conflict does not always have deleterious effects.

Family environment influences the effects of conflict. Conflict occurring in family environments characterized by trust and closeness can promote adolescent development and healthy family relationships. However, when conflict occurs in the context of a hostile family environment, the result can be further alienation between adolescents and parents (Cooper, 1988). Relationships where conflict is frequent and

intense are most likely to have deleterious consequences (Furman & McQuaid, 1992; Smetana, 1996).

Smetana (1988, 1995, 1996) suggests that the adolescent's changing social cognitive abilities provide a means of understanding parent-adolescent conflict. Research conducted by Smetana (1996) suggests that parents and adolescents commonly see contentious issues differently resulting in conflict. For example, while parents may express displeasure at an adolescent's dress sense and perceive the issue in broader terms of responsibility to family or school, ('You have a responsibility to present yourself more appropriately'), the adolescent defines the issue as a personal one ('What I wear is my choice, it's my body') (Santrock, 2001).

Cicchetti and Toth (1995) assert that failure to successfully negotiate developmental tasks contributes significantly to dysfunctional affect and behaviour. One of the primary developmental tasks of adolescence is individuation. Successful individuation involves the adolescent increasingly separating from, while remaining connected to the family. Smetana (1996) concluded that successful individuation is likely to be promoted in an environment characterized by open, clear communication, warmth and trust, with parental willingness to negotiate limits, and adolescent decision making in a developmentally appropriate manner.

Santrock (2001) notes that historically, interest in adolescent development focused strongly on autonomy with little emphasis on attachment. This author contends that there has been a shift recognising the role of attachment in healthy adolescent development, drawing particularly on the work of attachment theorists such as Bowlby (1989) and Ainsworth (1979).

Numerous authors attest to the significance of secure attachment and related concepts such as connectedness to parents for psychological wellbeing (Ainsworth,

1979; Bowlby 1989; Cassidy, 1999; Kobak, 1999; Cicchetti & Toth, 1998; Main, 1996). Secure attachment to parents in adolescence is said to be associated with adolescent social competence and wellbeing (Cooper, Shaver & Collins, 1998; Lieberman, Doyle & Markiewicz, 1999).

Insecurely attached adolescents report lower levels of self-esteem, increased report of symptoms of psychological distress, more frequent use of dysfunctional emotional regulation strategies, and lower levels of perceived support than securely attached adolescents (Cyranowski, Frank, Young & Shear, 2000; Cooper, Shaver & Collins, 1998; Hammen, Burge, Daley, Davila et al., 1995; Kobak & Scerry, 1988).

Cyranowski and her colleagues (2000) assert that adolescent girls with positive parental relationships are less vulnerable to the depressogenic effects of negative life events. Furthermore, these authors suggest that secure attachment can provide a safe means for exploring new relationships and coping with relationship disappointments.

Powers and Welsh (1999) also endorse the importance of parent-adolescent relationships noting that successful individuation requires parents and adolescents to be able to tolerate moderate levels of conflict, communicate clearly with one another and possess the ability to express their differences in a manner that does not lead to misunderstanding. Parental support is deemed crucial for individuation. Powers and her colleague found that in response to the adolescent's internalizing symptoms, daughters and mothers exhibited interpersonal behaviours indicative of difficulties in negotiating autonomy. Additionally, these interpersonal behaviours predicted increases in the daughters' internalizing symptoms one year later.

Parental relationships are particularly important during the adolescent period. While the impact of attachment problems is significant, adolescents can be taught

skills that promote successful individuation together with maintaining functional relationships with their parents.

## 2.4. Stressful Life Events

The link between stressful life events and mental health difficulties, particularly depression, in adults is well established (Kendler, Neale, Kessler et al., 1995; Andrews & Tennant, 1978; Cohen, 1988). Evidence provides some support for the contention that there is a relationship between stressful life events and adolescent depression although it is not well understood (Hammen, Adrian & Hiroto, 1988; Compas, Ey & Grant, 1993).

Ge, Lorenz et al. (1994) followed 374 adolescents over a 4-year period and found a relationship between stressful events and adolescent depression. Further, these authors assert that female adolescents report more negative or stressful events and experience these events as more distressing than adolescent males. Several others researchers concur with these findings (Compas & Wagner, 1991; Larson & Ham, 1993; Siddeque & Darcy, 1984).

Cyranowski, Frank, Young and Shear (2000) support those previously cited, finding a significantly higher number of formerly depressed female adolescents reporting negative events compared with time-matched formerly depressed males and non-depressed females and males. Seventy-one percent of depressed females and only 35% of non-depressed females reported one or more severe negative life events during the 6 months prior to onset of depression, while only 14% of the depressed males and 40% of non-depressed males reported such events during a matched period. These authors report that 95% of the negative events reported were of an interpersonal nature.

Lewinsohn, Roberts et al. (1994), proffer an alternative view. These authors, in a prospective study of 1508 adolescents, found that the depressed adolescents in their study encountered more stressful events before, during and after depressive episodes than non-depressed adolescents. These authors suggest that stressful events did not precipitate depression; rather people who are vulnerable to depression consistently experience more stressful living environments.

Clearly, a number of difficulties exist in assessing the relationship between stressful life events and depression. The interaction of stressful life events with parental psychopathology and/or personal vulnerability is known to be significant. Hammen, Burge and Adrian (1991) found that children and adolescents with a depressed mother experience higher levels of stress relative to those who do not have depressed mothers.

One avenue of research with adolescents has identified and evaluated the role of specific stressors. Another line of investigation gaining attention is the effect of genetic and environmental influences on gender differences in the development of depression in early adolescence.

A number of individual stressful events have been reviewed to determine their impact upon depression. Nolen-Hoeksema (1994) found sexual abuse, parental and peer attitudes and expectations can have significant negative consequences for adolescent girls relative to boys. Wichstrom (1999) did not establish an association between school change and depressed mood in early adolescent girls.

Silberg, Pickles, Rutter, Hewitt et al. (1999) investigated the influence of genetic factors and life stress on depression among adolescent girls. The authors conclude that “the greater heritability for depression in pubertal girls, its genetic mediation over time and the genetic variance for life events may be one possible

explanation for the emergence of increased depression among pubertal girls and its persistence through adolescence" (p. 225). Jacobson and Rowe (1999) also found that genetic factors contributed to the correlations between family and school environments and depressed mood were stronger for females than males.

In summary, there is no clear explanation of the precise nature mechanism by which stressful events lead to depressive symptoms. Research has shown girls report greater numbers of stressful events than boys. Further research is required to determine whether a stress-diathesis model in which stressful events combined with a particular vulnerability such as coping style or genes may shed more light on the relationship between stressful events and depressive symptoms. Cognitive factors such as appraisal of stressful events and perception of locus of control can be modified to alter the impact of stressful events.

## 2.5. Gender and Adolescent Depression

The literature has consistently indicated that adolescent females are far more likely than males to experience depressive symptoms (Nolen-Hoeksema, 1994; Cyranowski, Frank, Young & Shear, 2000). Numerous attempts have been made to elucidate the process mediating gender differences in depressed adolescents. Research has focused on specific potential risk factors and combinations of risk factors that have been correlated with the emergence of depression and the role of these factors in producing gender differences in depression. Risk factors implicated include: gender socialisation and intensification; biological changes associated with puberty; coping style; and interpretation of stressful life events. Clearly some of these risk factors may also be influential in depression in adolescent males.

Attempts have been made to define theoretical models to explain gender differences in adolescent depression (Nolen-Hoeksema & Girgus, 1994; Cyranowski, Frank, Young & Shear, 2000). While these models further an understanding of processes potentially implicated, there is no definitive model explaining the emergence of gender differences in levels of depression in adolescence. The following section outlines hypotheses presented as potentially explaining the greater prevalence of depression in females.

The gender intensification hypothesis (Hill & Lynch, 1983) has been suggested as one explanation for the emergence of gender differences in depression in early adolescence. This premise asserts that there is an increase in gender-differential socialisation during early adolescence. Adolescents become more aware of and identify more strongly with same-sex stereotypes. It is suggested that female characteristics (for example, more emotional, less assertive coping style) may be more depressogenic than male characteristics (Nolen-Hoeksema & Girgus, 1994). The following sections of this chapter will review gender-specific characteristics correlated with depression in some detail.

Wichstrom (1999) provides qualified support for the gender intensification hypothesis, finding that feminine, though not masculine, sex role identification to be one influential element in explaining gender difference in depressed mood. This author acknowledges the role of other factors and posits an extended version of the gender intensification hypothesis in which gender differences could be at least partly explained by increased developmental challenges for girls, particularly pubertal development, dissatisfaction with weight and attainment of a mature female body.

Angold, Costello and Worthman (1999) and Patton, Hibbert, Carlin, Shao et al. (1997) found that pubertal status is more influential than age in predicting

depression in adolescent girls. However they acknowledge that it is difficult to separate the impact of attitude to pubertal change and the biological impact of hormonal change. Nolen-Hoeksema (1994) suggests that hormonal changes in early adolescence are not directly implicated but may have an indirect role that is currently not well understood.

Numerous studies support the fact that physical changes occurring at puberty are welcomed by boys but not as valued by girls (Brooks- Gunn, 1988; Petersen, 1979; Koff, Rierden & Stubbs, 1990). While boys who are dissatisfied with their bodies are also likely to become depressed, a number of studies indicate that relative to boys, girls' more negative body images are associated with increased levels of depression (Allgood-Merton et al., 1990; Girgus, Nolen-Hoeksema & Seligman, 1989). Nolen-Hoeksema and Girgus (1994) agree that while body dissatisfaction may account for a large part of gender differences in depressive symptoms in adolescents, it is not the sole explanation.

Angold, Costello, Erkanli and Worthman (1999) recently investigated whether morphological changes associated with puberty or the hormonal changes underlying these changes were more strongly associated with rates of depression in adolescent girls. Angold et al. (1999) conclude that explanations should focus on factors associated with changes in androgen and oestrogen levels rather than on morphological changes of puberty. Despite the methodological difficulties with this study, the findings provide an interesting basis for further research. While hormone levels are obviously influential, attitudes to bodily changes are influenced by a host of psychosocial factors, the importance of which should not be underestimated.

Extensive research has documented a number of differences in male and female coping styles and the relationship of particular styles to risk of depression.

Nolen-Hoeksema and Girgus (1994) identify the following coping styles that could be viewed as potential risk factors for depression: dependence on others; causal attributions and learned helplessness; instrumental traits; and ruminative coping and examine the evidence for the emergence of gender difference in depression in early adolescence.

Reliance on approval of others for self-esteem is a potential risk factor for depression. Nolen-Hoeksema and Girgus (1994) state that as adolescent girls adopt a more feminine role this could lead to greater reliance on relationships with others for self-esteem. These authors assert that there is no evidence that adolescent girls are more dependent on others for self-esteem than adolescent boys.

Cyranowski, Frank, Young and Shear (2000) contend that while male relationship patterns are commonly characterised by a preference for independent activity, mastery or agency, females' social relationships often demonstrate a strong affiliative style. These authors define affiliative style as "a preference for close emotional communication, intimacy, and responsiveness within interpersonal relationships."(Cyranowski et al., 2000, p. 22). Affiliative style alone is not considered to be potentially depressogenic, however given that relationships are particularly significant for adolescent girls, relationship problems do impact upon self-esteem and are commonly reported by depressed adolescents.

A popular explanation for the tendency to depression in women is linked to a belief that women tend to lack assertiveness, are uncertain of their competence and blame themselves for bad events. Studies looking at causal attributions and learned helplessness, one means of operationalising assertiveness, provide mixed results. Some studies have found that females' attributions are more self-defeating and indicating more helplessness than males (Basow & Medcalf, 1988; Frey & Rubble,

1987) while others have not shown gender differences (Winfield, 1988; Roberts & Nolen-Hoeksema, 1989).

Assertiveness has been commonly defined in this research tradition as instrumental traits (Wichstrom, 1999). Studies of assertive or instrumental traits and depressive symptoms indicate adolescents with higher scores of assertive or instrumental traits were less likely to be depressed. Allgood-Merton et al., (1990) and Petersen et al. (1991) found that endorsement of masculine-type traits to be a reliable predictor of depressive symptoms in adolescents and accounted for a substantial amount of gender difference in depression. Wichstrom (1999) on the other hand, found negligible gender difference on scores of masculinity in Norwegian boys and girls, yet almost identical gender differences in depressed mood to those commonly reported. This finding, according to Wichstrom, weakens the widespread acceptance of masculinity as an explanation for gender difference in depressed mood (Wichstrom, 1999).

Ruminative coping is a term used by Nolen-Hoeksema (1990) to describe a pattern of dealing with depression or distress that is characterised by passive rumination rather than actively distracting or changing the situation and is implicated in developing and maintaining depression (Nolen-Hoeksema & Morrow, 1991; Nolen-Hoeksema, Parker & Larsen, 1994). Ruminative responses affect capacity to generate solutions to problems and appear to strengthen negative thoughts and memories (Nolen-Hoeksema, 1994). Adult women and adolescent girls have been found to use this style of coping more commonly than men and boys (Nolen-Hoeksema et al., 1993; Girgus et al., 1989).

Nolen-Hoeksema and Girgus (1994) acknowledge the importance of specific or combinations of variables but argue that a model framework may be useful in

extending an understanding of the emergence of gender differences in adolescence. These authors evaluate three models as possible explanations of the sex differences in depression in adolescence. The first model suggests that the same factors cause depression in both boys and girls but these factors are more prevalent in girls once they reach early adolescence. The second model asserts that factors leading to depression are different for boys and girls and increase more for girls than boys in early adolescence.

The third model is an interactive model asserting that girls are more likely than boys to have characteristics that put them at risk of depression before puberty. An interaction between existing characteristics in girls and certain challenges of early adolescence can explain the emergence of gender difference (Nolen-Hoeksema & Girgus, 1994).

Nolen-Hoeksema and Girgus (1994) evaluate the evidence and conclude that there is insufficient evidence to support Model 1 and Model 2. These authors suggest that Model 3 provides the best explanation for the emergence of gender differences in depression.

This model contends that gender differences in personality or behavioural style (for example, ruminative coping), present before adolescence are risk factors that interact with increased challenges in early adolescence rendering adolescent girls and adult women more likely than males to become depressed (Nolen-Hoeksema and Girgus, 1994, p. 438).

An alternative model for explaining gender differences in adolescent depression is proposed by Cyranowski, Frank, Young and Shear (2000). Cyranowksi and colleagues suggest a model of correlated consequences, contending that intensified affiliative need experienced in combination with difficulties negotiating

the transition to adolescence may increase the likelihood that negative events trigger the onset of depressive episodes.

To summarise, numerous individual factors and combinations of factors are posited as explaining the differential rates of depression in boys and girls. As yet there is no definitive evidence to support one particular factor or model. Rutter (1999) suggests that an increase in the risk of psychopathology is unlikely to be due to any single factor, rather that it is multifactorial. On balance, a combination of factors appears to be the most likely explanation for the disproportionately high number of young females experiencing depression. It would appear likely that a stress-diathesis model where a pre-existing vulnerability in combination with a particular negative or stressful event or events could provide an explanation. Nolen-Hoeksema et al. (1994) and Cyranowski et al. (2000) seem to support such a model although their explanation of the vulnerability differs. Further research is required to definitively explain gender differences in adolescent depression.

## 2.6. Prior History of Depressive Symptoms

Previous clinical depression is a risk factor for further depressive episodes. Lewinsohn, Rohde and Seeley (1998) found that previously depressed adolescents experience some depression-related psychosocial impairments. Additionally, these authors report that previously depressed adolescents continue to experience some depressive symptoms, interpersonal dependency, negative cognitions and negative attributions for failure.

NHMRC (1997) asserts that psychological conditions or symptoms including anxiety, conduct disorder, substance abuse and eating disorders are risk factors for

adolescent depression. Cicchetti and Toth (1998) note that 40–70% of adolescents have one additional disorder and a smaller percentage attract multiple diagnoses.

Demoralised adolescents also have an increased risk of developing future affective disorders (Clark et al., 1995). A prospective study by Weissman and colleagues (1992) reported that adolescents with subclinical levels of depression are six times more likely to develop major depression. Lewinsohn et al. (1998) agree that subclinical or subsyndromal depression is of concern, impacting significantly on psychosocial functioning relative to the impact on controls.

**Summary**

In summary, recognition of the relevance of factors other than genetic contribution provides an opportunity for interventions targeting individual or combinations of risk factors as a means of preventing or ameliorating the severity and chronicity of depressive symptoms. The focus of the current study is on addressing psychosocial risk factors known to influence depressive symptoms and to examine the factors that are possibly implicated in the higher incidence of depression in female adolescents.

## 2.7. Protective Factors

Research into protective factors is less extensive than research focusing on risk factors. The risk factor literature suggests avenues for investigation regarding protective factors. As the focus in mental health shifts from treating disorders to a spectrum approach (Mrazek & Haggarty, 1994) which sees prevention of disorders and promotion of mental health as integral elements of mental health policy, there may well be a greater emphasis on further researching protective factors. Clearly,

there is some repetition in the previous exploration of risk factors and the following review of protective factors, however an emphasis on a competence focus is considered to be important.

Adolescence can be a time of particular vulnerability for some young people as they negotiate the transition from childhood to adulthood (Santrock, 2001). The term resilient is used to describe adolescents who adapt well in the face of transitional challenges and other life stressors (Herman-Stahl & Petersen, 1996). Factors with the potential to assist children and adolescents to maintain their sense of self and develop adaptively in the face of adversity have been identified by a number of researchers. Exogenous factors including family, peer and other forms of social support and factors intrinsic to the individual such as coping style, contribute to resilience (Garmezy, 1993; Garmezy et al., 1994; Herman-Stahl & Petersen, 1996; Petersen, Leffert et al., 1997; Resnick et al., 1993; Werner, 1989; Coie, Watt et al, 1993).

Family relationships that are characterised by warmth and cohesion and those in which parent-child relationships are positive are protective (Garmezy, 1993; Spence; 1996). Lerner and Galambos (1998) note that a "satisfying family life" (p.431) promoting resilience occurs across diverse family structures and ethnic origins, social and economic circumstances. Further, these authors note that external factors such as faith can provide support for families.

As noted previously, relationships with parents are often strained during early adolescence as the adolescent endeavours to negotiate the task of individuating from their parents. For most, parent-adolescent conflicts centre on mundane issues and do not lead to psychopathology (Laursen & Collins, 1994; Montemayor, 1983). External social supports such as extended family, neighbours, or teachers can

provide supportive relationships promoting resilience where family relationships are conflictual or unsupportive (Gamezy, 1993).

The changing family relationships in adolescence mean that peer relations become increasingly significant. Close peer relationships are thought to be protective (Garnefski, 2000; Petersen, Leffert et al., 1997). Family, peers and schools are acknowledged as important potential support networks for adolescents (Steinberg, 1999). Studies have indicated that negative perceptions of these three support systems impact negatively on adolescent wellbeing (Fergusson et al., 1994; Garnefski & Diekstra, 1996; Garnefski & Okma, 1997; Kashani et al., 1997).

The relative importance of family, peers and school as support systems to adolescents has been investigated with varying results. While some studies indicate parental influences are stronger than peer influences (Helsen et al., 1997; Poole, 1989) other studies support the opposite position (Aseltine, 1995; Jessor & Jessor, 1997).

In a recent study of 11,516 adolescents, Garnefski (2000) investigated age differences in perceptions of family, school and peers and their relationship to depressive and antisocial symptoms. This author concluded that independent of age, negative perceptions of family had the strongest relationship with depressive symptoms and antisocial behaviour. Depressive symptoms had a stronger independent relationship with negative perceptions of peers than with negative perceptions of school. Thus, positive family and peer relations are central to the wellbeing of adolescents.

Resnick, Bearman et al. (1997) argue strongly that the quality of adolescent connection to family and school, the two most common social contexts for adolescents are crucial in promoting resilience. This large study involved over

12,000 adolescents across 80 high schools. Resnick et al. found parent-family connectedness and school connectedness to be associated with lower levels of emotional distress.

Effective coping with stressful events constitutes an important protective factor. The importance of successful interpersonal relationships has been highlighted above. Obtaining skills that enhance adolescent abilities to manage interpersonal difficulties effectively are protective.

Petersen, Leffert et al. (1997) distinguish between 'approach-oriented' and 'avoidant-oriented' coping. Approach-oriented coping represents both internal and active ways of coping by acting to change the impact of stressors through cognitive or behavioural means. Avoidant-oriented coping on the other hand employs passive and avoidant methods of coping by either avoiding or denying the existence of stressors (p.478). Herman-Stahl et al. (1995) found those who predominantly use an approach-oriented coping style reported fewer depressive symptoms than those using a more avoidant coping style.

Problem solving deficits have been associated with depressive symptoms in children and adolescents (Kaslow, Rehm & Segal; 1984; Mullins, Segal & Hodges, 1985). Petersen, Leffert et al. (1997) in a study of 335 adolescents in Grades 6–8, and Grades7-9 in two separate school communities, found that teaching coping skills which included problem solving and social competence decreased the incidence of depressive symptoms in girls.

**Summary**

In summary, a number of risk and protective factors have been reviewed. Clearly preventive interventions should be based on an empirically derived

understanding of risk and protective factors. This review provides important pointers as to where to intervene. Cognitive factors such as negative attributional style, beliefs about, and expectations of oneself, interpersonal style including capacity to form friendships, manage conflicts with friends and parents, and coping capacity are amenable to change and would be appropriate for inclusion in a depression prevention program. The discussion of risk factors thought to be relevant to differential gender rates of depression raises the question of the possibility of differential gender responses to a preventive intervention. Thus an investigation of differential gender responses in the current study will be investigated.

# CHAPTER 3

## PREVENTION OF ADOLESCENT DEPRESSION: THE NEED FOR A SUSTAINABLE UNIVERSAL APPROACH

The previous chapters presented the case for prevention and identified risk and protective factors to be addressed in efforts to prevent adolescent depression. This chapter will commence with a review of the application of prevention principles to mental health. A case will be made for the merits of universal prevention, particularly in terms of providing ease of access to programs and the acceptability of this approach to adolescents. The differences between efficacy and effectiveness studies will then be discussed. It will be argued that support for prevention of depression programs should include studies conducted under "real world" conditions, optimising potential for high recruitment and retention rates and sustainability. Outcomes and limitations of previous studies designed to prevent adolescent depression will follow. Finally, the research questions examined by the current study will be outlined.

## 3.1. Prevention in Mental Health

Silverman (1995) asserts that the notion of prevention has existed for many years, stating that in the early 1950s two physicians (Leavell and Gurney Clark) defined three levels of prevention: primary, secondary and tertiary that could be applied to all disorders. Caplan (1964) applied these levels of prevention to mental health.

Primary prevention, according to Caplan (1964) aims to reduce the number of new cases by intervening before disorders occur. Secondary prevention seeks to lower the rate in the general population while tertiary prevention seeks to decrease the disability associated with existing disorders (Raphael, 1992; Centre for Mental Health, 2000).

Caplan's framework fails to recognise the fact that the distinction between the categories is often not clear cut and the confusion that has ensued has led to difficulties for health workers, policy makers, researchers and members of the community. Critics of this classification system suggest it is in part an oversimplified view (Raphael, 1992) and is based on a mechanistic conception of health and disease that does not adequately account for factors influencing psychological disorders (Gordon, 1983).

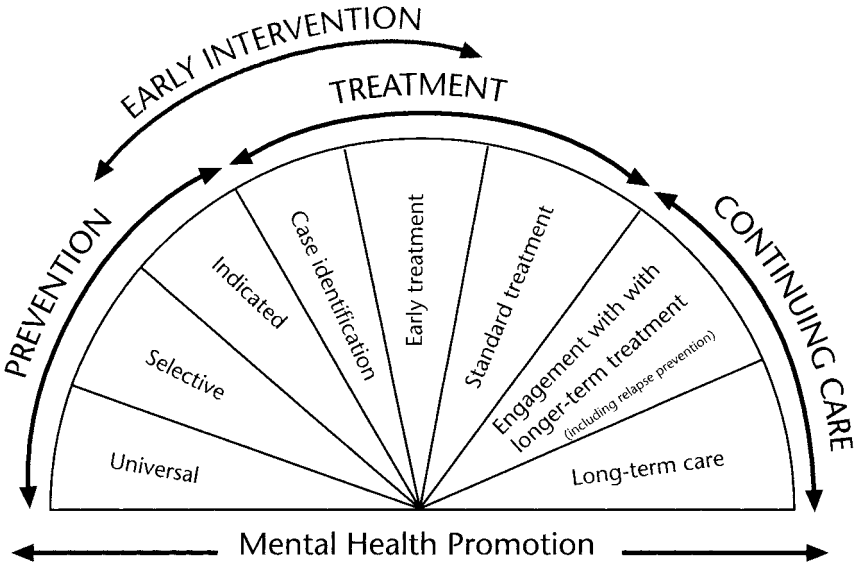
Spence (1996) notes that there is evidence to support a trajectory model (a gradual development of disorder) rather than clear-cut distinctions between the presence and absence of a disorder. For example, mild depressive symptoms in primary school aged children can be a risk factor for the development of depressive disorder in adolescence. Prevention according to Spence (1996) could be viewed as any endeavour to alter, at any point, the trajectory to severe, and debilitating psychological disorder.

Debate continues as to the form of an effective classification framework for preventive interventions for mental health disorders. The US Institute of Medicine [IOM] Committee on Prevention of Mental Disorders (1994) found that the application of the primary, secondary and tertiary classification system is problematic for mental health. The committee recommended use of the term

prevention only for interventions that occur **before** the initial onset of a disorder (Mrazek & Haggerty, 1994).

The Mental Health Intervention Spectrum for Mental Disorders (see Fig 3.1) is the classification framework devised by the IOM committee on prevention. This classification distinguishes between intervention target populations rather than stages of the disorder.

Figure 3. 1 The Mental Health Intervention Spectrum for Mental Disorders




Mrazek and Haggerty, 1994, p.23.

The three prevention components of this classification framework are universal, selective and indicated. Universal prevention interventions are targeted to whole population groups who have not been selected on the basis of individual risk. An example of a universal prevention intervention is a program designed to enhance resilience and coping skills for all students in a specified grade.

Selective prevention interventions are targeted at individuals whose risk (imminent or lifetime) of developing a mental health disorder is significantly higher than average. An example of a selective prevention intervention is a coping skills program for students whose parents have been diagnosed with a mental health disorder.

Indicated prevention interventions are directed to high-risk individuals who have minimal but detectable signs and symptoms but who do not reach criteria for diagnosis using an accepted classification system such as DSM-IV. An intervention for adolescents reporting subclinical levels of depressive symptoms such as the intervention by Clark, Hawkins, Murphy, Sheeber, Lewinsohn and Seeley (1995) is a good example of an indicated prevention intervention.

Universal interventions are consistent with population health approaches to mental health, potentially conferring significant population benefits. Universal interventions have the advantage of reaching whole populations regardless of current or future risk status. Further, Rose (1992) contends that a large number of people at a small risk gives rise to more cases of disease or disorder than a small number at a large risk, thus lessening risk across the population and lessening the number crossing the threshold to mental disease or disorder (Rosenman, 1998).

Another advantage of universal programs is that the general public is more willing to support universal rather than targeted programs (Offord, Kraemer, Kazdin, Jensen and Harrington, 1998). Adolescents are sensitive to appearing to be different to their peers (Santrock, 2001), therefore the fact that universal interventions avoid labelling or stigmatisation is particularly advantageous for adolescents. A further advantage is that universal group programs include a range of high and low functioning individuals allowing higher functioning individuals to contribute

positively and model appropriate communication, positive thinking and problem solving skills.

A major disadvantage of universal programs concerns expense, as they require more resources to implement than selective or indicated programs. In addition, the benefit to an individual is often small and detecting overall benefit can be difficult as effect sizes are likely to be small. Further, universal programs include individuals who are unlikely to develop a disorder (Offord et al., 1998).

Selective and indicated programs have the advantage of being more tailored to individual needs and are more likely to target those individuals most in need of intervention, however uptake is often least among those who are at greatest risk. Selective and indicated programs have the potential to be efficient, nonetheless screening and identification can be costly and stigmatising (Offord et al., 1998).

Durlak and Wells have written extensively on prevention programs for children and adolescents (1997; 1997a; 1998a; 1998b). These authors continue to use the term 'primary prevention' suggesting there are two major dimensions that characterise primary prevention. Firstly, the level of the intervention, that is, either person- or environment-centred and secondly, the means of selecting the target population. The authors differentiate three means of selecting the target population: whole populations (universal); those considered at risk for developing problems; or those about to experience potentially stressful life events or transitions. There are obvious similarities between Durlak and Wells' definition of primary prevention and the Institute of Medicines' [IOM] (1994) universal, selected and indicated levels of prevention.

There has been a shift in emphasis to expand the role of primary prevention to address protective as well as risk factors. Durlak and Wells (1997) note that

primary prevention has expanded from a focus on preventing specific problems to include the prevention of emotional and behavioural problems and the promotion of mental health. Cowen (1994) concurs, suggesting that developing competencies can enhance psychological wellbeing. The above definition of primary prevention is much broader than Caplan's definition.

The broadening of the definition above to include optimising wellbeing raises the question of the relationship between prevention and health promotion. Price (1998) states that mental health promotion focuses on enhancing wellbeing and enhancing coping capacities of communities as well as individuals, while preventive interventions focus on avoiding the development of disorder.

Commonwealth Department of Health and Aged Care (1999) notes that while the goals of prevention and promotion differ, the two intervention frameworks may sometimes use similar approaches and produce similar outcomes. A mental health promotion intervention aimed at increasing wellbeing may also decrease the incidence of a particular disorder.

Debate continues regarding the breadth of the conceptualisation of prevention. Albee (1996) criticises the Institute of Medicine's narrow conceptualisation of prevention on the grounds that the IOM conceptualisation excludes strategies that seek to promote mental health. Zubrick (1998) regards the distinction between prevention and promotion as scientifically unsound as it separates theories and activities that are known to be on the causal pathway of mental health disorder and distances providers and communities.

Further, Zubrick asserts that an opportunity exists to "integrate prevention and promotion through the fair-brokerage of good theory, science and practice,

bridging between science and practice of treatment on the one hand and the science and practice of prevention and promotion on the other" (Zubrick, 1998, p.7).

Despite the continued theoretical debate, there is agreement that preventive interventions should aim to reduce risk factors and aim to enhance protective factors. Thus effective preventive programs are informed by the literature on risk and protective factors (Coie, Watt, West, Hawkins et al., 1993; Kazdin, 1993; Zubrick, 1998; Centre for Mental Health, 2000; Spence, 1996).

While universal, selective and indicated approaches have advantages and disadvantages, a universal approach that includes skill development that could be considered health promotion was selected for the current study as this approach is competence oriented, developmentally appropriate, non-stigmatising with maximum population penetration.

## 3.2. Efficacy and Effectiveness

Although there is evidence to support efficacy there has been no research supporting effectiveness trials to prevent adolescent depression. The imperative to ensure that contemporary psychological practice is empirically supported occurs in an era demanding greater accountability for allocation of health program funding. Researchers evaluating treatment programs have been asked to consider the following questions: a) Has the treatment been shown to be beneficial in controlled research; b) Is the treatment useful in applied clinical settings and if so, with what patients and under what circumstances; c) Is the treatment efficient in the sense of being cost-effective relative to other alternative interventions? These questions relate to the efficacy (including clinical significance), effectiveness (or clinical utility), and efficiency (or cost effectiveness) of treatment (Chambless & Hollon, 1998).

The literature on outcome research distinguishes between studies of efficacy and effectiveness. Efficacy studies determine whether interventions improve outcome under controlled conditions using design features such as a control or placebo condition, randomisation, standardised treatment protocols, homogeneous samples, and use of blind subjects, providers and evaluators (Wells, 1999). Efficacy studies are generally conducted using small sample sizes under closely regulated conditions. A typical example of an efficacy study is a randomised controlled trial conducted in a structured university setting (Hoagwood et al., 1995).

According to Chambless and Hollon (1998) to qualify as efficacious studies require replication by at least two independent groups and treatment requires successful comparison with placebo or rival treatments. Additional criteria enumerated by these authors relate to outcome assessment, treatment implementation, data analysis and experimental design (see Chambless & Hollon, 1998 for the complete set of criteria).

Assessment of the clinical utility or effectiveness of interventions is also important (Chambless & Hollon, 1998). Effectiveness studies evaluate outcomes under real world conditions, that is, conditions approximating usual care (Wells, 1999). While effectiveness studies present numerous methodological challenges, they give a clearer indication of the likelihood of the success of the intervention in the real world. Identifying efficacious interventions for children and adolescents that can be embedded in a "real world" context is important given current emphasis on a population health approach to mental health problems.

While there is robust discussion in the literature regarding the strength and limitations of efficacy and effectiveness methodologies, most researchers agree that an integration of approaches is necessary (Clark, 1995; Hoagwood et al., 1995;

Chambless & Hollon, 1998). There are however, differing views on ways of integrating efficacy and effectiveness approaches to research that will lead to the provision of evidence-based interventions that are effective across community populations, in real world settings, and able to be implemented by diverse practitioners (Klein & Smith, 1999; Norquist et al., 1999; Westen & Morrison, 2001; Nathan, 2001).

Integrating efficacy and effectiveness trials is challenging due to design and methodological differences. Methods commonly employed by efficacy studies such as randomised control are considered to exemplify good science, however concerns about some of the limitation of this method have been raised, particularly regarding the balance between internal and external validity (Weston & Morrison, 2001). Clearly, sample homogeneity achieved by strict inclusion and exclusion criteria, random assignment of subjects, fixed treatment duration, specially selected and trained clinicians and manualised treatment protocols are used to maximise confidence that treatment outcomes are attributable to the treatment (internal validity). It is argued that the emphasis on internal validity can impact on the external validity, that is, the transportability or generalizability of treatment outcome to real world conditions (Weisz et al., 1995; Norquist et al., 1999). It should be noted that this does not assume that all efficacy studies lack external validity, nor do all effectiveness studies demonstrate external validity (Norquist et al., 1999; Klein & Smith, 1999; Chambless & Hollon, 1998).

In addition to problems with generalization, efficacy studies can limit the sustainability of an intervention. The notion of capacity building, which is an approach to developing sustainable skills, structures, resources and commitment to improve health across all sectors to prolong and increase health gains (Hawe et al.,

2000) is a key concept in contemporary health promotion. Program sustainability is considered an integral component of capacity building (Hawe et al., 1998).

NSW Health Department (2000) states that partnerships between health and education have the potential to be very beneficial. This document enunciates policy principles with the stated goal "to provide directions to the NSW health system in developing effective and sustainable approaches for working with schools to improve health" (p.10) Principle 3 clearly states that initiatives within schools should aim to achieve sustainable outcomes. The current effectiveness study aims to enhance the sustainability of a preventive intervention.

### 3.2.1. Integrating Efficacy and Effectiveness

The discussion on the efficacy-effectiveness distinction raises a number of pertinent issues for "real world" research. There has been some debate regarding the usefulness of this distinction (Chamless & Hollon, 1998). Hoagwood et al. (1995) provide a useful model to describe the relationship between efficacy and effectiveness research.

Hoagwood et al. (1995) described a dimensional model in which the relationship between efficacy and effectiveness is viewed in terms of continuous dimensions rather than discrete phases. This model conceptualizes the relationship in terms of three major continuous dimensions: intervention; validity; and outcome, each represented on separate axes.

The intervention axis varies between highly structured manualised interventions generally using a single treatment modality and commonly short term, to less structured interventions using multiple modalities conducted over a longer duration. The validity axis establishes whether internal or external validity is the

primary focus of the study. According to this model, external validity cannot be investigated until internal validity has been established. Hoagwood et al. (1995) observe that effectiveness researchers face a challenge in preserving internal validity when implementing interventions in community settings with more heterogeneous populations. In the current study while the emphasis was on external validity of the intervention, attempts were made to retain some of the rigour of the efficacy study by using a manualised program.

The final axis refers to measurement of outcomes. Effectiveness studies generally focus on a range of outcomes. In addition to symptoms, behaviours or diagnoses outcomes, effectiveness researchers commonly assess the broader impact of the intervention, including consumer-based perspectives. The current study seeks to address the broader impact of the intervention by exploring consumer perspectives, that is, the adolescents' perceptions of the usefulness and acceptability of the intervention, as this has been a neglected area in prevention of adolescent depression studies.

Harnett (2000) notes that the degree of control over data collection could fit on the final axis. Clearly data collection is more difficult in naturalistic settings where limited control, time constraints and reliance on others can pose challenges not experienced in more closely controlled laboratory settings.

The dimensional model provides a means of integrating efficacy and effectiveness approaches to outcome research. Further, this model highlights the complex nature of "real world" research. More recently, additional proposals for integrating efficacy and effectiveness approaches have been put forward (Klein & Smith, 1999; Norquist et al., 1999; Westen & Morrison, 2001) that are consistent with a dimensional model. All envisage a form of integration that optimises the

rigour of the efficacy model and the transportability of the effectiveness model (Nathan, 2001). The challenge for contemporary researchers is to trial creative approaches to achieve this goal.

There is no doubt that there is a strong case for preventing adolescent depression, yet the challenge to provide a sustainable, evidenced-based program that has maximum population penetration remains. The current research will address this challenge.

## 3.3. Prevention Programs for Depression

Interest in programs designed to prevent childhood and adolescent depression is relatively recent. Studies of selective and indicated programs targeting adolescence with elevated levels of depressive symptoms have been encouraging (Clarke, Hawkins, Murphy, Sheeber, Lewinsohn & Seeley, 1995; Jaycox, Reivich, Gillham & Seligman, 1994; Clark, Hornbrook, Lynch et al., 2001). However, there are very few published evaluations of universal programs designed to prevent adolescent depression (Rice, Herman & Petersen, 1993; Rice and Meyers, 1994; Clarke, Hawkins, Murphy & Sheeber, 1995; Shochet, Dadds, Holland, Whitefield & Oscarby, 2001).

The adverse consequences of subclinical and depressive disorders for adolescents (Lewinsohn et al., 1998), the underrecognition and undertreatment of adolescent depression (NHMRC, 1997) and the current policy shift in Australia towards prevention of mental health disorders (Mental Health Promotion and Prevention National Action Plan, 1998) are well documented. There is a need for a range of evaluated programs across the universal, selective and indicated spectrum that is developmentally appropriate and effective in preventing adolescent

depression. Offord et al. (1998) concur, suggesting that an optimal mix of universal, targeted and clinical programs are needed to lower the burden of suffering associated with child psychiatric disorders.

A number of indicated programs have been conducted. Firstly the Pennsylvania Depression Project (Jaycox et al., 1994) which is one of the more successful depression prevention programs. In this study, adolescents aged 10–13 years of age were screened for depressive symptoms measured on the Child Depression Inventory (CDI, Kovacs, 1985) and high levels of conflict with parents as measured on the Child's Perception Questionnaire (Emery & O'Leary, 1982). Students invited to participate on the basis of elevated pre-test scores were randomly allocated to either a wait-listed control or one of three treatment groups focusing on either cognitive skills, social problem solving or combined cognitive and social problem solving.

The cognitive component of the program assisted participants to identify, evaluate and modify their negative beliefs. The program also assisted the young people to identify pessimistic attributions and to generate alternatives that were more optimistic and realistic. The social problem solving entailed specific training in interpersonal problem solving using effective communication, negotiation and assertiveness skills.

The six prevention intervention groups of 10–12 students met for an hour and a half weekly for twelve weeks. The prevention groups were combined as no significant differences were found between prevention groups. The combined groups resulted in a final sample of 69 in the prevention group and a control group of 49 students. Results indicate that at post-test, six month and two-year follow-up, the

prevention group reported fewer depressive symptoms (Gillham, Reivich, Jaycox & Seligman, 1995).

A follow-up study at three years found a continuing positive effect of the intervention on explanatory style, but there was no longer a significant effect on depressive symptoms (Gillham & Reivich, 1999). Notwithstanding the 3-year follow-up, this research indicates that a skills-based program focusing on cognitive and interpersonal problem solving appears to build resilience against depression in early adolescence. A limitation of this study, common to many prevention studies (Gillham, Shatte & Freres, 2000), was the low initial recruitment rate of between 13 and 19 percent, indicating a potential selection bias, and a high attrition rate of 30 percent.

In another indicated trial Clarke, Hawkins, Murphy, Sheeber, Lewinsohn and Seeley (1995) screened 1652 Grade 9 and 10 adolescents, aged 14 to 15 years, using the Centre for Epidemiological Studies – Depression (CES-D; Radloff, 1977). The 471 adolescents with elevated levels of depressive symptoms were invited to participate in the study, initially by undertaking a diagnostic interview. Only 222 of the 471 agreed to participate in the study. Following the diagnostic interview, 46 students who met criteria for a depressive disorder were referred to community services. Of the 172 remaining adolescents with elevated but subclinical levels of depressive symptomatology, 150 agreed to participate and were randomly allocated to either the prevention group (n= 79) or usual care (n=74).

The prevention group participated in 15 forty-five minute sessions conducted after school over a period of three weeks. The theoretical orientation of the "Coping with Stress Course" was cognitive-behavioural, modelled on previous work by Lewinsohn et al (1990) shown to be effective in the treatment of adolescent

depression. Relative to the wait-list control group, the prevention group had significantly fewer depressive symptoms at post-test, 6 and 12-month follow-up.

While the results of this study are encouraging, recruitment difficulties and the significant attrition rate are of concern. It is not surprising that adolescents are unwilling to participate in programs that identify them as different from their peers thus leading to fears of stigmatisation for some adolescents. Additionally adolescents do not warmly embrace programs conducted after school consequently attendance and participation can be problematic. An effective universal intervention could provide a means of addressing difficulties highlighted above.

In a recent selective study Clark, Hornbrook, Lynch et al. (2001) conducted a randomised trial designed to prevent depression in children (aged 13 to 18) of parents treated for depression in a health maintenance organization (HMO). This selective intervention recruited young people with subdiagnostic depressive symptoms and/or a past mood disorder who have a parent who had been prescribed antidepressant medication. The young people were randomly allocated to usual HMO care (n=49) or usual care plus a 15-session group cognitive therapy prevention program (n=45). Clarke et al. found a significant advantage for the intervention group (9.3% cumulative major depression incidence) relative to the control group (28%) at 15-month follow-up.

Rice, Herman and Petersen (1993) conducted one of the earliest universal trials. These authors ran a 16-session school-based universal intervention with early adolescent students. The study involved 145 students, 67 students recruited from 3 schools comprising the intervention group. The intervention focused on developing coping skills. Initial results indicate improvements in coping skills for the

intervention group, however there is no data available on the efficacy of the intervention in preventing depression in the target group.

In another universal trial Clarke, Hawkins, Murphy and Sheeber (1993) conducted and evaluated two school-based universal interventions for adolescent depressive symptoms. In the first study, all Grade 9 and 10 students from two high schools were randomly allocated to an intervention group (n=361, mean age, 15.40) or control group (n=261, mean age, 15.29). The intervention consisted of three sessions educating students regarding the symptoms, causes and treatments of depression. The health teachers who had been given a two-hour training session and a scripted curriculum manual taught classes as part of the health curriculum.

Student completed the CES-D (Radloff, 1977) at the beginning of the first and end of the third session and at the 12-week follow-up. The last occasion of testing included four additional questions to gauge students' knowledge regarding depression. Relative to the control group, the intervention group was associated with a short-term reduction in depressive symptoms for boys with high scores that did not hold up over time, but no significant change for girls.

The second study conducted by Clarke et al. (1993) consisted of similar aged subjects (n=190, mean age=15.24 intervention group, mean age=15.03 control group) and assessment procedures, but differed in the length and content of the intervention. Study 2 consisted of 5 fifty-minute sessions focusing on skill training. The first session provided basic facts about depression, while the remaining four sessions presented training in aspects of behavioural intervention for depression – mood monitoring, increasing pleasant events, relaxation and problem solving. Relative to the control group, there were no significant differences in the intervention group at either post-test or at 12-week follow-up.

Clarke et al. (1993) contend the lack of efficacy in the first study is consistent with the hypothesis that education alone does not constitute effective prevention. The results of Study 2 may have been related to the brevity of the interventions or the manner in which the intervention was conducted. Some aspects of intervention content such as increasing rates of "pleasant events" may be effective as treatment but lack of "pleasant events" may not be a risk factor for becoming depressed.

Shochet, Holland, Whitefield's (2001) universal trial attempted to address some of the difficulties evident in the studies by Clarke and his colleagues in the design and implementation of the Resourceful Adolescent Program (RAP), a school-based universal intervention to enhance resilience against depression. Participants in the RAP trial were 261 Year 9 students (mean age=13.49 years), predominantly white Anglo-Saxon and Christian in origin. The study compared three prevention conditions: a) Resourceful Adolescent Program for Adolescents (RAP-A); b) Resourceful Adolescent Program-Family (RAP-F); and c) Adolescent Watch (AW).

The RAP adolescent program consisted of 11 forty to fifty minute sessions designed for small group administration as part of the school curriculum, conducted by trained group leaders. RAP differs from Clarke and colleagues' intervention in that the emphasis is on resilience building skills rather than skills to provide symptom relief. The first seven sessions are based on Cognitive Behavioural Therapy (CBT) approaches. Sessions 8 to 10, address risk and protective factors such as developing adequate support networks and interpersonal competence. The program introduces students to the notion of resourcefulness as a means of developing resilience. RAP teaches a range of skills to encourage resourcefulness such as enhancing self-esteem; recognising and challenging negative thinking; affect

regulation; problem solving; developing support networks; and managing interpersonal difficulties.

The RAP-F condition consisted of the adolescent program plus a parent program. The parent program consisted of 3 three-hour evening sessions looking at parental self-esteem, understanding adolescent development and ways of promoting harmonious relationships within the family. Due to low numbers in this condition, the RAP-A and RAP-F conditions were combined.

The adolescents completed three measures of depression and hopelessness: the Child Depression Inventory (CDI, Kovacs, 1985), the Reynolds Adolescent Depression Scale (RADS, Reynolds, 1987) and the Beck Hopelessness Scale (BHS, Beck, Weissman, Lester & Trexler, 1974). The measures were administered prior to the intervention, post-intervention and at follow-up 10 months post-intervention. Shochet, Dadds, Holland, Whitefield and Oscarby (2001) found significant decreases in depressive symptoms for the prevention group relative to the control group at post-test and follow-up. The intervention conducted by Shochet et al. (2001) had an impact on the healthy group preventing students in this group from becoming "subclinical". Students in the "subclinical" range particularly benefited from this intervention.

The outcome of Shochet and colleagues' (2001) universal intervention is of particular significance. Not only did this study show a prevention effect but also managed a significantly higher retention rate than studies reviewed above, demonstrating potential benefits of a universal intervention. Harrington and Clark (1998) concur, noting that while universal preventive strategies have some difficulties, these strategies run through schools may have a number of advantages. Adolescents are notoriously reluctant to access health or mental health services

(NHMRC, 1997), therefore preventive efforts need to focus on areas frequented by adolescents. Schools provide a venue that is acceptable to adolescents and their parents, where young people are accessible and where the potential for intersectorial collaboration can provide a vehicle for destigmatising mental health issues. Offord et al. (1998) agree that universal interventions can avoid labelling or stigmatisation.

Schools have an impressive record in primary (universal) prevention. Durlak and Wells' (1997) meta-analysis of primary prevention in schools supports the efficacy of these programs and notes that the likelihood of negative effects from primary prevention in schools is negligible. These authors suggest that there is a need for programs to be replicated to determine external validity across different populations and settings.

The programs reviewed above confirm that cognitive behavioural and interpersonal therapy strategies are effective in reducing depressive symptoms in children and adolescents. Despite the considerable challenges of universal school-based programs, Shochet and colleagues have demonstrated that a universal intervention can effectively recruit and retain a large number of adolescents for whom the intervention was effective.

## 3.4. Rationale and Research Questions

The literature reviewed above confirms that adolescent depression occurs commonly, is often unrecognised and untreated (NHMRC, 1997), is associated with considerable impairment disrupting normal development (Cicchetti & Toth, 1998), and is recurrent and often persists into adulthood (Lewinsohn, Rohde et al., 1999; Birmaher et al., 2000). During the early to middle adolescent period (13–15 years) the incidence of depression increases considerably in young females (Nolen-

Hoeksema & Girgus, 1994). For the majority of adolescents, being seen as different from peers is unacceptable (Santrock, 2001) making it more unlikely that adolescents will accept assistance for emotional disturbances.

The RAP program (Shochet et al., 1997) was the intervention selected for the current research for the following reasons: a) the program has demonstrated efficacy up to 10 month follow-up; b) it is theoretically sound; and c) it is the only universal adolescent depression prevention intervention demonstrating continued efficacy over time.

The Shochet et al. (2001) study has made a valuable contribution, however there are a number of issues requiring further investigation. Although Shochet et al. (2001) has demonstrated the efficacy of the RAP intervention, there is no evidence that the program can work in a sustainable way in a "real world" context. As mentioned above, there is a need for an effectiveness trial indicating the usefulness of the program across different settings and populations.

In addition the issue of the sustainability of the intervention needs to be addressed. All group leaders in the Shochet et al. (2001) study were psychologists employed out of a research grant. Staffing all future groups with mental health trained professional facilitators would render the program unsustainable, as student numbers are high in universal interventions. Given the universal nature of the program, the potential of teachers to be effective group leaders needs to be explored.

Also, while Shochet et al. (2001) found no main effect for gender, these authors did not investigate effect size by gender. Consequently the implicit assumption is that the program is equally effective for girls and boys. Given the differential gender rates of depression and the lack of a definitive explanation to account for these differences, it cannot be assumed that a prevention program will be

equally effective for girls and boys. Thus there is a need to investigate whether there are differential gender responses to the intervention. It is important to determine whether the pathways to prevention of depression for boys and girls are the same as this will help provide direction for the development of prevention programs.

Further, Shochet et al. (2001) did not shed light on the mechanism of change attributed to program participation. As noted previously, the third axis of the dimensional approach (Hoagwood et al., 1995) focuses on the breadth of measurement outcomes in effectiveness studies, commonly including consumer perspectives. Westrin (1999) supports the need for broader outcome measures urging researchers to include measures that incorporate consumer evaluation as well as outcomes of importance to the researcher. While the outcome in terms of depressive symptoms is important, information about what the aspects of content and process the adolescents found helpful, and ways in which they have utilised the material, may provide further insight into mechanisms of change. This information may usefully inform future program development. Thus exploring the adolescents' perceptions of changes attributed to the intervention is an important contribution to improving prevention programs for adolescents.

The question arises as to how to elicit the information from the adolescents. There is growing support for the use of a combination of qualitative and quantitative methods of research in mental health (Graham, 2000; Buston, Parry-Jones, Livingston, Bogan & Wood, 1998; Smith, 1996). Quantitative approaches are considered essential to the provision of a systematic evidence base for practice. Qualitative approaches endeavour to provide "rich, detailed narrative reports of the perceptions, understandings or accounts of the participants in relation to the topic in question rather than a statistically significant numerical result" (Smith, 1996, p. 418).

A combination of these approaches allows for a richer exploration of the empirically derived findings.

Bryman (1988) provides methodological justification for combining these approaches. Numerous writers (Bryman, 1988; Brannan, 1992; Cresswell, 1994; Miles & Huberman, 1994) have posited models for combining the two approaches. The models vary considerably in complexity. Cresswell (1994) provides a simplified overview of combining approaches outlining three models of combined design. The first is a two-phase design, where the quantitative and qualitative approaches are kept quite separate. The second involves use of a dominant approach with a small component from the alternative approach and thirdly, a mixed-methodology design in which the two approaches are mixed at all stages of the research.

Punch (1998) states that the model adopted should be driven by the research question. He argues that the method follows, provided that the research question and the method are matched to each other. Further, he concludes that the way in which the approaches are combined should be determined by a consideration of both the rationale for combining the approaches and the circumstances (including context and practical aspects) of the research (Punch, 1998). Given that there is evidence to support the use of combined quantitative and qualitative approaches, this approach will be used to investigate the students' perceptions of the program, thus providing additional insights into the impact of the program.

In summary, the RAP efficacy study (Shochet et al., 2001) requires further investigation to ascertain external validity over different settings and populations. The major focus of this study is to extend the work of Shochet et al. (2001), using a much larger sample and focusing on several important issues. Firstly, the current research will further investigate whether there is a differential gender response to the

program. Secondly, further study is required to determine whether teachers who are given training in the program are as effective as mental health trained professionals.

Finally, students' recall of the program content and relevance to daily life will be investigated. This will be achieved by combining a self-report evaluation and a semi-structured interview. The combination of qualitative and quantitative methods will provide valuable information about the students' perception of the acceptability, format and perceived benefits of the program.

The following research questions were examined:

1. Will there be any intervention effect in favour of the adolescents who receive the RAP program when compared to a control group in preventing depressive symptoms?
2. Will the intervention effect be different for girls and for boys?
3. Are teachers and mental health professionals equally effective as group leaders?
4. How satisfied are adolescent consumers in terms of quantitative and qualitative evaluation of the program?

# CHAPTER 4

# METHOD

## 4.1. Study Design

The current study is an effectiveness trial in which a quasi-experimental design was used to evaluate a universal school-based intervention utilizing local resources. Effectiveness trials have the advantage of providing a clearer picture of the likely success of an intervention in a "real world" context, and have greater generalizabilty than efficacy trials. However, methodological difficulties are inherent in real world research and the researcher is required to optimise methodology within these constraints.

Randomised controlled designs are considered the optimal means for evaluating the effectiveness of preventive interventions (Patton & Burns, 1998). Conversely, in effectiveness population prevention research, randomisation is not always possible as in this particular study. Similarly, providing the control group with an alternative intervention can strength study design however "real world" contraints rendered this option beyond the scope of this particular study.

Year Nine students attending selected Systemic Catholic High schools in Western Sydney were invited to participate in the study. Three schools (one all-girls, one all-boys and one mixed-gender school) were allocated as RAP intervention schools. Comparison data was obtained by matching the all-girls and the mixed-gender school with an equivalent school in the same geographical location, with similar socio-economic status and school size in the same cohort.

All participating Year 9 students attending the intervention and comparison schools were required to complete three self-report measures of depression and hopelessness on three occasions: one to two weeks prior to the commencement of the intervention; within two weeks of the completion of the intervention; and six months following the completion of the intervention. To control for seasonal effects, an attempt was made to ensure that the timing of assessments was similar for each matched pair. In the case of the all-boys school it was not possible to accurately synchronize the assessments for the comparative condition, however the assessments were still within a seven-week timeframe of one another in consecutive years.

## 4.2. Participants

Parental consent for involvement in the study was obtained for 481 (97.96%) of the 491 students approached in the control group and for 522 (99.42%) of 525 students in the intervention group. The average age of the students in the intervention group was 13.98 (SD= 47) and 13.99 (SD= 49) for the control group. A total of 1003 subjects were recruited to participate in this study. Table 4.1 provides detailed information (gender composition, country of birth and language other than English) about the participants. The total recruitment rate of this study (98.69%) was very high, supporting one of the key rationales for conducting a universal trial.

Given the large number of students participating in this study, a high degree of commitment and follow-up was required on the part of the researcher and the schools to ensure permission forms were returned and students were available to complete the self-report measures. Vigorous follow-up resulted in a high rate of participation in the study. The retention rate in this study is much higher than in

similar studies such as Shochet et al., (1999), Clarke et al., (1995), Jaycox et al., (1996).

Table 4. 1

Numbers and Percentages of the RAP and Control Groups Comprised of Male and Female Students, Students Born in Australia and Students Speaking a Language Other than English.

| Variable | Intervention (RAP) | | Control | |
|---|---|---|---|---|
| | n | (%) | n | (%) |
| **Gender Composition** | | | | |
| All Girls | 169 | (32.3) | 134 | (27.9) |
| All Boys | 181 | (34.6) | 174 | (36.2) |
| Co-Ed | 172 | (33.1) | 173 | (36.0) |
| **Total** | 522 | (100) | 481 | (100) |
| **Country of Birth** | | | | |
| Australia | 383 | (73.4) | 346 | (71.9) |
| Outside Australia | 99 | (19.0) | 113 | (24.8) |
| Missing | 40 | (7.6) | 22 | (4.6) |
| **Language other than English** | | | | |
| Yes | 188 | (36.0) | 241 | (50.1) |
| No | 296 | (56.7) | 225 | (46.8) |
| Missing | 38 | (7.3) | 15 | (3.1) |

## 4.3. Outcome Measures

Quantitative outcome measures were used to gather information about changes in depressive symptoms and the related construct, hopelessness, at three intervals. A combination of quantitative and qualitative outcome measures was used to provide detailed information about the students' perceptions of the usefulness and acceptability of the intervention. The following section describes the measures used in the current study and provides a rationale for the use of quantitative and qualitative outcome measures to analyse the student evaluation of the program.

All participating students provided demographic information and completed three self-report measures. Two depression measures: the Reynolds Adolescent Depression Scale (RADS, Reynolds, 1987) and the Child Depression Inventory (CDI, Kovacs, 1985) and a measure of hopelessness, the Beck Hopelessness Scale (BHS, Beck, Weissman, Lester and Trexler, 1974) were administered to provide convergent data on the adolescents' self-report of depressive symptomatology.

Following participation, students in the intervention group completed a process questionnaire to evaluate their perceptions of the program. Approximately one fifth of the students from the intervention schools were randomly selected by the Year 9 Coordinator to participate in a semi-structured interview to elicit the students' perceptions of the acceptability and usefulness of the RAP groups.

### 4.3.1. Depression and Hopelessness Measures

Assessment of depressive disorders or severity of depressive symptoms has received some attention, as differing methods can result in varying outcomes. Essau and Dobson (1999) note that three approaches are commonly used to establish

'depressed cases', namely: clinician assessment (clinical); assessment using checklists or questionnaires (dimensional); and use of standardised diagnostic interviews (categorical). The selection of measurement approach is often dictated by the investigator's definition of depression as indicating symptoms, syndrome or disorder (Essau et al., 1997) as in the current study where self-report questionnaires were used to elicit the severity of depressive symptoms and hopelessness.

Essau, Hakim-Larson, Crocker and Petersen (1999) state that recent interest in instruments for the assessment of depressive symptoms, depressive syndrome and depressive disorders has led to an increase in the number and quality of self-report questionnaires and structured diagnostic interviews suitable for use with children and adolescents.

Investigators adopting a dimensional approach commonly select self-report or in some cases, parent or teacher-report measures. Measures such as Reynolds Adolescent Depression Scale (RADS; Reynolds, 1987), Child Depression Inventory, (CDI; Kovacs, 1985) are often used to elicit depressive symptoms in children and adolescents. Reynolds (1994) notes that the use of depression measures with young people is relatively recent and while potentially constructive, this author highlights the need for measures to have sound psychometric properties, to accurately distinguish depressed from nondepressed young people and to usefully contribute to assessing treatment outcome.

The advent of psychometrically sound measures specifically designed to assess depressive symptoms in children and adolescents represents considerable advancement in the early identification and the measurement of treatment outcome of depressed young people. Researchers should however, be mindful of concerns such as the variation in cut-off criteria used across different studies to identify

depressed individuals and the use of differing constructs of depression limiting the effectiveness of these measures. Additional concerns centre on the developmental and age appropriateness of instruments. Further, while self-report measures can give an indication of symptom levels, these measures give no information regarding chronicity. Self-report measures therefore, can only be considered a useful and cost-effective device for screening large populations.

While the principles discussed above are important, in reality, the form of assessment selected by the researcher/clinician will depend largely on the question under investigation, resource and time factors. Thus, in the current study, while more comprehensive assessment using multiple informants was considered, psychometrically sound self-report measures were selected as an effective means of assessing depressive symptoms in a large community sample, due to cost, time and resourcing restrictions.

Although self-report measures have limitations, they have an important role to play in clinical research. Self-report measures are economical, easy to administer and can be interpreted with relative ease (Kovacs, 1985). Shain, Naylor and Alessi (1990) found high correlations between clinician report and adolescent self-report on two measures used in this study: the Child Depression Inventory and the Reynolds Adolescent Depression Scale.

**Reynolds Adolescent Depression Scale (RADS)**

The RADS (Reynolds, 1986, 1987) is a self-report measure designed to measure the severity of depressive symptoms in adolescents aged 12 –18. This scale consists of 30 items using a four-point response format with responses ranging from "almost never", to "most of the time", requiring a reading age of approximately 8 years. The item relating to self-harm was omitted following an agreement with the schools, leaving a total possible score of 116. A cut-off score of 77 has been

validated as determining clinical levels of depressive symptomatology (Reynolds, 1987). With the omission of one question, the cut-off score for clinical levels of symptoms of depression for this study is 73.

The psychometric properties of the RADS are excellent (Boyd, Gullone, Kostanski, Ollendick & Shek, 2000). Studies of the RADS have consistently reported high reliability, ranging from 0.91 to 0.96 (Reynolds & Miller, 1985; Dalley, Bolocofsky, Alcorn, & Baker, 1992) with both normal and depressed adolescents. Reynolds and Mazza's (1998) recent study of 89 adolescents from an inner-city school reaffirms the psychometric properties of this instrument. These authors report an internal consistency reliability of .91 on initial assessment and .93 for the retest.

Studies of test-re-test reliability of the RADS varying in the retest interval from three to twelve weeks have reported test-retest reliability ratings from 0.79 to 0.86, somewhat better than the CDI (Reynolds, 1987; Baron & De Champlain, 1990 cited in Reynolds and Mazza, 1998). Reynolds and Mazza (1998) reported a strong test-retest reliability of .87.

The RADS has demonstrated strong correlations with a number of other depression measures including the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock & Erbaugh, 1961), Centre for Epidemiological Studies – Depression Scale, (CES-D; Radloff, 1977), and the Zung Self-Rating Depression Scale (Zung, 1965) ($r$= .71 to .89) (Reynolds, 1987). Kahne, Kehle and Jensen (1987) reported a correlation of .75 between the RADS and the CDI. Reynolds and Mazza (1998) found a correlation between the RADS and the Hamilton Depression Rating Scale on retesting was .76, suggesting a strong level of criterion-related validity.

The strong psychometric properties of this instrument and the fact that it has been widely used with normal school-based populations recommend its use for this study.

**Children's Depression Inventory (CDI)**

The CDI is one of the most widely used self-report instruments for assessing depressive symptoms in childhood and adolescence. This 27-item measure requires a very basic literacy level. In this study, the item relating to suicidal ideation was omitted following an agreement with the schools, leaving 26 items with a total possible score of 54. Each item consists of three choices scored from 0 – 2 in the direction of increasing severity. The CDI consists of five factors or subscales.

Sitarenios and Kovacs (1999) assert that the five factors of the CDI have good face validity. These authors report relatively high internal consistency for the total CDI, with alphas ranging from .71 to .89 and satisfactory internal consistency for the five factors with alphas ranging from .59 to .68. Other studies have also confirmed the psychometric properties of the CDI reporting internal consistency reliability coefficients in the low to upper 0.80 (Cole & Carpentieri, 1990; Smucker, Craighead and Green, 1986) and test-retest reliability coefficients ranging from 0.38 to 0.87 (Blumberg & Izard, 1986; Finch, Saylor, Edwards & McIntosh, 1987; Kovacs, 1980/1981; Nelson & Politano, 1990).

Reynolds (1994) attributes the variability in test-retest reliability to time interval between tests and study sample characteristics. Sitarenios and Kovacs (1999) point out that the .38 reported in one study was an outlier and in general test-retest correlations found in studies using short intervals was .56 to .87 with a median test-retest correlation of.75.

There is varying evidence on the capacity of the CDI to distinguish between depressed and nondepressed children and adolescents. For example, while Helsel and

Maton (1984) and Kovacs (1985) found that the CDI could differentiate depressed from nondepressed children and adolescents, while Saylor, Spirito and Bennett (1984) did not report supporting evidence. Carey, Faulstich, Gresham, Ruggiero and Enyart (1987) attempted to control for the methodical limitations of previous studies and found support for the CDI as a screening device for identifying young people in the school or clinic setting with depressive symptomatology rather than as a diagnostic measure.

Similarly, Reynolds (1994) states that the CDI was not designed as a diagnostic tool, rather as an indicator of severity. He asserts that the mixed results relate to variations in cut-off scores and subject populations. Reynolds agrees with Kovacs (1979) that a cut-off of 19 or above represents a clinically relevant level of depressive symptoms. Sitarenios and Kovacs (1999) suggest varying the cut-off depending on the relative importance of sensitivity and specificity. Raising the cut-off generally decreases sensitivity and increases the specificity while lowering the cut-off has the opposite effect.

There are numerous studies supporting use of the CDI as an effective screening measure (Craighead, Curry & Ilardi, 1995; Stark, Kaslow & Laurent, 1993; Spirito, Overholser & Hart, 1991). The CDI was used as a screening rather than as a diagnostic measure in this study.

**Beck Hopelessness Scale (BHS)**

The Beck Hopelessness Scale is a 20-item measure designed to highlight negative attitudes and expectancies answered by indicating true or false in response to the given statements. The BHS has a moderately high correlation with the Beck Depression Inventory (r=.68; Minkoff, Bergman, Beck, & Beck, 1973). Concurrent validity has been assessed comparing BHS scores with general clinical ratings of hopelessness in a sample of general practice patients, correlations of .74, and a

sample of patients who were hospitalised following a suicide attempt, correlations of .62 (Beck, Rial & Rickels, 1974).

Beck, Brown, Berchick, Stewart and Steer (1990) in a large study of psychiatric outpatients (n=1958) found that a score of 9 or higher identified 94% of those who eventually suicided. It is noteworthy that while predictive validity is high, specificity is low, as there were a number of false positives.

Katz, Katz and Shaw (1999) observe that the most convincing evidence for construct validity of the BHS relates to its strong association with suicidal intent and actual completed suicide. These authors cite Beck, Kovacs and Weissman's (1975) study concluding that when hopelessness is statistically excluded, the relationship between depression and suicide is weakened.

Katz, Katz and Shaw (1999) conclude that overall, the BHS is a reliable measure of hopelessness reflecting a negative expectation for positive future outcomes. Beck et al. (1974) examined the reliability of the BHS in a sample of 294 patients who were hospitalised following a suicide attempt. The coefficient alpha for internal consistency was .93; acceptable intercorrelations for individual scale items and the total scale ranging from .39 to .76 were reported. A further study of internal consistency by Hill, Gallagher, Thompson and Ishida (1988) reported a coefficient alpha of .84 and a Spearman-Brown split-half reliability of .82.

### 4.3.2. Student Evaluation: Qualitative and Quantitative Outcome Measures

One of the aims of the current study was to probe more intensively to gain a richer insight into the adolescents' perspectives on the acceptance and perceived value of the intervention. As has been noted, there is support for the use of a combination of qualitative and quantitative methods of research in mental health

(Graham, 2000; Buston, Parry-Jones, Livingston, Bogan & Wood, 1998; Smith, 1996). This combined approach was used to more fully explore the students' perceptions of the impact of the program.

A quantitative approach to evaluation is based on a positivist paradigm underpinned by the belief that reality is governed by natural laws and can be measured (Bailey, 1997). Quantitative researchers use deductive process, testing theory by experiment and observation. This approach relies on the use of instruments producing results that can be expressed numerically and analysed statistically to measure relationships between variables and change. Methods such as descriptive, correlation, quasi-experimental and experimental are examples of quantitative research. A particular strength of this system is the objective, scientific approach to hypothesis testing. However, this approach has limitations in explicating the meaning of personal and social experiences (Smith, 1996).

A qualitative approach to evaluation is underpinned by naturalistic inquiry and uses inductive methods moving from observable data to theory (Graham, 2000). According to Buston et al. (1998) "the key characteristic of qualitative research is that it facilitates the researcher's understanding of the meaning assigned to the phenomena by those being studied" (p. 197). Qualitative approaches use strategies such as observation, interviews, focus groups, case studies and thematic analysis. Qualitative strategies can be used to great effect to enhance an understanding of results obtained using predominantly quantitative analysis. Thematic analysis is a particularly useful strategy for analysing interview transcripts (van Manen, 1997).

Van Manen (1997) suggests that phenomenological reflection is a strategy that enables the researcher to examine the multi-dimensional and multi-layered meaning of a particular experience. Thematic analysis according to van Manen

(1997) provides a means of interpreting the meaning of text of a lived experience more accurately. Theme according to van Manen (1997) is a tool for getting to the meaning of the lived experience.

Van Manen describes three methods of isolating thematic statements: firstly, the wholistic or sententious approach in which attention is given to the text as a whole. Secondly, the selective or highlighting approach in which the text is examined to determine which statements or phrases seem particularly relevant to the meaning of the experience being described. Finally, the detailed or line-by-line approach in which small sections are examined to determine what they reveal about the experience being described.

In the current study, a quantitative measure was devised to evaluate outcome. This twenty-item student evaluation questionnaire assessed the students' views about the content, process and perceived benefits of the program. Students in the intervention group completed the evaluation at the conclusion of the last session of the program (see Appendix 3). Students were asked to rate their answers on a four-point scale (see 4.4.1). The questions explored for the effects of the program on student confidence, stress, ability to get on with friends and family; students' view of the group leader and the extent to which others had noticed changes in them.

The addition of a qualitative measure provided an opportunity to look behind the numbers at the underlying meanings to enhance understanding of the adolescents' attitudes to the program. Approximately one fifth of the students in the RAP intervention participated in a semi-structured interview consisting of five questions (see 4.4.1 and Appendix 4). An independent interviewer conducted a total of 109 interviews. The students' responses were examined using thematic analysis.

As the interview transcripts for each of the five questions were brief, the text was examined using the wholistic or sententious approach.

## 4.4. Resourceful Adolescent Program (RAP)

The RAP adolescent program was designed by Shochet, Holland and Whitefield (1997) as a universal resilience building program to promote positive coping abilities and the maintenance of self in the face of stressful circumstances. It was designed for use with early to middle adolescents in small groups of around ten to fifteen students over 10 to 11 weeks. The major theoretical underpinnings of the program are Cognitive-Behavioural Therapy (CBT) and Interpersonal Therapy (IPT).

Numerous studies have demonstrated the efficacy of CBT in the treatment of depression in adults, children and adolescents (Lewinsonhn, Rohde & Seeley, 1998; Clarke, Hawkins, Murphy, Sheeber, Lewinsohn & Seeley, 1995; Birmaher, Brent, Kolko, Baugher, Bridge, et al., 2000). NHMRC (1997) recommends Cognitive-Behavioural Therapy as the treatment of choice for depressed adolescents. The American Academy of Child and Adolescent Psychiatry (2001) recommends CBT and IPT as treatment options for children and adolescents with suicidal behaviour.

Interpersonal Therapy (IPT) (Klerman, Weissman, Rounsaville & Chevron, 1984) was initially designed to assist depressed adults manage symptoms of depression and manage interpersonal difficulties. Mufson, Moreau and Weissman (1994) modified IPT for use with adolescents. In a recently reported 12-week trial of IPT involving twenty-five adolescents with moderate to severe major depression, the majority of participants improved significantly with 80% meeting criteria for remission on the Beck Depression Inventory and 84% on the Hamilton Rating Scale

for Depression. The study also reported that IPT was effective for several months following the intervention and can be effectively implemented by well-supervised clinicians with no prior training (Darcy & Kusumakar, 2001).

RAP is a skills-based program designed to enhance resilience rather than being 'symptom' or 'deficit' oriented (Shochet et al., 1999). The program uses the metaphor taken from the story of the Three Little Pigs in which the house built of brick was able to withstand assault. Similarly, building a series of personal resource bricks can better equip one to withstand the stresses and storms of life, particularly during the period transition from childhood to adulthood, namely adolescence. Sessions involve presenting opportunities to develop and practise skills required to develop a range of personal resource bricks, such as keeping calm bricks, problem solving bricks and personal strength bricks. See Table 4.2 for an overview of session content.

Table 4. 2
Content Overview

| Session | Content |
|---|---|
| Session 1 | Establishing rapport |
| Session 2 | Affirmation of existing strengths |
| Session 3 &4 | Promoting self-management and self-calming skills in the face of stress |
| Session 5 & 6 | Cognitive restructuring |
| Session 7 | Problem solving |
| Session 8 | Building and accessing psychological support networks |
| Session 9 & 10 | Interpersonal skills to promote family harmony and avoid conflict escalation |
| Session 11 | Summary and termination |

Sessions 1 to 7 are based on Cognitive-Behavioural principles, while Sessions 8 to 10 address interpersonal risk and protective factors. Sessions 1 to 7 present strategies relevant to enhancing self-esteem, recognising and managing physiological responses to stress, identifying and challenging negative self-talk and problem solving. There is a sound evidence base for the use of CBT strategies as an effective means of managing psychological distress (Belsher, Wilkes & Rush, 1996; De Anda, 1998; Dadds, Spence, Holland, Barrett & Laurens, 1997; Clarke, Hawkins, Murphy, Sheeber, Lewinsohn & Seeley, 1995; Hains, 1992).

Session 8, which emphasises the value of support networks, draws from the resilience literature that posits that the capacity to draw on a network of support and

resources may possibly constitute one of the variables distinguishing resilient and non-resilient children (Mufson, Moreau, Weissman & Klerman, 1993).

Sessions 9 and 10 target harmonious interpersonal relationships, especially within the family. The impact of conflictual interpersonal relationships and chronic family disharmony on mental health is well documented (Lewinsohn et al., 1994; Garnefski, 2000). Adolescence provides particular challenges in that negotiating developmental tasks requires renegotiating family relations (Steiner, 1996; Rey, 1995) often resulting in conflict between adolescents and parents. Sessions 9 and 10 specifically target issues that often result in family conflict and provides opportunities for discussion and practice of strategies designed to help avoid conflict escalation and promote harmonious family relationships.

As adolescents learn in different ways, a variety of strategies were used to maximise skill acquisition. Role-plays and discussions allowed for exploration of ideas and behavioural rehearsal. Games and activities provided a means of engagement and a creative means of reinforcing points made verbally or in writing. The video vignettes allowed the students to explore a variety of situations commonly experienced safely and objectively.

Each student was given a workbook that was used during each session. The workbooks contained basic information relevant to the session and provided space for simple pen and paper tasks. They were distributed at the beginning of sessions and collected at the end of sessions to ensure all students had a workbook for each session. The workbooks were given to the students at the end of the program to reinforce the program content and to provide a reference to refer to following the completion of the program.

## 4.5. Procedure

Following ethics approval (see Appendix 1), Systemic Catholic High Schools in Western Sydney were invited to participate in the study. School counsellors in Systemic Catholic High Schools within a 15 kilometre radius of the researcher were informed via the school counsellor's network that a study was to be conducted and were invited to discuss potential involvement with the School Principal. Schools were allocated to the RAP intervention condition and matched with comparison control groups (as per 4.1).

All consenting Year 9 students (see Appendix 2) attended the pre-intervention, (pre-test, T1) one to two weeks prior to the commencement of the intervention; post intervention (post-test, T2) within two weeks of the completion of the intervention; and follow-up intervention (follow-up, T3) six months following the completion of the intervention. The self-report measures were administered in classrooms during a school period of approximately 50 minutes. A psychologist completing the Clinical Masters program supervised the administration of all questionnaires. The testing conditions in the intervention and comparative schools were identical prior to the commencement of the intervention.

Within two weeks of the pre-test, students in the RAP schools commenced the RAP intervention during school time as part of the school curriculum. The schools participating in the study requested that the program be delivered over 5 double periods, that is, two sessions per group meeting, as they were unable to guarantee ten separate meetings at weekly intervals within one school term. Those in the comparative condition continued with the normal school curriculum.

In accordance with the process outlined on the permission form, students in both the intervention and control groups reporting clinical levels of depressive

symptoms on self-report measures, (that is, above 73 on the RADS) at pre and post-test were interviewed by the school counsellor. Where indicated, some of the students were offered a referral for further mental health assistance. Students of concern at post-test were included in the post-test analysis, as interviews were not conducted until after post-testing. These students were excluded from the follow-up analysis.

All students in the intervention condition were required to complete a self-report program evaluation questionnaire following the final session of the program. Approximately one fifth of the students (n=109) in the intervention condition were asked to participate in a semi-structured interview three months after the completion of the intervention as part of the student evaluation.

### 4.5.1. Quantitative and Qualitative Student Evaluation Procedure

At the conclusion of the final session, students in the intervention group were asked to complete a 20-item self-report evaluation questionnaire (see Appendix 3). Approximately 74% of students returned completed evaluation forms (n= 81% girls, 68% boys). Students were asked to indicate a rating from 1 (most positive) to 4 (least positive) for each question.

The Year 9 Coordinator from each of the three intervention schools was asked to randomly select a group of approximately one fifth of the students who participated in the RAP intervention to participate in a structured interview 3 months post intervention. A total of 109 interviews were conducted, with 60 males and 49 females. The interview comprised of the following five questions:

1) Can you tell me what you remember the RAP program being about?
2) What did you like most about the program?

3) Can you give me specific examples of when you have used skills from the RAP program?

4) Have other people noticed any changes in you?

5) What didn't you like, what would you change?

All interviews were taped and transcribed (see Appendix 4). Following the transcription, the interviews were coded according to themes. A second person reviewed the transcripts and formulated themes. Themes selected by both reviewers were very similar for Questions 1, 2, 3 and 5 and were identical for Question 4. Minor semantic variations were discussed and both reviewers agreed upon themes for each question. Both reviewers calculated frequencies independently. Concordance on frequency rates was 100% for Question 4 and over 90% for all other questions.

Themes were analysed according to gender. It is common practice to list themes and provide transcript excerpts as examples of individual themes. In the current research, the majority of responses, although brief, referred to more than one theme. Thus, a selection of responses with an indication of the themes evident in each excerpt is provided in Chapter 6.

### 4.5.2. Group Administration of Intervention

The intervention is designed for delivery to adolescents in small groups consisting of 10 to 15 students. This format suits adolescents for a number of reasons. The smaller group format within the school context has the advantage of being a novel experience and provides a more informal learning environment. The students have an opportunity to develop a different relationship with the group leader from the relationship to the teacher in a classroom context. The smaller group

environment encourages greater participation, provides adolescents with an opportunity to learn from each other and allows the leader to monitor the progress of each of the members of the group.

Some of the traditional means of promoting generalisation are less effective during the developmental period of adolescence when compliance with homework, for example, can become problematic. Students were encouraged to practise skills between sessions and discuss their experiences at the next session. Student workbooks were distributed at the beginning of each session and collected at the end of the session to ensure that students had their workbooks for each session. Students were given their completed workbooks at the final session. This provided a record of activities and a reminder of the skills covered during the program.

RAP is designed as a school-based program for adolescents aged 13–15 years, to be conducted in a group format, ideally 10–15 students per group facilitated by a group leader. The program consists of 11 sessions, 40–50 minutes in duration, with potential for flexible delivery as single sessions, or two consecutive sessions that fit into a double period in the school timetable. The schools participating in this study requested that the program be delivered over 5 double periods, that is, two sessions per group meeting. The school's rationale for requesting double periods was that they were willing to incorporate RAP into the school curriculum for one school term, that is ten weeks. The schools argued that with the numerous planned and unexpected disruptions to school life they could not guarantee ten separate meeting times in addition to pre- and post-testing within one school term, however they could guarantee five meeting times and two occasions for testing within the term.

### 4.5.3. Group Leaders/Facilitators

Students were allocated to a group and assigned a group leader by the Year 9 coordinator. There was no bias in allocating students to groups. A total of 49 group leaders were recruited to facilitate the intervention groups. The group leaders were either teachers or mental health professionals of varying disciplines (psychologists, social workers, nurses) from local mental health facilities who were experienced in working with young people or teachers who volunteered to participate in the program.

Schools had requested that at least half the leaders come from within the school with the remaining leaders drawn from local mental health services. Mental health services local to each school were informed that the program was to be conducted in a local school. Staff members prepared to undergo training and commit to 5 weekly sessions were invited to volunteer as group leaders. The school group leaders were teachers who volunteered, having been recommended by the form coordinator and the counsellor. Forty-three percent (n=21) of the leaders were teachers and the remaining fifty-seven percent (n=28) were mental health professionals working with adolescents, including psychologists, social workers and nurses. Leaders were randomly allocated to groups.

All leaders were required to undergo 4–6 hours of training prior to commencing the program with the students. There were a large number of leaders to be trained and not all leaders were able to attend the one-day training sessions, one of the many complications of real world research. Arrangements were made to train leaders unable to attend by offering alternative training sessions from 2–6pm. Although some sessions were shorter than the one-day sessions, numbers were smaller and trainees were given more individual attention. The same accredited

trainer conducted training of all leaders who facilitated groups. Group leaders were expected to attend supervision/debriefing sessions after each session and a final evaluation at the conclusion of the program. Supervision involved discussion of group process and content.

### 4.5.4. Program Fidelity

Program fidelity was assured by the following means: i) use of a structured manual; ii) training of all leaders by the same trainer; and iii) supervision after each session to determine whether there was adherence to the session content and process. Feedback was given verbally to the program coordinator and difficulties addressed as they arose.

Initially leaders were asked to complete integrity checklists, but it became apparent after the second session that leaders were not completing this task for logistical reasons. Leaders expressed a desire to use all the time during group sessions working on the RAP program rather than completing checklists. Both teachers and mental health workers were reluctant to complete the forms after the sessions. The researcher determined that pursuing this matter was unlikely to increase compliance and may have had a negative impact on leaders' attitudes to the program, as although all leaders wanted to remain involved, several expressed concerns about workload and time constraints.

Emphasis was placed on ensuring all leaders attended the weekly half-hour supervision sessions. All leaders were prepared to comment on material covered during each session verbally at supervision, were willing to raise group management and process issues and were given the opportunity to raise issues of concern. Leaders who were unable to attend a session were contacted to review the content covered

and process or management issues. Leaders were encouraged to contact the researcher between supervision sessions to express any concerns or to clarify content or process questions or issues. Thus the researcher was able to ensure that leaders adequately covered all program content and group management issues were addressed as they arose.

# CHAPTER 5

## RESULTS

### 5.1. Attendance

The RAP program was conducted in the three intervention schools over three school terms (see Chapter 4 for details). As noted previously, following discussions with the schools it was agreed that the RAP program was to be completed in five sessions held weekly. Group leaders, either teachers or mental health professionals (including school counsellors) were responsible for intervening with 44% (n=228) and 56% (n=290) of RAP students respectively, and were asked to collect attendance records weekly. Consistent with the difficulties of effectiveness trials, seven group leaders failed to pass attendance records to the researcher, however this information was obtained from the school records for 79 out of the 83 students with missing attendance records. Thus attendance records for all sessions were obtained for 518 of 522 students (99.2%).

Seventy-one percent of the students in the RAP group attended the entire program (370 out of 518), 94% of students completed 80% or more of the program while a further 21 students (4%) completed 60% of the program. The 6 students (1%) who completed less than 60% of the program have been excluded from the analyses. These exclusions are reflected in Table 5.1. Results were unaffected by the inclusion or exclusion of the very small numbers of these students, thus the need to investigate results once with all students who completed 60% or more of the program and with the 'intention-to-treat' group is not considered to be relevant for this study.

## 5.2. Attrition and Invalid Data

Measures were collected for both the intervention and control groups on three separate occasions. The overall attrition rate for data collected at Time 1 was 7%, as some students either were absent from school on the day pre-testing was conducted, did not complete the whole self-report battery, or in the case of a small group of students, invalidated particular measures by assigning the same value to all questions in a given questionnaire.

Table 5. 1
Participants in RAP and Control Groups at Various Program Stages

| | RAP<br>n | Control<br>n | Combined<br>n |
|---|---|---|---|
| Total sample invited | 528 | 491 | 1019 |
| Total sample consented | 522 | 481 | 1003 |
| Attendance records missing | 4 | NA | 4 |
| Students attended >60% of program | 6 | NA | 6 |
| Students absent at pre-test | 7 | 4 | 11 |
| Total useable assessments at pre-test | 505 | 477 | 982 |
| Absent, relocated at post-test | 37 | 31 | 68 |
| Total useable assessments at post-test | 475 | 450 | 925 |
| Excluded at follow-up due to high levels of depressive symptoms at pre and post- testing and referred to mental health. | 15 | 16 | 31 |
| Absent, relocated at Follow-up | 51 | 42 | 93 |
| Total useable follow-up sample | 446 | 423 | 869 |

Attrition at post-test and 6-month follow-up varied between 9% and 11% for individual measures. Factors including absence, failure to complete the battery of questionnaires and invalidation of particular measures pertinent at pre-test were also relevant on subsequent occasions of testing. Additionally, students were harder to access at post-test and follow-up due to unexpected school excursions, and other school activities. The attrition rates for both the intervention and control groups on the RADS were similar across the three occasions of testing. Attrition rates on the CDI were slightly higher than for the RADS at pre-test but were similar on successive occasions of testing. There were no attendance requirements for the control group. Data for all subsequent pre-test, post-test comparisons refer to n=925 and n= 869 for all subsequent pre-test, follow-up comparisons.

In accordance with the method outlined in Chapter 4, thirty-one students, 15 from the RAP group and 16 from the control group, were excluded from the analyses at follow-up as these students were referred for further mental health assistance due to concerning levels of depressive symptomatology endorsed on the self-report measures.

Given that the cohort for each school involved the whole class and considering the difficulty of having all students in Year 9 present at school and in the appointed place at the nominated time for testing, the attrition, missing and invalid data rate is very low.

## 5.3. Statistical Procedures

This study aimed to investigate three major research questions: 1) is the Resourceful Adolescent Program (RAP) successful in reducing symptoms of depression in a group of Year 9 high school students relative to a control group; 2) is

the program equally effective for boys and girls; 3) are teacher facilitators and mental health professionals equally effective as group facilitators.

Univariate tests of significance (ANOVA) were performed on the pre-test scores obtained on the RADS, the CDI and the BHS for the control and intervention groups (N=982) to determine the equivalence of the groups at pre-test (See Table 5.2).

Statistically significant differences were found (see Table 5.2) between the groups for each of the measures of depression and hopelessness. The intervention group had slight but significantly higher scores on each of the three depression measures. Before proceeding with the analyses, the following decisions were considered: i) whether to combine the dependent variables in a multivariate analysis or to analyse each separately; and ii) the selection of ANCOVA or repeated measures to analyse the data.

The three dependent variables have been combined as they relate to one another statistically (see Table 5.3) and theoretically, in that all three, measure depressive symptoms or related constructs such as hopelessness. The variables were combined to guard against Type 1 error.

Analysis of covariance (ANCOVA) was selected in preference to Repeated Measures as a means of controlling for pre-test differences, given that pre-test differences between the intervention and control group scores were evident for all three measures. According to Allison, Gorman and Primavera (1993), ANCOVA provides a more accurate representation of treatment effects and is commonly more powerful.

To answer the first two research questions, a series of multivariate and follow-up univariate analyses were conducted. In the first instance, separate

multivariate analyses of covariance (MANCOVA) were conducted for the sample as a whole on the combined depression and hopelessness measures (RADS, CDI, BHS) data at post-test and follow-up data. On each of these analyses, the combined pre-test scores from the depression and hopelessness measures were used as covariates and the independent variables were Group (*RAP vs control*) and Gender (*male vs female*). Univariate follow-up was used where appropriate and descriptive statistics are presented to assist with interpretation.

Table 5. 2
Means and Standard Deviations for Pre-test RADS, CDI, BHS for Intervention and Control Groups and ANOVA Results Comparing Pre-intervention Means for Intervention versus Control Groups.

| Measure | Intervention Mean (SD) | Control Mean (SD) | ANOVA |
|---|---|---|---|
| RADS | 55.65 (13.39) | 53.74 (12.83) | F(1, 982)=5.22, p=.023 |
| | *n=505* | *n=477* | |
| CDI | 9.16 (7.75) | 7.86 (7.20) | F(1, 943)=7.137, p=.008 |
| | *n=467* | *n=476* | |
| BHS | 4.56 (4.34) | 3.68 (3.72) | F (1, 967)=11.49, p=.001 |
| | *n=492* | *n=475* | |

Note. RADS= Reynolds Adolescent Depression Scale; CDI= Children's Depression Inventory, BHS= Beck Hopelessness Scale

One of the primary purposes of this study was to further examine the effect of gender on program effectiveness. At the very least it is expected that boys and girls will begin at different levels of depression and thus it is important to determine how

the program will differentially impact on depressive symptoms for boys and girls when comparing them to a control group. Thus, unless the earlier analyses on the whole sample yielded no gender main effects or gender by group interaction effects, separate analyses of the effects of the program were subsequently planned for males and females. Once again, separate multivariate analyses of covariance (MANCOVA) were conducted on the combined depression and hopelessness measures at post-test and follow-up data with pre-test scores from the three depression and hopelessness measures used as covariates. The independent variable was Group (*RAP vs Control*). Univariate follow-ups were used where appropriate and these were followed up by presentation of descriptive statistics (Means and Standard Deviations) separately for males and females.

After these effects were investigated, analyses were conducted to ascertain whether teachers were as effective as mental health professionals (including school counsellors) as group leaders. This was undertaken by examining the RAP group only, using group leader at two levels, teachers versus mental health professionals, as the independent variable, looking at the effect at post-test (T2) holding T1 constant, and the effect at follow-up (T3) when holding T1 constant.

## 5.4. Data Screening

The data was reviewed for outliers, mindful of Stevens' (1986) contention that if the sample is large (>100), there is an expectation that some subjects will be outliers. The three dependent variables were reviewed at pre-test, post-test, and follow-up using box plots. Inspection of box plots revealed no outliers on the RADS, one outlier on the CDI at pre-test, 4 on CDI at post-test and 2 on the CDI at follow-up, giving a total of 7 out of 962. The BHS had 3 outliers at pre-test, 2 at post-test

and 6 at follow-up. While there were some extreme values, a decision was taken not to exclude the relatively small number of outliers because of the large sample size (962). Outliers are most likely to be significant in a small data set.

## 5.5. Power Analysis

The large sample size, (n=1003), ensures adequate power to detect a small to moderate effect size (Cohen, 1988).

## 5.6. Assumption in Multivariate and Univariate Analysis of Covariance

To ensure independence of the observations, checks were performed indicating that each student was in the sample only once and that data was accurately recorded. Students completed the self-report battery independently under supervision and there was no evidence that students' responses were impacted upon by the responses of others.

Tests of normality were conducted on the dependent variables at pre-test. The RADS was found to be normally distributed, however the CDI and the BHS were positively skewed. Parametric and nonparametric correlations were conducted on the three dependent variables. Pearson Correlation ranged from .62 - .71 and Spearman's Correlation from .54 to .71 (See Table 5.3).

Table 5. 3
Parametric and Nonparametric Correlations of Dependent Variables

| Measure | 1 | 2 | 3 |
|---|---|---|---|
| 1. RADS | -- | | |
| 2. CDI | .71 (.71) | -- | |
| 3. BHS | .62 (.54) | .71 (.63) | -- |

Note: Spearman's Correlation (in parentheses), RADS= Reynolds Adolescent depression Scale; CDI= Children's Depression Inventory, BHS= Beck Hopelessness Scale

Square root transformations were conducted on the CDI and BHS raw data and a Pearson Correlation conducted with the transformed data. Given the correlations were .58 between RADS and BHS-SR, .65 between CDI-SR and BHS-SR and .72 between RADS and CDI-SR, it was decided to use the untransformed data for subsequent analyses.

## 5.7. Intervention Effects

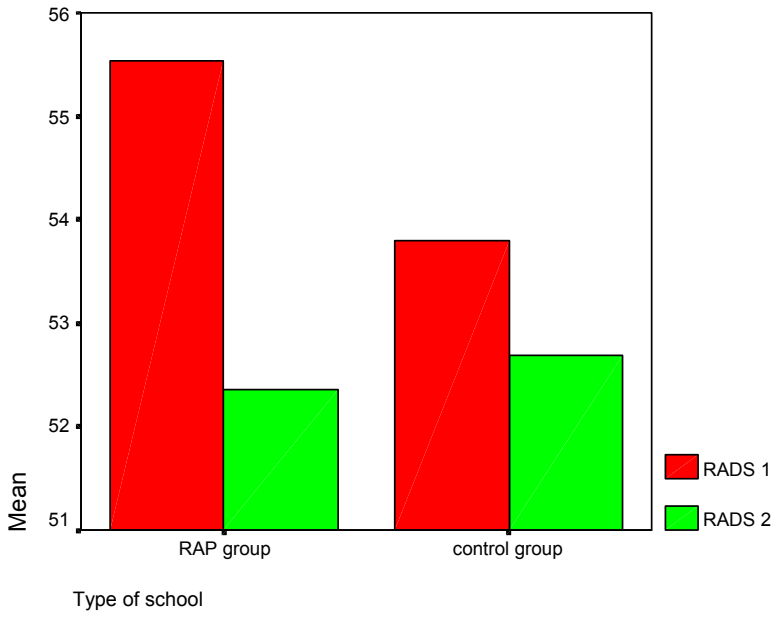
Post-test (T2) Intervention Effects

An analysis was conducted using multivariate analyses of covariance (MANCOVA). The first analysis investigated the effects of the independent variables of Group (*RAP vs control*) and Gender (*male vs female*) on the combined dependent variables (CDI, RADS, BHS) at post-test (T2) using T1 combined depression and hopelessness scores as covariate. A Group main effect was found at post-test (T2) when adjusting for pre-test score (T1), $F$ (3, 797) = 5.34, $p$ = .001, Eta Squared = .018 for the overall Group effect, representing a small significant overall

effect indicating that the intervention group improved relative to the control group. There was also a main effect for Gender at T2, when adjusting for T1, F (3, 797) = 2.93, p = .033, Eta Squared = .011, consistent with the fact that girls in both conditions had higher mean scores than boys (see Table 5.4). There was no significant interaction effects for Group by Gender, however there was a trend in this direction F (3, 797) = 2.45, p = .062.

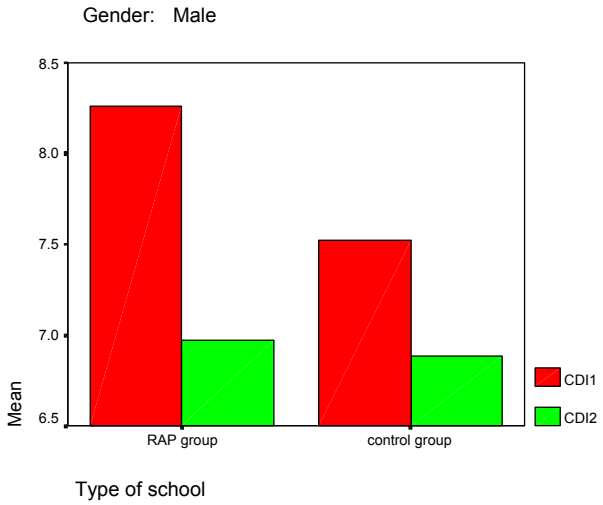
Univariate follow-up to understand the source of the Group effect showed a significant Group effect evident on the RADS at post-test (RADS2), F (1, 806) = 12.76, p = .001, with Eta Squared = .016. Review of the means for the RAP and control groups (See Table 5.4) indicated that while the means of both groups dropped over time, the RAP group experienced a larger fall in symptoms from T1 to T2 than the control group, particularly evident on the RADS2 (see Fig 5.1).

Figure 5. 1 Mean Pre and Post-test RADS Scores for RAP and Control Groups



Given the main effect for gender and the trend towards a gender interaction effect, the data were analysed separately for boys and girls. The analysis examined the effect of the independent variable Group (*RAP vs control*) on the combined dependent variables (RADS, CDI, BHS) at T2 adjusting for T1 (holding T1 scores covariate). The data showed no significant group effects for males at T2 adjusting for T1, although there was a trend in this direction, F (3, 422) = 2.26, p = .081. Inspection of univariate follow-up indicated significance for males on the CDI2, F (1, 372) = 5.08, p< .025, Eta Squared = .012, but not on RADS2 or BHS2.

Figure 5. 2 Mean CDI Scores at Pre and Post-test for Males.




A significant Group effect was found for females at T2 adjusting for T1 for the overall model, F (3, 370) = 5.67, p = .001, Eta Squared = .044. Consistent with this pattern, univariate follow-up analysis indicated significant effect for Group on RADS2, F (1, 377) = 11.59, p = .001, Eta Squared = .030. Figure 5.3 shows mean RADS scores for T1 and T2 by group and for females, indicating that females in the

RAP group reported a fall in depressive symptoms on the RADS at T2, while there was very little change for females in the control group.

Figure 5. 3 Mean RADS Pre and Post-test Scores for RAP and Control Groups for Females

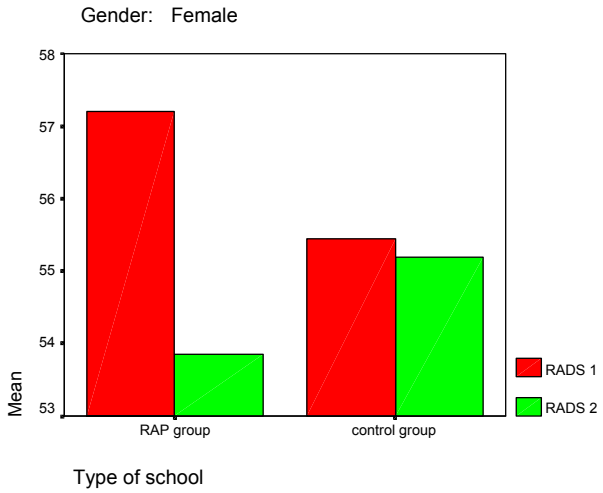


Table 5. 4
Mean RADS, CDI and BHS Pre and Post-test Scores for Intervention and Control Groups

| | INTERVENTION GROUP | | | CONTROL GROUP | | |
|---|---|---|---|---|---|---|
| MEASURE | Intervention Mean (SD) | Male Mean (SD) | Female Mean (SD) | Control Mean (SD) | Male Mean (SD) | Female Mean (SD) |
| RADS 1 | 55.65 (13.39) n=505 | 54.44 (13.17) n=273 | 57.08 (13.53) n=232 | 53.74 (12.83) n=477 | 52.55 (12.53) n=253 | 55.08 (13.06) n=224 |
| RADS 2 | 52.33 (15.11) n=475 | 51.07 (13.66) n=256 | 53.79 (16.56) n=219 | 52.50 (14.61) n=450 | 50.53 (13.58) n=243 | 56.20 (144.28) n=207 |
| CDI 1 | 9.16 (7.75) n=467 | 8.45 (7.46) n=244 | 9.93 (8.01) n=223 | 7.86 (7.20) n=476 | 7.43 (6.83) n=251 | 8.32 (7.59) n=225 |
| CDI 2 | 7.74 (7.83) n=458 | 6.96 (7.13) n=246 | 8.65 (8.49) n=212 | 7.38 (7.57) n=446 | 6.81 (2.41) n=241 | 8.05 (7.50) n=205 |
| BHS 1 | 4.56 (4.34) n=492 | 4.79 (4.44) n=266 | 4.29 (4.22) n=226 | 3.68 (3.72) n=475 | 3.67 (3.68) n=252 | 3.69 (3.78) n=223 |
| BHS 2 | 4.19 (4.29) n=474 | 4.21 (4.11) n=251 | 4.16 (4.49) n=223 | 3.27 (3.65) n=439 | 3.30 (3.73) n=236 | 3.25 (3.57) n=203 |

Note: RADS= Reynolds Adolescent Depression Scale; CDI= Children's Depression Inventory, BHS= Beck Hopelessness Scale, 1= Pre-test, 2=Post-test

Intervention Effects at Follow-up (T3)

Intervention effects at Follow-up were analysed using multivariate analyses of covariance (MANCOVA). An analysis was conducted investigating the effects of the independent variables of Group (*RAP vs control*) and Gender on the combined dependent variables (RADS, CDI, BHS) at follow-up (T3) using T1 combined depression and hopelessness scores as covariates.

There was no Group main effect at Follow-up (T3) when adjusting for T1, however there was a Gender main effect F (3, 763) = 3.54, p = .014, Eta Squared = .014. There was a Group by Gender interaction effect approaching significance F (3, 763) = 2.35, p = .071. Inspection of the means (see Table 5.5) indicates that both groups reported lower mean scores at T3. The pre-test means in Table 5.5 are slightly lower than the pre-test means in Table 5.4 as the follow-up data excludes the thirty-one students referred for mental health assistance.

Given the main effect for gender and the trend towards a gender interaction effect, the data was analysed separately for males and females. The independent variable was Group (*RAP vs control*); the dependent variables were the combined measures of depression and hopelessness (RADS, CDI, BHS) at T3 adjusting for T1 (holding T1 scores covariate). The analyses did not indicate a significant group effect for males, however there was a significant group effect for females, F (3, 366)= 3.66, p = .013, Eta Squared = .029.

Univariate follow-up on the females indicated a significant effect for Group on RADS3, F (1, 368) =5.26, p = .022, Eta Squared = .014. Consistent with the pattern emerging from the above analyses, Figure 5.7 indicating mean RADS scores for T1 and T3 by Group and by Gender shows that females in the RAP group reported a fall in depressive symptoms on the RADS at T3, while there was little change for females in

the control group. No significant effects were found for the CDI or the BHS. Table 5.5 provides an overview of the means by gender and group for each measure at T1 and T3 clearly demonstrating the effect for girls in the RAP group relative to girls in the control group. Follow-up pre-test means (Table 5.5) are slightly lower than pre-test means at post-test (Table 5.4) as the follow-up data excludes the thirty-one students referred for mental health assistance.

Figure 5. 4 Mean RADS Pre-test and Follow-up RAP Group Scores for Females

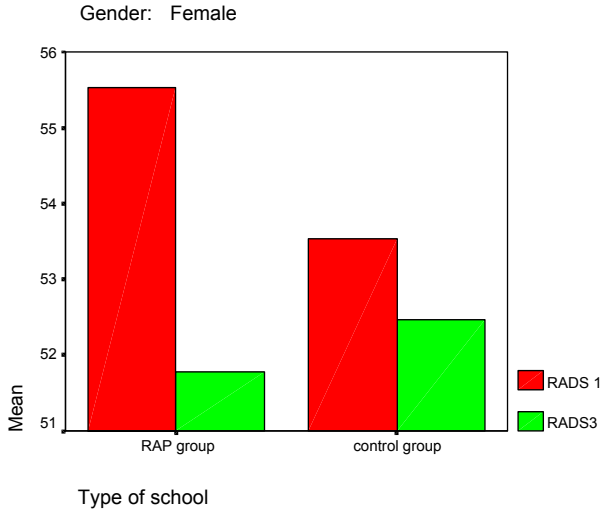


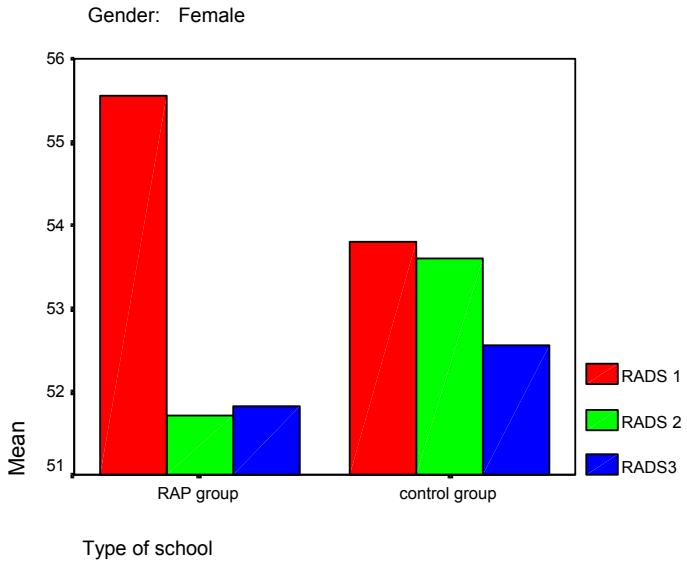
Table 5.5
Mean RADS, CDI and BHS Pre-test and 6-month Follow-up Scores for Intervention and Control Groups

| MEASURE | INTERVENTION GROUP | | | CONTROL GROUP | | |
|---|---|---|---|---|---|---|
| | Intervention Mean (SD) | Male Mean (SD) | Female Mean (SD) | Control Mean (SD) | Male Mean (SD) | Female Mean (SD) |
| RADS 1a | 54.86 (12.74) n=490 | 54.02 (12.78) n=269 | 55.89 (12.63) n=221 | 52.71 (11.70) n=461 | 51.80 (11.66) n=247 | 53.77 (11.67) n=214 |
| RADS 3 | 51.09 (14.42) n=446 | 50.56 (13.43) n=238 | 51.70 (14.06) n=208 | 50.57 (13.02) n=423 | 48.86 (12.64) n=222 | 52.45 (13.21) n=201 |
| CDI 1a | 8.67 (7.22) n=452 | 8.25 (7.29) n=232 | 9.14 (7.13) n=206 | 7.19 (6.23) n=460 | 6.99 (6.21) n=245 | 7.42 (6.26) n=215 |
| CDI 3 | 7.42 (7.77) n =438 | 7.05 (8.06) n=246 | 7.83 (7.44) n=212 | 6.43 (6.57) n=419 | 6.33 (6.83) n=217 | 6.54 (6.33) n=202 |
| BHS 1a | 4.35 (4.14) n =479 | 4.64 (4.29) n=262 | 4.00 (3.94) n=217 | 3.38 (3.32) n=459 | 3.43 (3.29) n=246 | 3.33 (3.36) n=213 |
| BHS 3 | 3.73 (3.90) n=435 | 3.93 (3.98) n=229 | 3.51 (3.80) n=206 | 3.07 (3.44) n=414 | 3.41 (3.79) n=216 | 2.69 (2.96) n=198 |

Note: RADS= Reynolds Adolescent Depression Scale; CDI= Children's Depression Inventory, BHS= Beck Hopelessness Scale;
1a= Pre-test excluding 31 students interviewed following post-test; 3= Follow-up

In summary, while there was no overall group effect for the intervention at T3, as Figure 5.5 indicates, the program was effective for girls in the RAP group at post-test and the drop in reported levels of depressive symptoms was still evident at the six month follow-up.

Figure 5. 5 Mean RADS Scores for Females Across Three Occasions of Testing by Group




Group Leader Effects

Multivariate analyses of covariance were conducted to determine the impact of the leaders' occupational training (teacher or mental health professional) on the outcome for the RAP group. Analyses investigated the effects of the independent variable Leader (*teachers vs mental health professionals*), on the combined dependent variables (RADS, CDI, BHS), on the RAP group only at T2 and at T3 using T1 combined depression and hopelessness scores as covariate.

Separate analyses were conducted to examine the impact of the leaders' occupational training for boys and girls. Analyses revealed no significant differences

between teachers and mental health professionals (including school counsellors) as group leaders at T2 when adjusting for T1, for either boys F (3,194)=1.052, p >.05, or girls F (3,171) = .25, p >.05.

Consistent with the T1, T2 analyses, T1, T3 analyses showed no significant differences between teachers and mental health professionals (including school counsellors) as group leaders at follow-up (T3) when adjusting for T1, for either boys F (3,191) =1.01, p > .05, or girls F (3, 164) = .21, p > .05. There was some variation in means at T3, RADS (Teacher =52.65, Health Worker =49.86), however these were not significant when adjusting for T1.

Summary and analyses and interpretations of intervention effect sizes

Results indicate that for the group as a whole, the RAP group had fewer depressive symptoms relative to the control group at T2 when holding T1 constant. As mentioned, the Eta Squared, indicating the proportion of variance accounted for by the Independent Variable, was small, (Eta Squared= .018). The proportion of variance however, is considered to be misleading in this type of research (Lipsey, 1990), as much of the variation in dependent variables in treatment research has many sources unaffected by treatment. Lipsey (1990, p.58) provides a table that converts proportion of variance as indicated by Eta Squared into the Effect Size (ES) and into a statistic referred to as the Binomial Effect Size Display (BESD) devised by Rosenthal and Rubin (1982). The BESD is an estimate of the extent to which the average participant in the intervention surpasses the median score compared to the average participant in the control group, and from there, the differential percentage of improvement in the success rate of the intervention compared to the control is calculated. According to the table devised by Lipsey (1990), an Eta Squared of .018 translates into an ES of approximately

0.3, and that translates into a 15 % differential success rate of intervention over control. For the girls on their own, the significant Eta Squared of .044 at post-intervention translates to an ES of just over 0.4 with a BESD differential success rate of intervention over control of 20%, suggesting that on average approximately 20% of females are better off at post-intervention because of exposure to RAP. For the males the overall effect was not significant for the combined DV's and on the CDI alone, the Eta Squared of .01 translates into an ES of 0.2 with a BESD differential of 10 %. Looking at these figures one could argue that the program was at the very least twice as effective for girls than for boys at Post-Intervention. The approach adopted above, is endorsed by Durlak and Wells (1997) in their pioneering meta-analytic review of primary prevention mental health programs.

At follow-up there was no overall effect for the males on either univariate or multivariate analyses. For females the significant multivariate analysis had an Eta Squared of .029 translates into an ES of approximately 0.35 with a differential success of between 15% and 20% on the BESD. In other words, between 15% and 20% of females in the RAP group are better off than their control counterparts because of their exposure to the intervention.

In the section below the question of who benefited most from the program is examined more closely. Did the program help previously symptomatic adolescents to become healthy or was the program more beneficial in keeping previously healthy adolescents from becoming symptomatic?

## 5.8. Health Promotion Significance

It is important for prevention studies, like treatment outcome studies, to examine results more closely beyond effect sizes. In treatment studies this is referred to as clinical

significance. In the current study, an investigation of the effects of the intervention at post-test and follow-up, stratified by levels of depressive symptoms reported by female students at pre-test was considered to be useful. Do the healthy remain healthy or do the symptomatic become healthier? Thus the following question was examined: what were the post-test and follow-up symptom levels for females in the RAP and Control group for those who were previously healthy, and for those who were symptomatic at pre-test?

This question was examined using the RADS as this was the most robust of the measures in terms of established clinical cut-offs, and accounted for most of the variance in female/male effects at post-test and follow-up. The RADS manual (Reynolds, 1987) provides a cut-off score to "delineate a level of symptom endorsement associated with clinical depression" (Reynolds, 1987, p.6) however it does not provide further stratification enabling designation of healthy versus sub-clinical scores. To examine students' movements in and out of categories of severity of depressive symptoms over time, a quartile split was conducted on RADS scores at pre-test and levels of depressive symptoms were defined on that basis.

Students in the bottom 2 quartiles that is, up to the $50^{th}$ percentile (RADS scores up to 54) were considered to be well within the healthy range and labelled "Level 1" in the Tables below. RADS scores for students in the $3^{rd}$ quartile ($51^{st}$ –$75^{th}$ percentiles) ranged from 55 to 64. While students in this group (labelled "Level 2") are not regarded as having clinically relevant symptoms, these students endorsed a greater number of depressive symptoms than students in Level 1. Students in the $4^{th}$ quartile, labelled "Level 3", included females who reported higher levels of depressive symptoms than students in the $3^{rd}$ quartile (RADS scores from 65 to 94), and in 10% of cases, clinically relevant levels of depressive symptomatology. For ease of discussion the quartile split groups will be referred to as Level 1, Level 2 or Level 3.

Firstly, the impact of the intervention on girls in Level 1 (the bottom two quartiles at pre-intervention) was investigated. There was no significant difference between the RAP and control groups in terms of health status at pre-test, $\chi^2(1)$ (n=229) = .035, $\underline{p} > .89$. RAP students in the bottom two quartiles were significantly more healthy at post-test than control, $\chi^2(2)$ (n=208) = 10.86, $\underline{p} < .005$, with 6.8% of the RAP group versus 21.7% of the control group moving from the healthy to the less healthy categories. Although not statistically significant at follow-up, ($\chi^2(2)$ (n=214) = 2.77, $\underline{p}$ = .125, there was a trend in the same direction.

Table 5. 6
Number and Percentage (in Parenthesis) of Adolescents in Level 1 at Pre-test, Tracked by Level at Post-test and Follow-up for the RAP and Control Groups.

| | Level | RAP | Control |
|---|---|---|---|
| | | n (%) | n (%) |
| Pre-test Status | 1 | 112 | 117 |
| Post-test Status | 1 | 95 (93.1) | 83 (78.3 ) |
| | 2 | 4 (3.9) | 19 (17.9) |
| | 3 | 3 (2.9) | 4 (3.8) |
| Follow-up Status | 1 | 86 (83.5) | 86 (77.5) |
| | 2 | 9 (8.7) | 18 (16.2) |
| | 3 | 8 (7.8) | 7 (6.3) |

Next, data for the females in Level 2 (the 3rd quartile at pre-test) was reviewed. No significant differences were found at post-test, $\chi^2(2)$ (n= 113) = 1.017, p = .601 nor at follow-up, $\chi^2$ (2) (n=114) = 3.66, p = .16. Forty-nine percent of RAP versus 40% of controls moved to the Level 1, and 12.7% of RAP versus 27.1% of controls moved to Level 3.

Table 5. 7
Number and Percentage of Adolescents in Level 2 at Pre-test, Tracked by Level at Post-test and Follow-up for the RAP and Control Groups.

| | Level | RAP n (%) | Control n (%) |
|---|---|---|---|
| Pre-test Status | 2 | 57 | 63 |
| Post-test Status | 1 | 25 (45.5) | 21 (36.2) |
| | 2 | 19 (34.5) | 24 (41.4) |
| | 3 | 11 (20.0) | 13 (22.4) |
| Follow-up Status | 1 | 27 (49.1) | 24 (40.7) |
| | 2 | 21 (38.2) | 19 (32.2) |
| | 3 | 7 (12.7) | 16 (27.1) |

Finally, data for the adolescents in Level 3 at pre-test was analysed. There were no significant differences for the RAP group at post-test, $\chi^2$ (2) = 2.27, p = .32.

In summary, girls in the RAP group who were in the Level 1 category at pre-test were much more likely than controls to be healthy at post-test and to a large extent at

follow-up. Thus, on balance, it would see that while all the movement was in the right direction, the strongest impact of the program was in keeping the healthy girls from becoming symptomatic.

Table 5. 8
Number and Percentage of Adolescents in Level 3 at pre-test Tracked by Level at Post-test and Follow-up for the RAP and Control Groups.

| | Level | RAP<br>n (%) | Control<br>n (%) |
|---|---|---|---|
| Pre-test Status | 3 | 63 | 44 |
| Post-test Status | 1 | 9 (15.3) | 4 (9.5) |
| | 2 | 15 (25.4) | 7 (16.7) |
| | 3 | 35 (59.3) | 31 (73.8) |
| Follow-up Status | 1 | 14 (25.0) | 7 (17.9) |
| | 2 | 10 (17.9) | 9 (23.1) |
| | 3 | 32 (57.1) | 23 (59.0) |

# CHAPTER 6

## QUANTITATIVE AND QUALITATIVE STUDENT EVALUATION

### 6.1. Student Evaluation

Following Punch (1998), the current research investigated the students' opinions of the RAP program using quantitative and qualitative approaches. The combination of the qualitative and quantitative approaches was used to provide richer insight into the girls' and boys' perceptions of the intervention, including aspects of the program the adolescents rated as adding to their coping resources and aspects they would change. Exploration of gender responses provided one means of investigating similarities and differences in emotional processes for girls and boys, thus potentially providing directions for adaptation and further development of prevention programs. This chapter outlines the quantitative and qualitative results.

### 6.2. Quantitative Results

There were no significant gender differences in the student quantitative evaluation of the program. Thus the information presented below is representative of the whole group. Group means for each of the twenty evaluation questions were calculated using a four point rating scale. The means are difficult to interpret, as low scores do not always represent either a positive or a negative response. A mean of 1.79 for evaluation of group leaders indicates a high rate of approval for group leaders while a mean of 3.50 for frequency of talking with parents about sessions and frequency of friends noticing changes indicates low frequencies for both.

An examination of percentages for each response yields more useful information. There was considerable variation in the evaluation of the program, but the responses were more positive than negative. Inspection of Table 6.1 indicates the range of questions canvassed in the self-report student evaluation. Out of the 379 respondents, 44.27% rated the program overall as either “excellent” (15.5%) or “very good” (27.2%), 40.5% as “quite good” and 16.8% as “no good”. Three questions investigated how commonly the students discussed the sessions with others. Approximately 70% discussed the program with friends not in the group either “always”, “most times” or “sometimes”. Slightly fewer (64%) discussed the program with others in the group while 40% discussed the program with their parents. Between 30% and 40% never discussed the program with friends and 60% did not ever discuss the program with their parents

Three questions asked students to nominate whether they thought others (friends, family or teachers) had noticed a change in them following the program. Twenty-three percent indicated that one of three categories of significant others had noticed some change.

Approximately 44% (n=165) of students indicated that the program had made either “a huge difference” or “some difference” to their daily lives. Students identified a range of positive coping skills as beneficial outcomes of the program. Forty to fifty percent of students nominated that the group made either “a huge difference” or “some difference” to their capacity to manage conflict, cope better, deal with stress, increase in confidence and a more positive outlook.

The students were particularly positive about the group leaders with 78% (n=295) agreeing that the leaders were either “excellent” or “very good” and a further 18.4% (n=69) endorsing the leaders as “quite good”.

Table 6. 1
Frequency and Percentage for Students' Responses to RAP Evaluation Questionnaire

| **Question** | n (%) | n (%) | n (%) | n (%) | N |
|---|---|---|---|---|---|
| | **A lot** | **Quite a bit** | **Not much** | **Never** | **Total** |
| Look forward to coming | 37 (9.8) | 142 (37.6) | 160 (42.3) | 39 (10.3) | 378 |
| Go for longer | 34 (9.0) | 73 (19.3) | 159 (42.0) | 113 (29.8) | 379 |
| | **Always** | **Mostly** | **Sometimes** | **Never** | **Total** |
| Talk with friends not in group | 16 (4.2) | 50 (13.2) | 199 (52.6) | 113 (29.9) | 378 |
| Talk with others in group | 10 (2.0) | 50 (13.2) | 176 (46.6) | 142 (37.6) | 378 |
| Talk with parents | 9 (2.4) | 21 (5.5) | 121 (31.9) | 228 (60.2) | 379 |
| | **Excellent** | **V. Good** | **Quite good** | **No Good** | **Total** |
| Group leaders | 171 (45.5) | 124 (33.0) | 69 (18.4) | 12 (3.2) | 376 |
| How good was group | 55 (14.5) | 130 (34.3) | 166 (43.8) | 28 (7.4) | 379 |
| | **Huge difference** | **Some difference** | **Little difference** | **No Difference** | **Total** |
| Difference to daily life | 20 (5.3) | 145 (38.3) | 117 (30.9) | 97 (25.6) | 379 |
| Number of friends | 10 (2.6) | 62 (16.4) | 110 (29.1) | 196 (51.9) | 378 |
| Get on with friends | 16 (4.2) | 80 (21.2) | 112 (29.7) | 169 (44.8) | 377 |
| Get on with family | 11 (2.9) | 68 (13.3) | 119 (31.5) | 189 (47.6) | 378 |
| Helping confidence | 27 (7.1) | 127 (33.6) | 115 (30.4) | 109 (28.8) | 378 |
| Cope better | 34 (9.0) | 138 (36.7) | 115 (30.6) | 89 (23.7) | 376 |
| Deal with stress | 33 (8.8) | 126 (33.4) | 121 (32.1) | 97 (25.7) | 377 |
| Feel more positive | 26 (6.9) | 133 (35.2) | 127 (33.6) | 92 (24.3) | 378 |
| Friends noticed change | 7 (1.9) | 51 (13.6) | 94 (25.1) | 222 (59.4) | 374 |
| Parents noticed change | 6 (1.6) | 39 (10.5) | 91 (24.4) | 237 (63.5) | 373 |
| Teachers noticed change | 9 (2.4) | 42 11.3) | 85 (22.8) | 236 (63.4) | 372 |
| | **Definitely** | **Probably** | **Possibly** | **No** | 378 |
| Recommend to friends | 35 (9.3) | 92 (24.5) | 150 (40.0) | 98 (26.1) | 375 |
| | **Excellent** | **V. Good** | **Quite good** | **No Good** | **Total** |
| Overall evaluation | 58 (15.5) | 102 (27.2) | 152 (40.5) | 63 (16.8) | 375 |

In summary, the quantitative evaluation indicated that there was some variation in the student evaluation of the program. Overall, the responses to the program were more positive than negative. Clearly the majority of students appreciated the group leaders and a significant number of students identified an increased range of positive coping skills, endorsing ratings to suggest they attribute increased competence, confidence and a positive outlook to participation in the program.

## 6.3. Qualitative Results

**Question 1: Can you tell me what you remember the RAP program being about?**

The majority of adolescents (65% of girls and 49.6% of boys) recalled aspects of the program relating to self-esteem and self-confidence. Many of the students talked about problem solving and coping skills in general, while some nominated specific areas such as managing problems with friends or family. On the whole, the responses from the boys tended to be briefer than those of the girls. A number of boys recalled aspects of the program connected with managing feelings and relationships. Similar themes emerged for males and females.

Table 6. 3
Themes and Frequency by Gender for Question 1.

| | Girls (n=49) | | Boys (n=60) | |
|---|---|---|---|---|
| | n | ( %) | n | (%) |
| Themes | | | | |
| 1. Self-esteem / self-confidence | 32 | (65.3) | 28 | (46.6) |
| 2. Solve problems | 15 | (30.6) | 20 | (33.3) |
| 3. Manage relationships | 10 | (20.4) | 19 | (31.6) |
| 4. Coping with emotions | 6 | (12.2) | 9 | (15.0) |
| 5. Coping with adolescent issues | 4 | (8.1) | 3 | (5.0) |
| 6. Stress management | 2 | (4.0) | 3 | (5.0) |
| 7. Thinking style | 2 | (4.0) | 4 | (6.6) |
| 8. Suicide/depression | 1 | (2.0) | 4 | (6.6) |
| 9. Help seeking/helping others | 3 | (6.1) | 3 | (5.0) |
| 10. Other | 6 | (12.2) | 5 | (8.3) |

Examples of direct quotes from girls relating to program content

"It was about self-esteem and it just helps you. Like if you have any problems, who you can turn to, who you can trust and about your friends and family and stuff like that."(Themes 1, 9)

"I remember it had lots to do with your network of friends, how you feel about yourself and situations that are hard to face and how to overcome them." (Themes 1, 2, 5)

"It helped me with my self-esteem and all my confidence. Helped people get together. I met new girls that came to the school. I got closer to them." (Themes 1, 3)

"About how to treat others, self esteem and stuff like that, how to be calm about situations." (Themes 3, 1, 6)

"It was trying to make you feel better about yourself and dealing with your problems. Trying to teach you what to do, anything you had on your mind. If you had something on your mind, how to deal with it." (Themes 1, 2)

"I think it was about getting us so we don't stress if there were exams or anything like that and it kind of helps. I think they chose people that I don't really talk to and no one else in the group, so you kind of know people in the grade more so that was kind of good to find out about them." (Themes 6, 9)

Examples of direct quotes from boys relating to program content

"It was about how we think of ourselves, confidence, friends, how to handle your problems." (Themes 1, 2)

"I remember that it helped you deal with problems that you have. I thought that was a good thing about it. Other ways to solve problems, like you don't go for hitting the guy first, you talk to him." (Themes 2, 3)

"Relieving stress, getting an efficient way to deal with problems, solving problems." (Themes 6,2)

"About how to cope with other people, family, friends, self-confidence, self esteem." (Themes 1, 3)

**Question 2: What did you like most about the program?**

Students, particularly the boys (43%; girls 30.6%), commented most frequently that the physical activities and games were the most enjoyable part of the program. A number of students liked being in a group that provided them with the opportunity to share ideas, listen to each other and to feel safe within the group. Some of the students noted that they had acquired new coping skills. Most students were able to nominate aspects of the program they liked with the exception of 7 (6 boys and 1 girl) of the 109 who said they didn't know or weren't interested.

Table 6. 4
Themes and Frequency by Gender for Question 2.

| | Girls (n=49) | | Boys (n=60) | |
|---|---|---|---|---|
| | n | (%) | n | (%) |
| Theme | | | | |
| 1. Activities/games/role plays | 15 | (30.6) | 26 | (43.3) |
| 2. Group work/team work/ relating to others/new friends | 14 | (28.5) | 17 | (23.3) |
| 3. Discussion | 11 | (22.4) | 10 | (16.6) |
| 4. Whole program | 2 | (4.0) | 1 | (3.3) |
| 5. Freedom to express views | 8 | (16.3) | 3 | (13.3) |
| 6. Useful/helpful | 6 | (12.2) | 5 | (8.3) |
| 7. Book/written activities | 6 | (12.2) | 6 | (8.3) |
| 8. Group Leader | 4 | (8.2) | 1 | (1.6) |
| 9. Unsure/don't know | 1 | (2.0) | 6 | (8.3) |
| 10. Miscellaneous-party, bludge, videos | 9 | (18.4) | 10 | (16.6) |

Examples of direct quotes from girls relating to program enjoyment

"I liked the class discussion. People didn't feel like down, everyone just joined in together and had a say in everything." (Theme 3)

"We could talk about things, about our friends and that. They showed us how to deal with ourself a bit, with these blocks (bricks), what you liked about yourself. It was interesting. I've never done that stuff before, looked at that stuff." (Themes 1, 5)

"It was very unique, the way it was done, it was unique. It wasn't just some talk, they explained it to you well, played those games, group games to show team work. It was very well done. I just liked the whole program itself. I think it was really good."

(Themes 1, 4,5)

"I liked having the discussions because my group leader was really good person to talk to."
(Themes 3, 8)

"When we were doing the book, it had all the steps in there. It helped me build up my confidence. The way the lady talked to us, it just sort of built me up." (Theme 7, 8)

"I liked the games of how we relate to each other. It kind of helps us out, based on our own knowledge, when it comes to our family - trying to talk to them. We did a lot of theory work and practical work. It helped us with our temper and stuff. It helped us to cool down. Helped us, the self-esteem thing, to relate to our friends and stuff." (Themes 1, 2)

"I didn't know many people in our group but after the term was over I knew everybody and they were all my friends and it was really good. I thought it was fun. It gave me a lot of confidence, because I was so shy, I didn't want to say anything at the beginning but then I was so loud at the end, they couldn't shut me up. We still talk." (Theme 2)

"I think I like the fact that you get to talk to someone that you've never talked to before. It was surprising because they were nice and all." (Theme 5)

"I thought it was good when we were in a group, to hear other people's suggestions and how they deal with things and what they do and just to know that you're not the only one. I liked that." (Theme 3)

"When you got to talk about how to calm yourself because it makes you feel like you can actually do it when a situation comes." (Theme 6)

<u>Examples of direct quotes from boys relating to program enjoyment</u>

"The fun activities that made it interesting and made it fun to learn. Group activities, like working together." (Themes 1,2)

"I enjoyed the whole program, I liked learning different ways to find out about stress, to correspond with other people and see what they're going through." (Themes 4, 6)

"When we had to work in the groups and figure out ways to do stuff." (Themes 2 and 8)

"When we did physical stuff, we got up and did activities together and tried to figure out problems. That was pretty cool." (Theme 1)

"I liked learning ways to cope with pressure, I found it quite useful. When it comes to exam time I'm able to relax instead of getting all hyped up." (Theme 6)

"Relieving stress, getting an efficient way to deal with problems, solving problems." (Theme 6)

"Making paper aeroplanes! The last day was pretty good – the party that we had and all the food and mucked around a lot." (Themes 1, 10)

"When we could freely express ourselves with knowing that it's not going to go anywhere." (Theme 5)

"Not much. I would have rather been doing sport but that's what happens." (Theme 9)

"Just getting together with your friends and having a laugh and learning at the same time. Learning how to work as a team to do different things. The games." (Themes 1, 2)

**Question 3: Any specific examples where you have used the skills from RAP?**

Fifty-four percent of the students were able to nominate specific instances where they had used skills gained, in their own estimation, from their participation in RAP. A further 8.3% stated that the program was beneficial but did not nominate specific examples. Approximately 25% either were unsure or stated they hadn't used the skills much or not at all. The remainder comprised of approximately 7.3% who stated they had not encountered a situation requiring the use of RAP skills and 2.8% who claimed to possess the skills prior to RAP. While the boys were less able to articulate specific examples of RAP utilization, a higher percentage of boys (13.3%) than girls (2%) stated that they found the program to be beneficial even though they were unable to recall specific examples. Boys more commonly cited examples involving anger control, while girls more commonly cited examples that involved managing relationships with friends and perspective taking

Table 6. 5
Themes and Frequency by Gender for Question 3.

| | Girls (n = 49) | | Boys (n=60) | |
|---|---|---|---|---|
| | n | (%) | n | (%) |
| Theme | | | | |
| 1. Managing anger | 2 | (4) | 7 | (11.7) |
| 2. Managing relationships/ friends | 9 | (18.4) | 6 | (10.0) |
| 3. Managing relationships/ parents, sibs | 6 | (12.2) | 5 | (8.3) |
| 4 Recognising others' perspectives | 6 | (12.2) | 3 | (5.0) |
| 5. More confident, more positive | 3 | (6.1) | 6 | (10.0) |
| 6. Managing stress | 6 | (12.2) | 5 | (8.3) |
| 7. Use of cognitive restructuring | 4 | (8.2) | 6 | (10.0) |
| 8. Improved decision making | 1 | (2.0) | 2 | (3.3) |
| 9. Beneficial, no specific example | 1 | (2.0) | 8 | (13.3) |
| 10. Skills prior to RAP | 1 | (2.0) | 2 | (3.3) |
| 11. Haven't needed skills | 4 | (8.2) | 4 | (6.7) |
| 12. No /Not much / Don't know | 13 | (26.5) | 14 | (24.7) |

Examples of direct quotes from girls relating to skills attributed to program

"That staying calm thing has helped me a lot. My dad, he's really angry and I've got his anger. I used to go around hitting people if I got angry or bashing in the wall in my room and I used to just yell and yell. Now I listen to music." (Theme 6, 1)

"Yes. There's a friendship group fight and it was because of me - they thought I was doing something wrong. Instead of going up there telling them off I just stayed low for a while. I didn't really pay attention on how they were treating me. Over time I realised that it wasn't that good. So I came up to them and I talked to them and it's all sorted out. Before I would have said a few things that I wouldn't have meant." (Theme 2)

"With my sister. My Aunty and Uncle are living with us and we have to share a room. It's been 6 months already and she takes over my room and I didn't yell at her - I remembered and I just told her how I felt and said we had to clean up the room. Before I

think I would have just blown it. At school, when I need help I go up to the teacher. I used to just sit there and try to do it myself. It's been building up my marks because I know how to do it." (Themes 3, 5)

"Yeah there has been (some times). Me and a friend of mine, we had a bit of an argument about something. She always thought that she was right about it and when she was wrong, we went and talked to a friend of ours about it, we didn't argue about it, we just talked it through and got the whole thing fixed up. Before, we would have started yelling and thrown our tempers. I think it's because of the RAP program. It gave me more confidence to do things I didn't think I could do before." (Theme 2, 5)

"I had really low self-esteem about myself earlier this year. I'm not going to be big-headed or anything but we this group thing and we had to write down about other people, what they're about and stuff and put in an envelope and I still look at it and stuff. I kind of think what do other people think about me. That's how my self-esteem boosts. When they write that about me - that I was nice, it really helped me out. I didn't realise people thought of me that way." (Theme 5, 7)

"With your parents and stuff, you should see their side of the story more." (Themes 3, 4)

"I can't believe my sister – like we have a good friendship and stuff but sometimes she can be a bit annoying and I just count to 10 sometimes and go off. Before I would have an argument with her or something like that." (Themes 6, 3)

"I was already like that before (as in being able to be calm, relax etc). It was like, you're like this and this is what we want you to be like." (Theme 10)

"Sometimes, yeah but what they told us, it sort of made us think and …. Well when the RAP program was on I was in a group that I didn't really feel comfortable around so it sort of helped me make up my mind and move to another group and so now I'm in another group and I'm happy. So it did help me…yeah. There were things like on friends and family, things on friends that really hit me, like when they were having fights, not really agreeing with them, not really happy with them and other people said you don't really fit into that group." (Themes 2, 3, 8)

<u>Examples of direct quotes from boys relating to skills attributed to program</u>

"I wouldn't use it every day but I've used it before. At my best friend's party there was a bit of drug use there, it got offered to me but I just passed it along and nothing was said. Before I probably would have used it if I didn't do RAP because I probably wasn't thinking then, like afterwards it made me think about a lot of things like that." (Theme 8)

"Yeah, usually when I get worried and things, I usually use the program's ideas of figuring out the problem and sorting out what to do - I use that regularly. If I'd never done the program I would have stressed out about it." (Themes 5, 6, 7)

"Not really, but it helps you in some situations." (Theme 12)

"When we play football, if someone starts swearing, I think don't worry, don't hit him yet - work things out first. Before I would have started punching way before." (Theme 1, 7)

"If a brother or a friend does something stupid I just think about keeping calm and not going overboard because later on you think, why did I do that for. Before I would have gone over the top and gotten angry." (Themes 1, 2, 3)

"Yes, I was pretty stressed one night and I put on some really calm music and relaxed. Before I wouldn't have done anything. I used to be pretty pessimistic about stuff, used to think everything bad is going to happen but now I've changed it a bit." (Themes 6, 7)

**Question 4: Have other people noticed any changes in you?**

The interviewer inadvertently omitted this question in a number of interviews particularly for the all-girls school, where only 11 of 38 students were asked this question. Consequently no conclusions can be drawn regarding the girls' responses to this question. Approximately half of the boys reported that others had noticed they had changed and family followed by friends noted these predominantly.

Table 6. 6
Themes and Frequency by Gender for Question 4.

| | Girls (n=49) | | Boys (n=60) | |
|---|---|---|---|---|
| | n | (%) | n | (%) |
| Theme | | | | |
| 1. Family | 4 | (8.1) | 13 | (21.6) |
| 2. Friends | 3 | (6.1) | 6 | (10.0) |
| 3. Yes, unspecified who | 2 | (4.0) | 5 | (8.3) |
| 4. Probably /maybe/unsure | 6 | (12.2) | 10 | (16.6) |
| 5. Don't think so / No | 2 | (4.0) | 15 | (25) |
| 6. Missing | 32 | (65.3) | 12 | (20) |

Examples of direct quotes from girls relating to changes noticed by others.

"My friends have been saying I'm happier because I'm normally a grumpy person. Just after it, I sort of got a bit happier. I started to think about what it was about." (Theme 2 )

"I don't know - maybe." (Theme 4)

"Some of them have. They said 'your confidence has changed' and stuff like that." (Theme 3)

"I haven't really changed that much, probably not physically but in my mind.. that's about it."
(Theme 4)

"I'm not really sure. Maybe some people." (Theme 4)

"Yeah, I wasn't social before because I didn't want to go out with my friends that I was with, so I just sort of stayed at home doing things. But now I'm with this group I go out almost every weekend. I think my Mum once said 'Why don't you go out as often as you did before', but now I do go out more." (Theme 1 and 2)

Examples of direct quotes from boys relating to changes noticed by others.

"No." (Theme 5)

"Yes, my parents have noticed I'm calm lately. They want to know why I'm so calm, normally I snap back at them when something goes wrong, but now I let it go over and sort it out. I say 'keep calm, you can work this out' - it just comes to me." (Theme 1)

"Yeah, because I gave my mum the book (RAP workbook) and she noticed that I was doing some of the stuff in the book. (She thought) it was pretty good, she said I learnt a lot during that." (Theme 1)

"My brothers probably have. A few of my friends have, they say 'you're acting differently now'." (Theme 1)

"Maybe, mainly family would have noticed changes. I used to be a bit by myself and now I come out and talk to them." (Theme 1)

"Maybe my parents, but not really." (Theme 4)

"Probably, a few of my friends and peers. Maybe me not getting angry at other people to easily." (Theme 2)

"Yeah, they (siblings) they I am a little more mature. I just get along with them better." (Theme 1)

**"**Don't think so - no one's mentioned it." (Theme 4)

**Question 5: What suggestions would you have for improving the program?**

Approximately one third of students suggested more fun activities (role plays, games, outside activities) with boys and girls both endorsing this suggestion (33.3% boys and 28.5% girls). Approximately 30% of both girls and boys felt that no changes to the program were necessary. A group of students, particularly boys, stated that they did not want RAP to be held during sport time.

Table 6. 7
Themes and Frequency by Gender for Question 5.

| | Girls (n=49) | | Boys (n=60) | |
|---|---|---|---|---|
| | n | (%) | n | (%) |
| Theme | | | | |
| 1. More fun activities /games /role plays | 14 | (28.5) | 21 | (33.3) |
| 2. Don't know/unsure | 7 | (14.2) | 5 | (8.3) |
| 3. No change necessary | 16 | (32.6) | 19 | (31.7) |
| 4. More movies/longer movies | 4 | (8.2) | 0 | (0) |
| 5. More group involvement /working together | 5 | (10.2) | 3 | (5.0) |
| 6. Changes in topics / different or more | 5 | (10.2) | 2 | (3.3) |
| 7. Change to structure or time<br>-longer/shorter/not during sport | 2 | (4.0) | 7 | (11.7) |
| 8. Change to group<br>-different leader/members | 3 | (6.1) | 2 | (3.3) |
| 9. Miscellaneous<br>-more adult<br>-less repetitive<br>-provide to Yr 7 | 2 | (4.0) | 3 | (5.0) |
| 10. Dislike mentioned but no suggestion for change | 3 | (6.1) | 5 | (8.3) |

Examples of direct quotes from girls relating to suggestions for program improvement.

"More activities where people work together and believe in each other like, "you can do that"… stuff like that." (Themes 1 and 5)

"I wouldn't have a clue. I don't know." (Themes 2)

“Make more practical activities. Instead of writing in those books, go outside or something. Make it a bit more fun. Interest the kids because they’ll just lose interest.” (Theme 1)

“Maybe go on for two terms instead of one.” (Theme 7)

“I wouldn’t make any. I was really happy with what it was.” (Theme 3)

“More games and things like that. Have a bit more exciting things. A lot of people thought it was so boring because we did a lot of writing. The book was a bit long. People thought it went for too long. Have more videos - they were too short.” (Themes 1 and 4)

“My class was a bit noisy, they didn’t really take much in. It was pretty good. I would change it to year 7, instead of doing peer support with the leaders, they don’t do much, you can actually learn more with each other in year 7, because you’re new to the school. I got bits and pieces out of it, like the thinking about stuff, it gave me a bit more self esteem.” (Theme 9)

“Some of the situations they gave us, I thought they were too easy, like with our group we all knew how to solve it, they weren’t really something that we were stumped on. I thought it (the program) was good - at the time people think it’s not going to help you but in the future it would help you. Most people probably didn’t like it because it was during sport time.” (Themes 3 and 7)

“Discussing it - it was good but it was kind of boring. Probably have better topics, more interesting games where you get up and move around instead of just sitting there talking. Like not just on staying calm, but on actual teenage life.” (Themes 6 and 1)

<u>Examples of direct quotes from boys relating to suggestions for program improvement.</u>

“It’s pretty successful the way it is right now, you’d have to think a fair while before making any changes to it. Just probably like filling out the sheets (I didn’t like that). The program just helps you everyday, especially like adolescent age.” (Themes 3)

“We did a lot of discussion, maybe less writing, more practical stuff. It didn’t really mean much, we were just writing it down.” (Themes 1)

“Maybe make it a bit longer.” (Theme 7)

“It was a bit long, some of the things were a bit boring. Sometimes it got too boring, like specific subjects and they just kept talking about it. Too repetitive. More activities instead of just sitting down reading and the work in the book, that was pretty boring.” (Themes 1, 7)

“I think I liked most of it. I can’t remember anything I didn’t like. I think the groups ought to be a bit smaller, one or two people less.” (Theme 8)

"Sometimes when we just talked and we didn't do any activities in the lesson. I liked it when we talked and then did something. I'd suggest teaching and then doing other activities, I thought that was an easy way to learn. It was something that I would have needed for the future. I thought it was pretty good." (Theme 1)

"Sometimes the book work was… most kids didn't like it. Thursday afternoon, sport was on and so kids got a bit aggravated. Some of the activities were a bit childish. Maybe some of the scales and stuff.. doing that every week .. that wasn't all that.. a bit boring." (Theme7)

"Make it through school, the actual classes not during sport. Not as much writing, more fun, not following the book and that. More enjoying yourself." (Themes 7 and 1)

"I didn't not like anything really. I got something out of it for sure, like finding out more ways to cope with problems and calm down and stuff." (Theme 3)

"Sometimes it was boring, some weeks it was good, some not so good. It's set out good but I don't know…probably have more activities, more practical activities. I probably just learnt a couple of different things." (Theme 1)

"It was during sport, I was pretty angry about that because I look forward to sport on Thursdays. I didn't get to go with my friends (in the RAP group). Make it less serious, a bit more fun. See what everybody likes and then do something like that. I got something out of it. I can use it if I'm in one of those situations then I know what to do." (Theme 1)

**Summary**

The combination of the quantitative and qualitative methods to analyse the student evaluation proved to be a rich source of information, indicating some variation in both attitudes to the RAP sessions and perceived program benefits. It is noteworthy that approximately half the students reported a range of improved coping skills that they attributed to program participation. While there were many areas of agreement in program evaluation, there was some evidence of gender-related differences in examples of program benefits cited by the students.

# CHAPTER 7

## DISCUSSION

This study investigated the effects of the Resourceful Adolescent Program on symptoms of depression in a universal sample of 13–15 year old adolescents at post-test and six-month follow-up, relative to a non-intervention control group. An examination to determine the relative efficacy of the program for boys and girls was conducted. Group leader effects were analysed to investigate whether teachers and mental health professionals were equally effective in facilitating the program. The students' perceptions of the usefulness and acceptability of the program was examined using a combination of quantitative and qualitative methods in order to determine whether program impacts were broader than effects evident from self-report measures.

The study found a small prevention effect on the combined measures of depression and hopelessness for the intervention group at post-test and while this effect was evident at six-month follow-up for girls, the effects were not maintained at follow-up for boys. These results are significant in suggesting the potential for effectiveness approaches to universal prevention interventions. This study is the first effectiveness trial to show any evidence, however small, of program effectiveness. Prior to this study, an efficacy trial conducted by Shochet et al., (2001*)* is the only study to date to have reported a significant prevention effect in a universal approach. Clarke et al. (1993) found no prevention effect in a universal school-based trial involving similar aged adolescents.

An examination of the effectiveness of teachers as group leaders comparative to mental health trained professionals indicated that there were no significant differences in either student outcome or students' appreciation of the leader based on occupation.

The quantitative data provided qualified support in terms of student appreciation and perceived usefulness of the program. The qualitative data provided a rich source of additional information and allowed for more accurate interpretation of the quantitative evaluation.

The outcome research literature distinguishes between effectiveness and efficacy studies. Effectiveness studies such as the current study evaluate outcomes under real world conditions. It is well known that while effectiveness trials give a more accurate picture of the likelihood of the success of the intervention in the real world, they also present numerous methodological challenges (Wells, 1999). The following discussion will highlight the significant impact of this approach on the current trial. The recruitment rate (over 98%) and high retention rate is a particular strength of this study and provides support for the choice of a universal as opposed to an indicated prevention intervention. Considering that Jaycox et al.'s (1994) indicated intervention recruited 19% of the potential sample to the intervention group and 13% to the control group and the recruitment rate for Clark et al. (1995) was approximately 30%, the recruitment rate for the current study is very encouraging. The outcome data will be discussed in light of the small effects and the recruitment rate to determine the overall reach of a universal prevention approach.

This chapter will discuss the results in relation to the research questions. Issues pertaining to effectiveness or "real world" prevention research will be highlighted throughout this chapter. Suggestions for maximizing success in conducting school-based effectiveness trials emanating from the experience of this study will be discussed, methodological limitations of this study will be reviewed and issues of heuristic value will be identified.

## 7.1. Program Outcomes

The following section examines program outcomes on the depression measures and on the quantitative and qualitative student evaluation of the program.

### 7.1.1 Depressive Symptoms

The intervention group reported fewer depressive symptoms relative to the control group at post-test, although the intervention effect for the group as a whole was small. This effect was not maintained at follow-up for the whole group. There was however, an intervention effect for girls at post-test and at follow-up. The Effect Size (ES) in the current study was small, using BESD conversion explained in Chapter 5. An ES of 0.3 translates into a 15% differential success rate of intervention over control at post-test for the whole group.

There was evidence of a differential gender response to the program in favour of girls. The outcome for the whole group at post-test was largely accounted for by the girls with an ES of just over 0.4, which suggests that on average approximately 20% of the females demonstrate program benefits attributable to RAP relative to the control females. There was no intervention effect at post-test for males on the combined DVs, however there was a small intervention effect for males on the CDI alone with an ES of 0.2 with an estimated differential success rate of 10% for males in the RAP group relative to controls.

Follow-up results clearly demonstrate the efficacy of the program for girls showing an intervention effect for the RAP group with an ES of 0.35 suggesting a differential success rate of intervention versus control estimated between 15% and 20%. In this study, the results on the depression and hopelessness measures for boys were marginal at best and only half as effective as they were for the girls.

Considering these results, one could question the justification for this prevention approach. A section of the prevention literature oriented towards a public health approach provides support for this intervention. Reviewers in prevention research have argued that a population-based approach with a limited effect will reduce far more disorders than a highly effective targeted approach (Brown & Liao, 1999, p. 679; Rose, 1992, p. 74). This argument is based on the fact that where risk is widely diffused through the whole population, as with depressive symptoms in adolescence, "a large number of people exposed to a small risk may generate more cases than a small number exposed to a high risk" (Rose, 1992, p. 240). By way of illustration, Rose (1992) quotes figures to indicate that a 5% reduction in blood pressure across the population will reduce the stroke rate 30% compared to a 15% reduction if every case of hypertension were detected and treated. He suggests that similar argument could be made for the reduction of depressive symptoms arguing that even "a touch of depression" may be mildly concerning for the affected individual, it is "bad news for the community" in terms of the ultimate burden of disease (p. 27).

Abrams, Orleans, Niaura et al. (1996) provide further justification for the intervention, arguing that comparing the outcome of population-based prevention studies and clinical treatment is difficult. These authors suggest that evaluating impact provides a useful means of comparing interventions.

Abrams, Orleans, Niaura et al. (1996) define 'impact' as treatment efficacy x population reach (penetration) x 10, (10 [ExR]) giving a range of impact from 0 (no impact) – 10 (perfect impact). Following Abrams et al. (1996) the intervention in the current study with a small effect reaching over 95% of the population will have a much higher impact than a clinical intervention with a high effect but reaching, for example, 5% of population. Applying this scale of impact to the outcome of the current trial for

the girls with an effect size of 0.35 at follow-up would be (.35 x .98) x 10 or approximately 3.3 on the 10 point scale. To achieve a similar impact with a recruitment rate of 48% found in the best indicated trials, an effect size of about 0.73 would be needed. This result has been achieved in some indicated trials, especially for behavioural disorders, however it would be ambitious in the light of a recent meta-analytic review of indicated interventions (Durlak & Wells, 1997b).

The outcomes of this study are consistent in part with Shochet et al. (2001), although the latter study found a prevention effect at post-test and follow-up for the group as a whole and the effect size was larger. One potential explanation for the current program's findings that the prevention effect was not maintained for the whole group at follow-up could be due to the fact that invariably effect size is smaller for effectiveness than for efficacy trials across the child and adolescent mental health literature.

While the content was identical to Shochet et al. (2001), the process differed from that of Shochet et al., (2001). The latter study conducted the intervention over 11 sessions, while the current study doubled the session length and reduced the number of sessions, meeting on five occasions. Thus, Shochet et al., (2001) met over 11 weeks and the current study met over 5 weeks, reducing practice and processing opportunities.

Further, it is possible that the difference may relate to the use of external resources (group leader, program coordinator) in the Shochet et al. study while in the current study at least 50% of the leader resources were internal to the school. In addition, the number of schools involved in the current study was much larger, requiring dependence on significantly greater numbers of school-based leaders and program coordinators. Issues such as the currency of the internal leaders with the students, the capacity of the internal leaders to use supervision and the priorities of the internal leaders will be discussed further in the section of this chapter on group leaders.

The Clarke et al. (1993) study was very similar to the current study in that it was a universal, school-based intervention with a similar aged cohort, however the results of the current study differ in that Clarke et al. (1993) found no significant effects at post-test. It is noteworthy that while the nature of the content differed from that of the current study, Clarke et al. (1993) was a brief intervention consisting of three two-hour sessions raising the question of the relative importance of the number of group meetings.

Previous research into selective and indicated approaches also merits consideration. The Jaycox et al. (1994) indicated intervention reported better outcomes for the intervention group at both post-test and follow-up. While these results were very encouraging, the low recruitment rate was one of the issues considered in selecting a universal rather than an indicated approach for the current study.

Clarke et al. (1995) also conducted an indicated trial with adolescents of similar age to those in the current study. This study also produced encouraging results in terms of depressive symptoms at post-test and follow-up for the intervention group relative to the control group. A selective intervention (Clarke et al., 2001) aimed at preventing depression in children of previously or currently depressed parents reported significant advantages for the intervention group relative to the control group at 15-month follow-up. However, recruitment and retention rate issues and the sensitivity of adolescents to being seen as different from their peers possibly leading to stigmatisation, are recurring issues for indicated and selective interventions and were a consideration in selecting a universal approach for the current study.

The literature clearly provides evidence supporting the contention that depression is a major health problem in the adolescent age group (Cicchetti & Toth, 1998; Oldenhinkel, Wittchen & Schuster, 1999; Reinherz, 2000) potentially disrupting normal adolescent development, with pervasive effects across multiple domains of a young

person's life. Recent studies by Fombone et al. (2001a, 2001b) confirm that for at least a percentage of young people, mental health problems continue in adulthood. There are very cogent reasons for exploring ways to prevent or intervene early to ameliorate the impact of depression for young people.

The prevention studies referred to above highlight the question of the relative merits of universal, selective and indicated approaches to prevention. While there is considerable support for the universal or population health approach to preventing general health and mental health problems (WHO, Jakarta Declaration, 1997; Commonwealth of Australia, 2000), the difficulties inherent in obtaining sound scientific evidence using this approach are acknowledged (Marmont, 1999; Lindholm & Rosen 2000).

Offord et al. (1998), in discussing ways to lower the burden of suffering from child psychiatric disorders, outline advantages and disadvantages across the different approaches to prevention. These authors endorse lack of labelling or stigmatisation as an advantage of a universal approach but note that difficulty in detecting an overall effect is a disadvantage of this approach. Consideration of the advantages and disadvantages of selected and indicated and universal approaches provides a basis for determining the potential appropriateness of a particular approach. Offord et al. (1998) conclude that a mix of approaches is needed.

Clearly, a number of factors need to be considered when determining the most appropriate prevention approach to be used in a given context. In the case of the current study, the imperative was to provide a cost-effective intervention for a large group of young people without fear of stigma and to cast a wide net. Thus, it was determined that the advantages of the universal approach outweighed the possible disadvantages of this approach.

The health promotion significance of the current study indicated that girls who were in the "healthy" category (Level 1) at pre-test were more likely than girls in the control group to remain in the Level 1 group at post-test. There was a trend in this direction at follow-up, however significance was not maintained. The outcome suggests that the intervention did assist in preventing the girls in the "healthy" experimental group from increasing levels of depressive symptoms relative to the same cohort in the control group. Although this outcome is modest, as noted above, Rose (1992) provides support for the public health benefits of small changes in the level of depressive symptoms.

Further, as has been noted previously, depressive symptoms not reaching criteria for a depressive disorder can have a deleterious impact on children and adolescents (Gotlieb et al., 1995). Mild forms of depression can predispose a young person to more serious forms of the disorder (Harrington and Clark, 1998). Elevated depressive scores in adolescence have been found to be predictive of psychological maladjustment in adulthood, particularly for women (Gjerde and Westenberg, 1998).

Depressed adolescents are more likely than nondepressed adolescents to have poorer psychosocial functioning (Lewinsohn et al., 1998), poor academic performance, physical ill health, substance abuse and increased prevalence of self-harming and suicidal behaviour (Birmaher et al., 1996). Depressed adolescents are later in life less likely to complete tertiary education and more likely to experience negative life events than those who did not suffer adolescent depression (Lewinsohn & Clarke, 1999). Thus, an intervention preventing an increase in depressive symptoms by assisting those who are well to remain well is worthwhile not only for individuals but also for communities.

### 7.1.2. Adolescents' Quantitative Program Evaluation

There was considerable variation in the student's perception of the usefulness and appreciation of the program at post-intervention, although this was not attributable to gender. In terms of the overall rating of the program, 44% of the students rated the program as "excellent" or "very good", with a further 40.5% rating the program as "quite good".

Three questions probed for how commonly the students discussed the sessions with friends not in the group, others in the group or parents. Consistent with the developmental stage of adolescence where the primacy of the peer group is apparent (Santrock, 2001), approximately 70% discussed the program with friends who were not in their group either "always", "most times" or "sometimes". Approximately 64% discussed the program with others who were in their group while only 40% discussed the program with their parents. The fact that there was no gender difference in the frequency of conversations suggests that the program may have provided the boys with an opportunity to engage in a different kind of conversation, more consistent with Tannen's (1990) rapport talk rather than report talk more commonly used by males.

Although fewer students discussed the program with their parents than with peers, nonetheless a significant number of students did discuss the program with their parents. The literature provides a convincing argument for the importance of both attachment to family and the development of autonomy for successful adaptation in adolescence (Santrock, 2001; Cooper, Shaver & Collins, 1998). Providing adolescents with an opportunity to discuss issues relating to the program with their parents may be one means of promoting continuing connectedness to family while the adolescent continues to push for more independence.

The students' rating of the leaders was one of the most highly endorsed items with over 80% of the respondents rating the leaders as either "very good" or "excellent". The importance of the leaders' role has been noted above. The adolescent students' regard for the leader and their perception of the leader's competence is particularly pertinent to the student's interest and cooperation with a group program.

As noted previously, students identified a range of positive coping skills that increased as a result of the program including: enhanced confidence and a more positive outlook, coping better with disagreements and arguments and coping more effectively with stress. The literature confirms that a range of positive coping skills contribute to good mental health and are protective against depression. Lewinsohn et al. (1994) contend that the development of optimism and nondepressotypic attributions are protective. Constructive peer and family relationships are also considered protective (Baker, Milich & Manolis, 1996; Garmesy, 1993; Lerner & Galambos, 1998).

Hakim-Larson and Essau (1999) state that emotional regulation during meaningful social interactions is important to effective coping. "Adolescents who cannot effectively regulate their affect and make gains in autonomy while communicating with significant others have been found to be more prone to depressive symptoms" (Hakim-Larson & Essau, 1999, p. 325).

A noteworthy aspect of the students' evaluation concerns the students' perceptions of gains from the program, namely increased confidence and competence in a range of coping skills, that are not captured in the depression outcome measures. Thus, the question of how to adequately measure the changes that the students attribute to the program remains unanswered and requires further investigation.

### 7.1.3. Adolescents' Qualitative Program Evaluation

There is an emerging consensus on the value of combining quantitative and qualitative research in mental health (Graham, 2000; Buston et al., 1998; Smith, 1996). Qualitative research can provide a rich insight into the participants' perceptions of the topic being investigated (Smith, 1996). Certainly, the qualitative evaluation conducted in the current study provided a valuable means of elucidating the quantitative outcome data providing convergent support for the outcomes on the self-report measures.

The interviews conducted three months post-intervention yielded a wealth of information, allowing for a more accurate understanding of the students' perceptions of the program. There was some variability in perceptions of the benefits of the program, with approximately 16% and 25% of students respectively either seeing no benefit or unable to articulate program benefits, yet over 50% of students interviewed detailed specific examples of ways in which the students had used the skills gained during the program.

The aspects of the program most commonly recalled by the adolescents related to self-esteem and self-confidence followed by problem solving. Managing relationships and coping with emotions were also mentioned.

A particularly informative aspect of the interview data is the many and varied examples cited by the students as benefits derived from the program. The transcripts, often somewhat poignantly, indicate that students attribute a range of improved coping skills to the program. Students cited examples including the following themes: managing emotions, relationships and stress; recognising others' perspectives; problem solving; cognitive restructuring; and improved decision making. As noted in a previous section, there is evidence to support positive coping skills assist in protecting against depression (Herman-Stahl, 1996; Petersen, Leffert et al., 1997; Resnick, Bearman et al., 1997).

The qualitative data provides additional evidence of the program's value, not only in terms of the depression outcome measures, but also in terms of acquisition of a range of skills nominated by the students. However, as noted above, finding quantitative measures that adequately reflect changes noted by the students is difficult.

There was some evidence of gender related differences in the examples of program benefits cited by the students. Consistent with the literature on girls' emphasis on intimacy and relationships (Gilligan, 1996; Tannen, 1990), girls more commonly described benefits around managing interpersonal relationships. As noted above in the section on gender, boys appear to be more likely than girls to become aggressive (Tavris & Wade, 1994) thus it is not surprising that managing anger may be more of a priority for boys than other interpersonal skills.

Clearly, there is a need to be mindful of stereotyping socioemotional gender differences. Gilligan's critic Maccoby (1998) suggests the differences between males and females in intimacy and connectedness are exaggerated. Levant (1995) in his discussion on masculinity seems to support Gilligan's position in discussing the need for men to be more emotionally aware, particularly regarding relationships. Thus, while socioemotional gender differences were evident in the current study, it is important to note that there was also evidence of boys benefiting from the relational aspects of the program.

In response to the question requesting suggestions for improving the program, a number of students suggested that the program should include more physical activities such as games and role-plays. The inclusion of more physical activities, particularly when RAP is conducted over a double school period (that is, approximately one and a half hours) should be considered, as it is consistent with the developmental and learning needs of middle adolescents.

## 7.2 Gender Response

As anticipated from the literature, boys recorded lower depression scores than girls at pre-test. As noted previously, the outcome data suggest that the program was consistently more effective for girls. The efficacy of the program for boys remains problematical. The outcome data alone suggest very limited efficacy, however the student process evaluation clearly demonstrates that boys appreciated the program and reported attributing an increased repertoire of coping skills to RAP. The question of the sensitivity of the internalising measures to the program effects for boys is one issue. A second issue is the manner in which the boys conceptualize and label internal affective states.

The question is raised as to whether girls and boys perceive or articulate internalising states differently. It is of interest that the boys more commonly than the girls related examples of managing anger more effectively following the program. It may be that there is a gender difference in the impact, or the perception of the impact, of the program on affect regulation. It is possible that boys may find the program assists with externalising problems such as anger management while girls may be more likely to recognise more internalising and relational benefits. It is of interest that a higher percentage of boys than girls endorsed the program as beneficial, but were unable to articulate specific examples of ways in which they had used the skills acquired from RAP.

The literature on influences on socioemotional gender differences is particularly relevant to the current discussion. Cultural environment is thought to play a significant role. Researchers have observed that Western cultures, particularly the United States, promote independence and autonomy in men and interdependence and relatedness in women (Cross & Madson, 1997; Maccoby, 1990).

Cross and Madson (1997) mount a persuasive argument that self-construal, that is, the way one makes sense of the self, differs for men and women in the United States. These authors suggest, that on the whole, men are thought to construct and maintain an independent self-construal whereas women are thought to construct and maintain an interdependent self-construal. Self-construal, according to these authors, is shaped by participation in society and has a pervasive effect influencing cognition, information processing, self-esteem, emotions and relationships.

Gender difference in self-construal or self-conception is evident in children and adolescents. McGuire and McGuire (1982) found that in a group of children aged 7–17, the self-conceptions of boys and girls differed with girls' self-conceptions being more social, with more references to significant others than boys, while boys included more references to people in general than girls. Similarly, Gilligan (1996) and Tannen (1990) suggest that girls are more relationship-oriented than are boys.

Tannen (1990) provides a possible explanation for the differences found by McGuire and McGuire (1982), suggesting that boys and girls are socialized differently. There are differences in the way boys and girls are spoken to by adults and speak with each other. Consequently there are gender differences in talk. Tannen (1990) distinguishes between **rapport talk,** that is the language of conversation, establishing connections and negotiating relationships, and **report talk,** that basically passes on information. The contention is that males commonly use report talk, telling stories or jokes or giving information. Females, on the other hand, demonstrate a preference for private rapport talk and conversation that is relationship-oriented (Santrock ,2001, p.335).

The fact that boys grow up in what Tannen (1990) refers to as "different worlds of talk" may influence the boys' capacity to label and articulate more relationship-based

concepts and emotions. This may have been reflected in the boys' response to the program. The question arises as to whether boys benefit from exposure to the less familiar rapport talk which is the language of RAP, or would a more graduated introduction to rapport talk be beneficial; that is does the language of the program need adjusting for boys? The fact that at least a percentage of the boys recognized the program as beneficial but were unable to articulate specific examples of usefulness, raises speculation as to whether boys may have a more limited affective vocabulary as a consequence of their socialisation. If this were the case, there may be a case for making some changes to the program for boys

Gender differences exist in sensitivity to emotion and the display of emotions (Cross & Madson, 1997; Anderson & Leaper, 1996). Cross and Madson (1997) argue that interdependent self-construal is closely linked to sensitivity to emotion. These authors contend that girls are socialised to be more attuned to emotions than boys, thus learning the importance of emotions in relationships from an early age. Boys and men are less likely to disclose feelings about a range of issues including sadness, fear or friendships or relationships. Cross and Madson (1997) argue that for individuals with independent self-construals, self-esteem is based on feelings of autonomy and self-reliance, making emotional expression more difficult.

Tavris and Wade (1984) assert that males are more likely to express anger towards strangers, particularly other males, and are more likely to become aggressive than females. Lind, Huo and Tyler (1994) found that US women were more likely to support use of mediation to resolve difficulties, whereas men were more likely to support strategies that involved pressure or dominance.

Evidence suggests that females are more likely than males to discuss and express emotions relating to interpersonal relationships (Saarni, 1988). This assertion correlates

well with the gender difference in the students' reports of specific uses of skills developed through exposure to RAP. Clearly, in considering socioemotional gender differences, the context is important (Santrock, 2001).

Undoubtedly, socialisation does influence socioemotional development. There is evidence to support the contention that boys and girls are socialized differently and that gender differences in self-construal are evident in children and adolescents. The style and content of the program, particularly the emphasis on managing relationships effectively, is familiar to the girls and was clearly beneficial. Boys were more likely to respond to aspects of the program that were more familiar, such as anger management. The question of whether changes to the program would increase the efficacy for boys warrants further research.

## 7.3. Group Leader Effects

A primary focus of this study was to determine whether teachers and mental health professionals were equally effective as group leaders. There was no significant difference for leader's occupation (teacher versus mental health professional) either in terms of student outcome or students' perception and appreciation of the leaders. This finding is of particular importance as one of the salient issues in prevention research is sustainability in the real world. As has been noted in previous chapters, schools are fluid environments subject to repeated timetable changes and interruptions to daily routine. Additionally, availability and competence of staff is a crucial issue for all school-based activities, thus the need to evaluate "effectiveness" as opposed to efficacy of RAP to determine the likelihood of sustainability.

In the efficacy study conducted by Shochet et al. (2001), all the group leaders were external to the school and all had psychology training. Clearly, this provided a more uniform group of leaders who were new to the school environment and whose role

in the school was clearly defined. These leaders were familiar with the concept of supervision. The major disadvantage of providing all external leaders is that it is highly unlikely to be sustainable.

Group leaders participating in the current study were local mental health professionals or teachers who volunteered to participate, consequently the trial was relatively inexpensive and could be declared sustainable as a prevention approach within the Australian school system.

The dilution of the effects of this trial compared to the initial efficacy trial (Shochet et al., 2001) is not unexpected and it is encouraging that some sustained effects were still found. The student evaluation confirms that the students appreciated the leaders, both internal and external, however there is no evidence of whether the external leaders' novel status had any impact. Similarly, the teachers had a variety of responsibilities within the school therefore it is possible that the addition of another responsibility, although freely undertaken, was stressful for the internal leaders. Further, the concept of supervision in this context was not familiar to the teachers, thus it is possible that the external leaders were better able to make use of the supervision than the internal leaders.

The findings of the current study relating to the leaders' occupational background have potential implications for enhancing program sustainability. It should be noted however, that the teachers in the current study may not be representative of all teachers, being a self-selected sample. The trial was conducted in Catholic High Schools and the teachers were all volunteers and thus were committed to the philosophy of the program.

## 7.4. Maximising effectiveness

Clearly, while outcome on the dependent variables alone is equivocal, when considered in conjunction with the students' quantitative and qualitative evaluation, there may be some potential for a population approach to prevention with adolescents. Turning attention to improving research within communities such as schools may improve effectiveness. What is presented below comes from anecdotal experience in schools.

Effectiveness trials are methodologically challenging however they have a legitimate place in mental health outcome research (Offord et al., 1998; Wells, 1999). A number of the limitations referred to above relate to the lack of researcher control that is part of "real world" research. A review of this trial suggests four factors that may influence the outcome of school-based prevention effectiveness trials: clear and accurate communication; support within and outside the school; leader selection and training; and program organization and structure.

Clear and accurate communication requires that prior to the commencement of the program, school staff, parents and students are introduced to the program and have realistic expectations of the program. In the current trial this was facilitated by providing easy and ongoing access to information about the program relevant to the school staff, parents and adolescents.

Experience suggests that to maximize the potential for success, a school-based program requires the support of the school administration and teaching staff including those not directly involved in the program. Programs such as RAP result in disruptions to normal school routine, thus the support of all staff is necessary. The schools in the current trial were encouraged by the support of local mental health services. The school administrators at each of the intervention schools commented positively on the value of

the collaboration between mental health and education. Arrangements to provide timely assessment and follow-up if concerns about particular students arose were crucial to student care and school support.

The outcome of this trial suggests that allowing leaders, particularly school-based leaders, to volunteer, may assist in the development of positive relationships with the adolescents, thus potentially influencing program outcome. Clearly, providing adequate training for all leaders in the program is essential. One training issue that became apparent during the trial was that in addition to training directly relevant to the program, internal and external leaders might have additional differing training needs. For example, non-school-based leaders may require additional training regarding school policies while school-based leaders may benefit from additional training regarding supervision and more health-based issues.

Organizational issues including program coordination, organization of resources, plans to cover unexpected leader absence, timetabling and allocation of appropriate meeting spaces proved crucial to program delivery. The unpredictable nature of effectiveness trials, particularly school-based trials, requires that researchers anticipate and plan for disruptions to the program.

The adolescents' qualitative evaluation provided constructive suggestions regarding program structure and placement within the school curriculum (see Table 6.6). The majority of adolescents who were interviewed particularly liked the physical activities, that is, games, role-plays and "fun activities" and strongly suggested increasing the number of these activities. The addition of more physical activities would not jeopardize program integrity and could potentially increase program acceptability.

Conducting the program during school hours ensures maximum participation, however a number of students, particularly the boys, were unhappy about the fact that in

one school sessions were held during sport time. Consideration of program placement within the school curriculum is important in terms of acceptability of the program to the adolescents.

## 7.5. Limitations and suggestions for future research

There are a number of limitations intrinsic to "real world" research evident in this study such as lack of randomization and limited measures of program fidelity. Difficulties in conducting randomised controlled trials in population-based studies are documented (Commonwealth Department of Health and Aged Care, 2000) and while the current trial was controlled, real world constraints precluded randomization. Schools were willing to participate but a condition of participation was a clear outline of the time commitment to enable effective curriculum planning. Time and school constraints did not allow for recruitment of all schools prior to allocation to intervention or control condition.

Group leader compliance in completing integrity checks was problematic. Leaders were committed to the group process but were reluctant to complete the checks and insisting would have strained cooperation. While regular verbal checks were conducted during post-group supervision, the lack of completed written integrity checks limited the capacity to examine adherence to the program.

Use of self-report measures and the potential problem of common method variance is another limitation of the study. Despite the fact that self-report measures are argued to be reliable and valid tools for measuring adolescent depression (Reynolds, 1994) and multiple measures were used to overcome the error associated with the using a single measure, it would have been preferable to obtain convergent information from significant others such as parents, teachers and peers.

The relatively short-term follow-up is another limitation of this study. Clearly a longer-term follow-up would be an important part of future research. Research suggests that a percentage of adolescents experience a recrudescence of their symptoms (Birmaher et al., 2000). Additionally, evidence in one indicated trial (Gillham & Reivich, 1999) of symptom improvement post-intervention and at twelve months was not maintained at 36 months, thus it would seem that the effectiveness of prevention approaches such as RAP may be improved by adding booster sessions in subsequent school grades. Future research could be useful in determining the content, timing and duration of booster sessions to maximize program benefits.

There has been an emphasis in the literature on trying to understand the pathways to depression particularly for girls and women (Nolen-Hoeksema, 1994; Wichstrom, 1999; Cyranowski et al. 2000) and while a number of theories exist, there is no conclusive evidence confirming different pathways to depression for girls and boys. Given the differential gender response to the current program, further exploration of the impact of a program emphasis on strategies for successfully managing interpersonal conflict for girls and greater emphasis on anger management for boys in preventing depression could provide useful information.

The sustainability of school-based programs may be enhanced if it were possible to determine the optimal number of sessions, length of sessions, and essential content of prevention programs. Some schools have expressed interest in alternative forms of delivery of RAP such as 2-day camps, a combination of a number of single sessions and longer sessions both within and outside the school. If research confirmed the effectiveness of a range of delivery options and identified the most salient program content, school uptake of prevention programs such as RAP may be increased.

## Conclusion

The numerous challenges that presented during the course of this effectiveness trial have been documented throughout this and preceding chapters. Challenges and limitations notwithstanding, this effectiveness trial provides an important indication of the potential benefit of the program if it were to be more widely disseminated in schools. This study would suggest that a universal school-based approach to the prevention of adolescent depression could potentially be effective and sustainable. Furthermore, even a small change in the level of depressive symptoms in adolescents could constitute a public health benefit, given a pragmatic population-based approach to prevention of adolescent depression.

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# APPENDICES

# APPENDIX 1: ETHICS APPROVAL

# APPENDIX 2: PERMISSION FORMS

# APPENDIX 3: EVALUATION QUESTIONNAIRE

# APPENDIX 4: INTERVIEW TRANSCRIPTS

## School A - 3 month interviews

**INTERVIEW 1 (ID 1):**

**What do you remember that the RAP program was about?**
There was a book that we did, we did work in it and then we had a break half way through it. Self-esteem and how we react to things, school fights and everything.

**What aspects did you like most about the program?**
Talking in groups.

**Can you give me specific examples of when you have used skills from the RAP program?**
When you have fights, listen to the person. Before jumping to conclusions. There was a situation where I found out my best friend was lying to me. I heard it off someone and then she told me she went to see her cousin in hospital and then I saw her walking around the whole school when I got to school in the morning and I just got really upset and I told myself to calm down. Before I would have yelled at her, starting screaming, probably start crying and won't talk to anyone for a while.

**Have any other people around you (teachers, family, friends) noticed any changes in you since you did the program?**
Yeah, I think, one of my best friends.

**What suggestions would you have for improving the program?**
Nothing.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Very useful. Well, you learn a bit more and you could actually explain things about what happened after the other one (RAP program). Include self-esteem and how to handle things.

**INTERVIEW 2 (ID 40):**

**What do you remember that the RAP program was about?**
They taught us about feelings and peer pressure and just what to say yes and no to. How to control ourselves.

**What aspects did you like most about the program?**
The book work was alright. The group discussions and the videos were the best.

**Can you give me specific examples of when you have used skills from the RAP program?**
We sort of learned how to stick up for ourselves and that's been helping a lot of us because we are learning how to stand up for ourselves and not take anything from anyone that we shouldn't. I was in a fight a while ago and I was really upset but my friends kept on telling me it would be alright and I felt good about my self, because they were there for me. Normally I like to argue so I might have done something drastic.

**Have any other people around you (teachers, family, friends) noticed any changes in you since you did the program?**
My friends have been saying I'm happier because I'm normally a grumpy person. Just after it, I sort of got a bit happier. I started to think about what it was about.

**What suggestions would you have for improving the program?**
With the book work - well there should be more movies because everyone seemed to enjoy the little videos. They were fun but the book work, some of the things were a bit weird. Some people couldn't understand them.

**How useful do you feel a booster program would be? Suggestions for content and format?**
It depends how you took it in the first one. With the surveys that we did, a lot of people just did them for fun, they didn't think about what they were writing. I suppose it would be pretty good because a lot of people have forgotten about the program and what it was about so if they did a follow-up it would be good because then you'd be remembering. I think (include) self-esteem - that would be the big one because when you get to year nine you are studying, there are a lot of fights, guys - so a lot of people are feeling down. So I think self-esteem. You've got your big exams in year ten - so how to control that - a lot of people don't eat and don't sleep and everything, so maybe something to help us with that, how to control it. Maybe a period would be alright, if it was half day some people would think it's just to get out of class. If it was just one period people might go and actually pay attention. One period over a few weeks.

**INTERVIEW 3 (ID 77):**
**What do you remember that the RAP program was about?**
Just getting up high self-esteem, and dealing with problems we have.

**What aspects did you like most about the program?**
I can't remember. I didn't really like it that much. I just didn't find it interesting.

**Can you give me specific examples of when you have used skills from the RAP program?**
Just trying to stay calm, when you having fights. Just when I was having a fight with someone and I let go of it and say "okay".

**What suggestions would you have for improving the program?**
Fun activities.

**How useful do you feel a booster program would be? Suggestions for content and format?**
I don't know. All my friends didn't really enjoy it. Maybe self-esteem would be good.

**INTERVIEW 4 (ID 68):**
**What do you remember that the RAP program was about?**
A group of students talking about their friendship and how they can build their self-esteem.

**What aspects did you like most about the program?**
The group work - that was good, and some of the activities - the door thing (elastic and

candle).

**Can you give me specific examples of when you have used skills from the RAP program?**
No. Oh.. before the program, like with my sister… well it didn't really change me.

**What suggestions would you have for improving the program?**
More activities where people work together and believe in each other like, "you can do that"… stuff like that.

**How useful do you feel a booster program would be? Suggestions for content and format?**
I don't know. Maybe to other students, yes, but….it would, if you kept doing it, it would sink into their brain. The area of being calm and not having so much friendship fights (would be helpful), like if there's a fight, don't fuss about it. Because, now, our group is fighting and they just fight over anything and people should learn that friendship is more important than fighting over something stupid. Maybe also the way that you look - that beauty isn't everything.

**INTERVIEW 5 (ID 49):**
**What do you remember that the RAP program was about?**
Our adolescence and all that. Yeah, how you treat your friends and all that. I have a bad memory!!

**What aspects did you like most about the program?**
You weren't embarrassed to tell them - it was like you were talking to a counsellor. You could express your feelings.

**Can you give me specific examples of when you have used skills from the RAP program?**
Yeah, in friendship fights. Like, we've got a big group and everyone is trying to go on sides and you're stuck in the middle, you don't know which side to take. I just stay in the middle. We are trying to decide something for camp and we have say, 14 in our group and you're only allowed to have 10 so every time it comes to camp, we always have a big fight.

**What suggestions would you have for improving the program?**
Not really. I liked it.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Alright. I don't know if it will be useful for everyone, it just depends. The self-esteem would be good. Maybe about drugs and all that. Stay in small groups and go for a few weeks to get used to the idea.

**INTERVIEW 6 (ID 20):**

**What do you remember that the RAP program was about?**
I thought that it was about opening up and sharing everything in the group.

**What aspects did you like most about the program?**
Having the party at the end.

**Can you give me specific examples of when you have used skills from the RAP program?**
No… sorry!

**What suggestions would you have for improving the program?**
I wouldn't have a clue. I don't know.

**How useful do you feel a booster program would be? Suggestions for content and format?**
So another one this year? Yeah because it's good for some people. Other people don't need it.

**INTERVIEW 7 (ID 39):**

**What do you remember that the RAP program was about?**
It was about self-esteem and it just helps you. Like if you have any problems, who you can turn to, who you can trust and about your friends and family and stuff like that.

**What aspects did you like most about the program?**
I liked the class discussion. People didn't feel like down, everyone just joined in together and had a say in everything.

**Can you give me specific examples of when you have used skills from the RAP program?**
I can remember in an argument with my friends and stuff like that and then when we go to the RAP thing, you shouldn't scream or anything, just calm yourself down a bit and talk it through. Now with our friends, yeah, you can use it. It's alright, it's not hard or anything and you can use it.

**Have any other people around you (teachers, family, friends) noticed any changes in you since you did the program?**
Not really

**What suggestions would you have for improving the program?**
Not sure.

**How useful do you feel a booster program would be? Suggestions for content and format?**
I don't know. I wouldn't mind doing it but I know some people that didn't like it. I liked to meditate, it helps you to relax and stuff. I liked the small groups, you just get to know everyone. If you are with your friends, you probably just muck around and stuff. But because we were put into little groups you just get to know other people from your year and stuff.

**INTERVIEW 8 (ID 10):**

**What do you remember that the RAP program was about?**
It was about self-esteem and how we should forget all the bad stuff and look at the good stuff.

**What aspects did you like most about the program?**
The meditation. I liked it, it was relaxing.

**Can you give me specific examples of when you have used skills from the RAP program?**
Yeah I try to get someone else's point of view and work it out. Just arguing about something and I think it out. Before I would have just kept my opinion and walked away.

**Have any other people around you (teachers, family, friends) noticed any changes in you since you did the program?**
Not sure.

**What suggestions would you have for improving the program?**
It sort of got boring, but it was alright. Because it was the same thing all the time.

**How useful do you feel a booster program would be? Suggestions for content and format?**
I don't know because a lot of people said that they didn't like this program. It was alright but it gets boring. I don't know about the new program. (It would be helpful) about when you have to think second thoughts. Have larger groups because you hear from the same people over and over again.

**INTERVIEW 9 (ID 59):**

**What do you remember that the RAP program was about?**
Self-esteem and the way you deal with your problems and the way to improve the way you deal with your problems.

**What aspects did you like most about the program?**
Some lessons were a bit boring, others were alright if you got on a good topic, that everyone was interested in.

**Can you give me specific examples of when you have used skills from the RAP program?**
Not really. I haven't really been faced with any big issues since the RAP program.

**What suggestions would you have for improving the program?**
Maybe instead of just talking and stuff there could be games, just to make everyone involved. Lots of people just sit there. They don't want to participate. But if you get everyone involved it could be better.

**How useful do you feel a booster program would be? Suggestions for content and format?**
It would probably be really good because as you get older you are faced with more things and it gets harder to deal with. So I think it would be good. I think looking at a

situation from another person's point of view as well as your own (would be good). I think the self-esteem should be reinforced, because sometimes you feel not too good and it's just good to have that there. Maybe being put in different situations that you are uncomfortable with. Like ways to get out of them or to deal with them. I think it would be good if we were with our friends. You can talk about everything and you don't feel shy.

**INTERVIEW 10 (ID 97):**

**What do you remember that the RAP program was about?**

They asked you questions, like what's happening in your life or whatever and you just had to answer yes, no, maybe (questionnaires). Some of the activities with those booklets were just going over the same stuff. It was pretty good, it made you realise what's happening in your life. One topic we talked about was bullying and then we talked about, say you had a friend that was sort of dorky and you had to go out with popular friends, which one would you choose.

**What aspects did you like most about the program?**

How you didn't have to be shy about anything and you could just say whatever.

**Can you give me specific examples of when you have used skills from the RAP program?**

Homework now, the teachers are sort of throwing stuff at us all at the same time. Instead of sitting at home watching television I just get into the work and it's all done. You'd rather enjoy doing that. That's what I used to do and then just think about it.

**What suggestions would you have for improving the program?**

Make more practical activities. Instead of writing in those books, go outside or something. Make it a bit more fun. Interest the kids because they'll just lose interest.

**How useful do you feel a booster program would be? Suggestions for content and format?**

It might be useful, maybe use it on the people that are still having problems. Not on the people that are just alright. Just going over the same stuff is just a bit…..(go over) popularity again, school -how to handle it.

**INTERVIEW 11 (ID 29):**

**What do you remember that the RAP program was about?**

How you go through life, self-discipline. Pizza! That we got on the last day. How to sort through problems in every day life.

**What aspects did you like most about the program?**

Different ways of handling a problem.

**Can you give me specific examples of when you have used skills from the RAP program?**

No

**What suggestions would you have for improving the program?**

I don't know. You could have a few more problems and how to work them out. Because all the problems they have in the book, that hardly ever happens to anybody.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Yeah it would be sort of good. Because sometimes people just go "oh, not this again" but it might also be good for some people with low self-esteem and remember how to take care of problems. Some people won't even bother. (Include) problem solving, self-esteem stuff. Just life in general, all the new stuff that could be happening in your life and things like that.

**INTERVIEW 12 (ID 30):**
**What do you remember that the RAP program was about?**
They talked about self-esteem and stuff like that. That's all I remember.

**What aspects did you like most about the program?**
The bit on the self-esteem, it just boosted it up. You were comfortable talking in front of people and stuff.

**Can you give me specific examples of when you have used skills from the RAP program?**
Not really.

**What suggestions would you have for improving the program?**
Make it more fun. More activities. Sometimes you talked about the same thing the next week after it. It wasn't that much fun after you do the same thing over and over.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Very! The thing that we did this year could be different to next year's stuff and it could be more fun. Year 10 is like a big thing. Self-esteem - in year 10 you've got all the exams and stuff and you have to do big speeches in front of the class. You have to …well I hate speeches. It might help if you talk more about it and then people can learn to just be themselves and just talk. It should run for a least a week or so. Real small groups - like we had it this year. You wouldn't be really scared in front of them.

**INTERVIEW 13 (ID 69):**
**What do you remember that the RAP program was about?**
Self-esteem.

**What aspects did you like most about the program?**
Helped with some of the problems, that me and my friends had.

**Can you give me specific examples of when you have used skills from the RAP program?**
That staying calm thing has helped me a lot. My dad, he's really angry and I've got his anger. I used to go around hitting people if I got angry or bashing in the wall in my room and I used to just yell and yell. Now I listen to music.

**Have any other people around you (teachers, family, friends) noticed any changes in you since you did the program?**
My parents, since I started high school, they started to see they I was getting annoyed

with something and my friends, I stopped swearing and then something happened and I started swearing again. And now they are noticing that I'm getting help from someone. They told me that I've changed. (???)

**What suggestions would you have for improving the program?**
Maybe go on for two terms instead of one.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Yeah. You're a lot older then and you can understand more things. Keeping calm and how to solve the problem (should be included).

**INTERVIEW 14 (ID 115):**
**What do you remember that the RAP program was about?**
It was about our self-esteem and how to build it up. We had good things and bad things (risky and resourceful).

**What aspects did you like most about the program?**
We could talk about things, about our friends and that. They showed us how to deal with ourself a bit, with these blocks (bricks), what you liked about yourself. It was interesting. I've never done that stuff before, looked at that stuff.

**Can you give me specific examples of when you have used skills from the RAP program?**
I can't really remember. I always try to think about the other person's feelings. I kind of like did it before though.

**What suggestions would you have for improving the program?**
It was pretty good. We had our year co-ordinator as our teacher and we couldn't just say anything. If we were with a RAP person we would have said more. It was a bit weird.

**How useful do you feel a booster program would be? Suggestions for content and format?**
It would be a good idea. If we could do some of the stuff we did before - I can't really remember it. The size of the groups was okay. It was long … it was okay.

**INTERVIEW 15 (ID 116):**
**What do you remember that the RAP program was about?**
Self-esteem and the acceptance of others and that's probably all I can remember!

**What aspects did you like most about the program?**
We got two groups together and watched the videos and the group discussions.

**Can you give me specific examples of when you have used skills from the RAP program?**
There have been a couple and I did actually go back to what we were talking about in RAP. During the class we talked about examples and I went through the examples and it was when you had a discussion with your mum and have a bit of a disagreement and then I remember her telling me that I shouldn't jump to conclusions and things like that and actually talk it through and that's what I did. It turned out better than I expected.

I've been thinking about it more often. So okay, it worked out better so next time it happens, actually do the same thing.

**Have any other people around you (teachers, family, friends) noticed any changes in you since you did the program?**
Probably. I can kind of see it the way they act around you.

**What suggestions would you have for improving the program?**
I couldn't think of much.

**How useful do you feel a booster program would be? Suggestions for content and format?**
I think that would be an excellent idea. Maybe the people that have done it in year 9 have forgotten and just reminding them and adding a bit more detail will probably boost the knowledge. (Include) the one about respecting other people's opinions, the risky and resourceful thoughts. Have help with stressful situations, study and stuff like that. The groups that we had last time were pretty good. They weren't too big and weren't too small. You could probably be a bit more interactive. Sometimes it's hard when you don't actually know the people in the group. Not many people express themselves when there are people that they don't know. So maybe having at least one friend. Maybe at the start you could do something together to get to know each other.

**INTERVIEW 16 (ID 21):**
**What do you remember that the RAP program was about?**
I remember that it was about yourself, about self-talk and how you feel about yourself. How others feel. If they feel bad, you should see by the way they look, the way they're acting and things.

**What aspects did you like most about the program?**
It was very unique, the way it was done, it was unique. It wasn't just some talk, they explained it to you well, played those games, group games to show team work. It was very well done. I just liked the whole program itself. I think it was really good.

**Can you give me specific examples of when you have used skills from the RAP program?**
I think about how others feel more, how they're feeling. I just don't think, oh yeah I feel bad, but how that other person is feeling.

**What suggestions would you have for improving the program?**
The videos - they didn't really help. They were okay, but they were very short and they just didn't get your point through. You had to really explain it afterwards.

**How useful do you feel a booster program would be? Suggestions for content and format?**
It might help even more. It might be interesting to see how it is, what it is about. I'm interested in …. Well I don't think it's a bad thing. Go over what other's feel, the self-esteem thing, self-talk and all those things. Just differently explained. Different ways of looking at it. Friendship things, just the basic things, what teenagers go through at this age. Have a little bit bigger groups so we know how so many other people interpret stuff. At the end you should see how everyone interpreted things.

**INTERVIEW 17 (ID 78):**

**What do you remember that the RAP program was about?**
I remember it had lots to do with your network of friends, how you feel about yourself and situations that are hard to face and how to overcome them.

**What aspects did you like most about the program?**
I liked having the discussions because my group leader was really good person to talk to. Most of the people around me were understanding. It was really fun in a way.

**Can you give me specific examples of when you have used skills from the RAP program?**
Yes. There's a friendship group fight and it was because of me - they thought I was doing something wrong. Instead of going up there telling them off I just stayed low for a while. I didn't really pay attention on how they were treating me. Over time I realised that it wasn't that good. So I came up to them and I talked to them and it's all sorted out. Before I would have said a few things that I wouldn't have meant.

**What suggestions would you have for improving the program?**
The question sheets, they should be a little bit…. Not too long (questionnaires). Well there's nothing to change. It's a good program!

**How useful do you feel a booster program would be? Suggestions for content and format?**
It should be useful, because year 10 is kind of a big step. You have to go through school certificate and everything like that. People at our age, peer pressure and everything. So it should be good and useful to some people. Go over the networks, how you feel about yourself. Something to do with the bricks? I think that the program should have consisted of more outside activities as well as in-class discussions. In the in-class discussions, people were participating, but not so much. We thought that we should play a game so that everyone would be involved in it.

**INTERVIEW 18 (ID 86):**

**What do you remember that the RAP program was about?**
We did group games, we watched a couple of videos, talked about self-esteem.

**What aspects did you like most about the program?**
Games.

**Can you give me specific examples of when you have used skills from the RAP program?**
No

**What suggestions would you have for improving the program?**
Not sure

**How useful do you feel a booster program would be? Suggestions for content and format?**
It would be okay. Maybe make it more fun. Maybe more videos. Talk about if you had a bad day….

**INTERVIEW 19 (ID 96):**

**What do you remember that the RAP program was about?**
About helping us if we had any problems at home and at school.

**What aspects did you like most about the program?**
The books and the games.

**Can you give me specific examples of when you have used skills from the RAP program?**
Not really.

**What suggestions would you have for improving the program?**
Nothing much.. it was pretty okay.

**How useful do you feel a booster program would be? Suggestions for content and format?**
I don't know. It depends. It would be good if people want to keep doing it. But most of our form didn't like it, didn't like doing it.

**INTERVIEW 20 (ID 134):**

**What do you remember that the RAP program was about?**
It helped me with my self-esteem and all my confidence. Helped people get together. I met new girls that came to the school. I got closer to them.

**What aspects did you like most about the program?**
My leader was really nice. Just the talks that we had helped me heaps.

**Can you give me specific examples of when you have used skills from the RAP program?**
Not really - I haven't been in any situations

**What suggestions would you have for improving the program?**
I wouldn't make any. I was really happy with what it was.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Very. This helped me heaps and that will help me more. Go over self-esteem and confidence. I liked it all the way it was.

**INTERVIEW 21 (ID 105):**

**What do you remember that the RAP program was about?**

Improving your self-esteem. They showed you videos and stuff to help you feel better about yourself. It gave you hints that just because someone is better at something it doesn't mean that you're less unique at whatever you are.

**What aspects did you like most about the program?**

The games. They were fun, so they made you feel better about yourself and everyone had fun. They all felt equal.

**Can you give me specific examples of when you have used skills from the RAP program?**

Not really. If someone says something, you just think of what place they're in and you're thinking that's their opinion so you take that into consideration and respect that.

**What suggestions would you have for improving the program?**

With the videos - maybe they could be a bit longer. The rest was alright.

**How useful do you feel a booster program would be? Suggestions for content and format?**

Good because at our age we kind of need this encouragement. It will help you in situations. Talk about self-esteem issues and two sides to things and that kind of stuff. The groups could all discuss the things together.

**INTERVIEW 22 (ID 125):**

**What do you remember that the RAP program was about?**

It was about helping people to build up their confidence and help them with their problems and how to deal with them. Just ways of handling different things.

**What aspects did you like most about the program?**

Different people - how they solve their problems. You can just think about it and can try it their way. You can actually talk about it and get other people's opinions.

**Can you give me specific examples of when you have used skills from the RAP program?**

Maybe, just at home. Everyone talks about how they deal with their parents. Like instead of fighting, just talk about it. If the music is too loud or whatever it is, I've thought about it and tried using different ways. Yeah we actually talked instead of yelling. I just had to quickly think about it…. yeah it was good.

**Have any other people around you (teachers, family, friends) noticed any changes in you since you did the program?**

I don't know - maybe.

**What suggestions would you have for improving the program?**

Maybe, talk about more things. Play different kinds of games, make it more interesting.

**How useful do you feel a booster program would be? Suggestions for content and format?**

Yeah it could be pretty good. If you do it once, you might forget but if you do it again and again, students might actually remember it. So if they have a problem, they will think back on this. (Go over) how to deal with situations, different ways of dealing with it, how to put up with people, just talk, if you're in a fight. Maybe stuff about physical appearance. Do it in the same groups, because if the groups are too big no one really pays attention. People will still listen to you.

**INTERVIEW 23 (ID 106):**

**What do you remember that the RAP program was about?**
It was a long time ago, but it was about dealing with problems. We got a work book and had lots of stuff in it. People you can go to when you have a problem.

**What aspects did you like most about the program?**
I liked when we had group work and the discussions. Everyone could have a say.

**Can you give me specific examples of when you have used skills from the RAP program?**
Maybe, just a couple. It sort of fades away after a while. You don't really remember much. We should have it more often. When I need someone to talk to, I just remember who I wrote down.

**What suggestions would you have for improving the program?**
I don't know. Maybe more videos to talk about.

**How useful do you feel a booster program would be? Suggestions for content and format?**
It would be alright, because people would remember and it would get in their head properly. But I don't think you should have it during sport, because a lot of people like doing sport. Do dealing with friendship problems and stuff because there are heaps of friendship problems in yr 8, 9 and 10. You'll find that in yr 11, girls finally find their group. To not stress, because we have exams. Dealing with problems at home.

**INTERVIEW 24 (ID 144):**

**What do you remember that the RAP program was about?**
It was about how you can turn to other people for help and different ways to cope with situations and what's a good way to react and what's a bad way to react.

**What aspects did you like most about the program?**
I can't remember that much. I liked the role plays where we tried to understand the other person' point of view. I liked the way you shouldn't behave and the ways that you should.

**Can you give me specific examples of when you have used skills from the RAP program?**
No. I already behave like that. I started putting it more into practice.

**What suggestions would you have for improving the program?**
I've got no idea.

**How useful do you feel a booster program would be? Suggestions for content and format?**
It depends on what situations different people are going through at the time, because different people need it at different times. Include how people react - risky or resourceful - that was very good. Some people just don't understand other people and do what they want to do and they don't realise what the other person feels like. Stuff about exams.

**INTERVIEW 25 (ID 145):**
**What do you remember that the RAP program was about?**
Just like about ourselves. To help us deal with problems or whatever. I don't have a very good memory.

**What aspects did you like most about the program?**
The group stuff was alright.

**Can you give me specific examples of when you have used skills from the RAP program?**
Not really.

**What suggestions would you have for improving the program?**
I don't know. It was pretty alright. I suppose I got stuff out of it but I don't really remember any of it. It was a bit boring.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Yeah. It could be good, I suppose.

**INTERVIEW 26 (ID 9):**
**What do you remember that the RAP program was about?**
It was about building up your self-esteem and being more confident with yourself.

**What aspects did you like most about the program?**
When we were doing the book, it had all the steps in there. It helped me build up my confidence. The way the lady talked to us, it just sort of built me up.

**Can you give me specific examples of when you have used skills from the RAP program?**
With my sister. My Aunty and Uncle are living with us and we have to share a room. It's been 6 months already and she takes over my room and I didn't yell at her - I remembered and I just told her how I felt and said we had to clean up the room. Before I think I would have just blown it. At school, when I need help I go up to the teacher. I used to just sit there and try to do it myself. It's been building up my marks because I know how to do it.

**Have any other people around you (teachers, family, friends) noticed any changes in you since you did the program?**
My friends said "what's happened to you. You used to be so quiet and now you just tell everybody how you feel". I used to keep everything inside of me. (How much of this can be credited to the RAP program?) All of it.

**What suggestions would you have for improving the program?**
No it was good.

**How useful do you feel a booster program would be? Suggestions for content and format?**
I think that it would be good. It would help other people as well. Talk about the self-esteem and the confidence. Stuff about exams, to help us go up to the teacher and ask questions. Keep it as we did it.

**INTERVIEW 27 (ID 11):**
**What do you remember that the RAP program was about?**
Your self-esteem. Making new friends, that you don't usually hang around with. Networks.

**What aspects did you like most about the program?**
I liked most of it. It was fun.

**Can you give me specific examples of when you have used skills from the RAP program?**
Not really. Sometimes I think I don't like someone but then I think about it. Half the stuff already knew.

**What suggestions would you have for improving the program?**
None

**How useful do you feel a booster program would be? Suggestions for content and format?**
I don't know. Probably quite useful. Because we are teenagers, we are always in these situations. It just reminds us what we can do. Cover support networks.

**INTERVIEW 28 (ID 50):**
**What do you remember that the RAP program was about?**
To do with our problems and to deal with what we were going through.

**What aspects did you like most about the program?**
How you could relate to other people's problems. They could give you advice.

**Can you give me specific examples of when you have used skills from the RAP program?**
Not really.

**What suggestions would you have for improving the program?**
Be with more of your friends. You're kind of talking to strangers about your problems and it's kind of weird.

**How useful do you feel a booster program would be? Suggestions for content and format?**
I guess it would be okay. So people remember and use the skills that they've learned. They tend to forget. We don't have a very good memory. Look at the risky thoughts and all that. Maybe your relationship with your friends.

**INTERVIEW 29 (ID 87):**

**What do you remember that the RAP program was about?**
Adolescence and how to deal with things, and self-esteem.

**What aspects did you like most about the program?**
The party at the end of it. We ate food, had pizza and listened to music.

**Can you give me specific examples of when you have used skills from the RAP program?**
No

**What suggestions would you have for improving the program?**
Sometimes it was a bit boring. I think it was the books. Make it more exciting. Play more games. Do role plays about self-esteem.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Probably be a bit useful since we got a bit older and deal with different situations. The body clues and how to make yourself calmer (should be included). Stress, stress-management, in relation to exams.

**INTERVIEW 30 (ID 76):**

**What do you remember that the RAP program was about?**
About self-esteem and how you feel about yourself. How to deal with situations if someone is bullying you, and stuff like that. Basically it was how you felt about yourself. How you felt each day.

**What aspects did you like most about the program?**
Probably just knowing how to deal with situations.

**Can you give me specific examples of when you have used skills from the RAP program?**
Not since then.

**What suggestions would you have for improving the program?**
I can't think of anything.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Yeah, probably the same thing as year nine. Most people would remember it. It should be alright. It depends on what people thought of the other one. (Include) how you deal with situations. Probably not about how you feel and things. I think people found that a bit personal sometimes, because they were thinking I don't know if I should share or not. Probably if you got in heaps of trouble. Not just like minor things, but very serious.

**INTERVIEW 31 (ID 85):**

**What do you remember that the RAP program was about?**
It was about our self-esteem and how we felt about ourselves. How to cope with

situations.

**What aspects did you like most about the program?**
I liked sitting around and talking to the group. Just saying what we liked.

**Can you give me specific examples of when you have used skills from the RAP program?**
Yeah there has been (some times). Me and a friend of mine, we had a bit of an argument about something. She always thought that she was right about it and when she was wrong, we went and talked to a friend of ours about it, we didn't argue about it, we just talked it through and got the whole thing fixed up. Before, we would have started yelling and thrown our tempers. I think it's because of the RAP program. It gave me more confidence to do things I didn't think I could do before.

**Have any other people around you (teachers, family, friends) noticed any changes in you since you did the program?**
Some of them have. They said 'your confidence has changed' and stuff like that.

**What suggestions would you have for improving the program?**
None

**How useful do you feel a booster program would be? Suggestions for content and format?**
I think it would be very useful. In year 9 some people didn't pay much attention to it and they thought, this is just going to be a boring thing where they tell us to like ourselves. I think when they get to year 10, they might be a bit more mature about it. They (topics) were all pretty much important.

**INTERVIEW 32 (ID 124):**
**What do you remember that the RAP program was about?**
All about self-esteem, building self-esteem and getting people to come out and talk about their problems.

**What aspects did you like most about the program?**
I don't know. Like if you had problems during the week, you knew you had someone to got to and speak to on the Thursday. I didn't really say much though. I didn't have any problems. I sort of sat there and went along with it.

**Can you give me specific examples of when you have used skills from the RAP program?**
No

**What suggestions would you have for improving the program?**
They really get really personal and some people don't feel comfortable just coming out and saying it. It's usually the same thing over and over again so people hate going. It's just boring. Most of my group dragged themselves to it. Just sat there for 2 hours - it was pretty long.

**How useful do you feel a booster program would be? Suggestions for content and format?**

Pretty useful because I think people might seem to grow up a little bit more than this year. (Include) self-esteem, how to control yourself, anger control, how to control your anger. I don't think it should go a whole term, because it was pretty long. But keep the smaller groups because you get more done.

**INTERVIEW 33 (ID 67):**

**What do you remember that the RAP program was about?**

It was about building up your self-esteem and just how to react in certain things and not to over-do it and stuff.

**What aspects did you like most about the program?**

How we could sit there and talk and nobody could butt in. He said (our leader) said that whatever we said in there, no one could say outside and we could take anything to the group.

**Can you give me specific examples of when you have used skills from the RAP program?**

Not really. There have been that many dramas.

**What suggestions would you have for improving the program?**

No - I thought it was good.

**How useful do you feel a booster program would be? Suggestions for content and format?**

It would be useful, because we would have grown a bit by then and we'd need reminding of all the stuff that we learnt. Some people would have forgotten about what we learned in RAP. I think it would be useful. (Include) the way you treat your friends. The videos about how they treated their friends and not to make fun if something happened.

**INTERVIEW 34 (ID 94):**

**What do you remember that the RAP program was about?**

It was about growing up, as a group, as a family. I had this teacher, she was really good. She was in my society. We didn't get some old lady that was back in that generation. We got somebody who can really relate to us and to what our problems were and help us out.

**What aspects did you like most about the program?**

I liked the games of how we relate to each other. It kind of helps us out, based on our own knowledge, when it comes to our family - trying to talk to them. We did a lot of theory work and practical work. It helped us with our temper and stuff. It helped us to cool down. Helped us, the self-esteem thing, to relate to our friends and stuff.

**Can you give me specific examples of when you have used skills from the RAP program?**
I had really low self-esteem about myself earlier this year. I'm not going to be big-headed or anything but we this group thing and we had to write down about other people, what they're about and stuff and put in an envelope and I still look at it and stuff. I kind of think what do other people think about me. That's how my self-esteem boosts. When they write that about me - that I was nice, it really helped me out. I didn't realise people thought of me that way.

**What suggestions would you have for improving the program?**
I don't know. It's alright to me, what they do. I like it a lot. You don't have to change anything about it.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Really good. Because in year 10, it's bringing us into adolescence stage where we are turning 16. It would be really great if you guys could think about issues, how we can deal with problems for that age. Things like responsibilities and stuff, going steady and enjoy life before we get into anything serious. Taking care of ourselves, like if we ever get into partying and stuff like that, which most 16 year olds do. Think about what we should do before we get to the party. Self-esteem, because most people get really low self-esteem or have a lot more problems in a year. Things do change. We had this family thing we did in RAP, communicating with them.

**INTERVIEW 35 (ID 104):**
**What do you remember that the RAP program was about?**
Being in a room and talking about self-esteem. We had a special person. We just talked and had a little book. I forget!

**What aspects did you like most about the program?**
The party at the end, because we just talked. That was really fun.

**Can you give me specific examples of when you have used skills from the RAP program?**
I remember not to get angry, like just relax and stay calm and don't take it out on other people. I don't really get angry at my mum anymore. I never used to get angry at my mum, but now we just talk. I tell my sister just to talk about it and she's like "okay". So now she talks about it. There's a lot of stuff been happening, like at the school, making our self-esteem higher, but mostly I've learned from the RAP program.

**Have any other people around you (teachers, family, friends) noticed any changes in you since you did the program?**
Yeah, I think my mum has. I'm never rude to my mum, I always talk to her but I've been sort of calm.

**What suggestions would you have for improving the program?**
Make it a little bit more fun. When you talk about it, no one really listens. If you make it enjoyable and fun, I think most people would listen more. Like no one was listening, they were colouring in and drawing.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Probably, pretty useful. I talked to my sister about having RAP and she said that now is a really difficult time. She's in university, she's about 18. Before you could go out with your mum and all that and when you're older you can go out at night but now there is nothing to do. Most people just take drugs and smoke. I can't really remember RAP that much, but probably self-esteem and saying no to drugs and don't let anyone pressure you.

**INTERVIEW 36 (ID 28):**
**What do you remember that the RAP program was about?**
I really can't remember, just about confidence and self-esteem.

**What aspects did you like most about the program?**
I didn't know many people in our group but after the term was over I knew everybody and they were all my friends and it was really good. I thought it was fun. It gave me a lot of confidence, because I was so shy, I didn't want to say anything at the beginning but then I was so loud at the end, they couldn't shut me up. We still talk.

**Can you give me specific examples of when you have used skills from the RAP program?**
I don't think so.

**What suggestions would you have for improving the program?**
I don't think you should change it at all. I really liked it.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Pretty good, I guess.

**INTERVIEW 37 (ID 114):**
**What do you remember that the RAP program was about?**
It was about self-esteem.

**What aspects did you like most about the program?**
I liked the end. I liked when we had meditation. I remember we looked at situations when a girl asked a guy out who said "no because I have to do some other things" and she thought really bad and then they showed another girl doing it and she thought "well, maybe he does have to study and stuff". Which I thought was really good.

**Can you give me specific examples of when you have used skills from the RAP program?**
A bit. Some of them I've thought through again with friends and things like that. I think it gave me more patience because we had an assignment to do and one of the girls in my group hadn't done her share and asked her nicely instead of demanding and now she's almost finished it. It's probably a result of a few things.

**What suggestions would you have for improving the program?**
More games and things like that. Have a bit more exciting things. A lot of people

thought it was so boring because we did a lot of writing. The book was a bit long. People thought it went for too long. Have more videos - they were too short.

**How useful do you feel a booster program would be? Suggestions for content and format?**
If it was more exciting than year 9, I would do it. I think I had a really good understanding of self-esteem already, because I've been learning it since primary school. But maybe for other students, I think so. (Include) self-esteem, to stay calm during exams and not to be peer-pressured.

**INTERVIEW 38 (ID 153):**
**What do you remember that the RAP program was about?**
It was about how we were feeling, about our self-esteem.

**What aspects did you like most about the program?**
I liked the little piggy thing (selfenometer). I liked that! I like how we had to do the candles.

**Can you give me specific examples of when you have used skills from the RAP program?**
I usually have fights with my mum, just over little things. But I've been heaps calmer and everything. I used to think of myself, like, I'm nothing but now, instead of having those thoughts I think confidently about myself. Like " I can do this". The word "can't" isn't in my vocabulary anymore. It's probably from part of the RAP program but also PE, we've been looking at how we think about ourselves.

**Have any other people around you (teachers, family, friends) noticed any changes in you since you did the program?**
My mum has. She always says "You've changed. You're so much easier to talk to than you were before".

**What suggestions would you have for improving the program?**
Probably just choose our own groups. If we could have our friends, we would talk more easily to each other.

**How useful do you feel a booster program would be? Suggestions for content and format?**
Because you forget some of it, it would be good. Probably just have stuff on drugs, to make yourself so you don't have to go to drugs, just to feel like you are something.

**School B - 3 month interviews**

**INTERVIEW 1:**

**Can you tell me what you remember the RAP program being about?**
It was about a learning experience, how to take challenges and how to deal with them.

**What did you like most about the program?**
The fun activities that made it interesting and made it fun to learn. Group activities, like working together.

**Any examples of specific examples where you have used the skills from RAP?**
Yeah, some group workings, decision making.

**Have other people noticed any changes in you?**
No

**What didn't you like, what would you change?**
To make it more adult, it's very childish. It's very basic, it doesn't deal with the main issues.

**INTERVIEW 2:**

**Can you tell me what you remember the RAP program being about?**
Self control.

**What did you like most about the program?**
Talking to my friends.

**Any examples of specific examples where you have used the skills from RAP?**
No

**Have other people noticed any changes in you?**
Yeah, my parents because I'm being kind to my sister now. I used to be mean to her, but now I don't do that.

**What didn't you like, what would you change?**
It was good.

**INTERVIEW 3:**

**Can you tell me what you remember the RAP program being about?**
It was about how we think of ourselves, confidence, friends, how to handle your problems.

**What did you like most about the program?**
I liked the discussions.

**Any examples of specific examples where you have used the skills from RAP?**
Not really.

**Have other people noticed any changes in you?**
No I don't think so.

**What didn't you like, what would you change?**
Nothing really, it was pretty good. Maybe the group could structure a lesson, so they could tell their problems and discuss it.

**INTERVIEW 4:**

**Can you tell me what you remember the RAP program being about?**
How to keep yourself unstressful, how to get out stress, how to not get emotionally upset, so you don't worry about things.

**What did you like most about the program?**
I enjoyed the whole program, I liked learning different ways to find out about stress, to correspond with other people and see what they're going through.

**Any examples of specific examples where you have used the skills from RAP?**
Yeah, usually when I get worried and things, I usually use the program's ideas of figuring out the problem and sorting out what to do - I use that regularly. If I'd never done the program I would have stressed out about it.

**Have other people noticed any changes in you?**
Yes, my parents have noticed I'm calm lately. They want to know why I'm so calm, normally I snap back at them when something goes wrong, but now I let it go over and sort it out. I say 'keep calm, you can work this out' - it just comes to me.

**What didn't you like, what would you change?**
I wouldn't quite know, I never found anything wrong with the program. Some parts I found boring - when we had to build things with the candles, I couldn't stand doing that, because there were 2 people in our group who kept running it their way and they wouldn't let anyone else find it so the rest of the group just went out and let those two complete it. That's the only thing I found a bit annoying, but the rest of it was good. It helps me out in everyday life.

**INTERVIEW 5:**

**Can you tell me what you remember the RAP program being about?**
I remember them teaching us about how to deal with life, like if you have situations, those bricks, how you should think about yourself, like don't think negative and all that.

**What did you like most about the program?**
You can really use it in life, it is useful.

**Any examples of specific examples where you have used the skills from RAP?**
Like not thinking negatively, like if someone stands you up, don't think they don't like you, just think they missed the bus or something. Don't blame them. I was with my girlfriend and she stood me up twice and I just thought it doesn't matter because she says she likes me and I trust her and I shouldn't think that she doesn't like me or something and I shouldn't think negatively. Before the program, I would have been pissed and called her and just kept yelling at her. So it's a good program because it changed my life a bit.

**Have other people noticed any changes in you?**
Friends, probably.

**What didn't you like, what would you change?**
Make it veer towards some drama so that we can see some real life examples, or get people…the role plays. It's a good thing to do, it's positive.

**INTERVIEW 6:**

**Can you tell me what you remember the RAP program being about?**
How to solve our problems and we did a few practical lessons, our teacher gave us situations that we were in and we had to say what we'd do in those sorts of situations.

**What did you like most about the program?**
The bit where we get to get up and do things.

**Any examples of specific examples where you have used the skills from RAP?**
Yeah one of them, when you get into a fight with your parents. Before we used to ask can we go to the movies, he taught us to say from now on 'is there any reason why I can't go to the movies'.

**Have other people noticed any changes in you?**
Yeah, because I gave my mum the book (RAP workbook) and she noticed that I was doing some of the stuff in the book. (She thought) it was pretty good, she said I learnt a lot during that.

**What didn't you like, what would you change?**
When we do heaps of writing, there's things we don't really know about.

**INTERVIEW 7:**

**Can you tell me what you remember the RAP program being about?**
About learning how to deal with certain situations, not to get worried when things happen.

**What did you like most about the program?**
Not sure, the role playing.

**Any examples of specific examples where you have used the skills from RAP?**
I don't know.

**Have other people noticed any changes in you?**
Probably doing things much the same.

**What didn't you like, what would you change?**
Not sure. It taught me a few things, like how to solve problems and not to worry about it that much so I did benefit from it a bit.

**INTERVIEW 8:**

**Can you tell me what you remember the RAP program being about?**
It was just about helping us in our teenage years, to help us out.

**What did you like most about the program?**
We all joined in, it was fun.

**Any examples of specific examples where you have used the skills from RAP?**
Not really, but it helps you in some situations.

**Have other people noticed any changes in you?**
No -they didn't tell me anything.

**What didn't you like, what would you change?**
No, it's just fun. I got some things out of it, it helped me through some things, everyday things.

**INTERVIEW 9:**

**Can you tell me what you remember the RAP program being about?**
It was about our feelings, how to control them. I forget most of it!

**What did you like most about the program?**
When we had to work in the groups and figure out ways to do stuff.

**Any examples of specific examples where you have used the skills from RAP?**
Probably, yeah.

**Have other people noticed any changes in you?**
I don't know, maybe. I'm not sure. Maybe in just the way I act. Maybe thinking straight more.

**What didn't you like, what would you change?**
It's alright the way it was. It was good.

**INTERVIEW 10:**

**Can you tell me what you remember the RAP program being about?**
It was lots about confidence building, getting to know other people your age, things you experience, problems, difficulties, what people are there to help you.

**What did you like most about the program?**
Just getting to know a small group of people, helping to build your confidence.

**Any examples of specific examples where you have used the skills from RAP?**
A few of them, it just makes you feel like a better person.

**Have other people noticed any changes in you?**
Probably not.

**What didn't you like, what would you change?**
It's pretty successful the way it is right now, you'd have to think a fair while before making any changes to it. Just probably like filling out the sheets (I didn't like that). The program just helps you everyday, especially like adolescent age.

**INTERVIEW 11:**

**Can you tell me what you remember the RAP program being about?**
I remember we did problem solving, troubles in your family. We got some materials and we had to make things stick to the wall.

**What did you like most about the program?**
We were doing that thing where you had to stick things on the wall, that was pretty good.

**Any examples of specific examples where you have used the skills from RAP?**
Yeah, probably.

**Have other people noticed any changes in you?**
No

**What didn't you like, what would you change?**
We did a lot of discussion, maybe less writing, more practical stuff. It didn't really mean much, we were just writing it down.

**INTERVIEW 12:**

**Can you tell me what you remember the RAP program being about?**
Talked about if you have any problems with your friends and stuff, just how to handle what happens at home, if you're having trouble with your parents or something.

**What did you like most about the program?**
When we got to work together.

**Any examples of specific examples where you have used the skills from RAP?**
No.

**What didn't you like, what would you change?**
Just when you had to look in the book. Just talking, more group work. I didn't really get much out of it.

**INTERVIEW 13:**

**Can you tell me what you remember the RAP program being about?**
About me, your life and that.

**What did you like most about the program?**
I don't know.

**Any examples of specific examples where you have used the skills from RAP?**
Yeah.

**Have other people noticed any changes in you?**
Yeah, probably my family.

**What didn't you like, what would you change?**
Maybe make it a bit longer.

**INTERVIEW 14:**

**Can you tell me what you remember the RAP program being about?**
About self esteem, problems, families.

**What did you like most about the program?**
You got to express yourself with no one saying anything. I found it a bit of a bludge.

**Any examples of specific examples where you have used the skills from RAP?**
Not really, I haven't been in those situations.

**What didn't you like, what would you change?**
I'm not sure, it's just something good to experience. I still got something out of it, but there wasn't much work involved.

**INTERVIEW 15:**

**Can you tell me what you remember the RAP program being about?**
Helping each other out, thinking before you act and stuff like that. We had a lot of group discussions, talked a lot.

**What did you like most about the program?**
When we had group discussions, when we were writing up stuff.

**Any examples of specific examples where you have used the skills from RAP?**
Not really.

**Have other people noticed any changes in you?**
Probably, close friends.

**What didn't you like, what would you change?**
No, it was alright.

**INTERVIEW 16:**
**Can you tell me what you remember the RAP program being about?**
Basically, to boost people's self esteem, encourage people and teach them how to be resourceful.

**What did you like most about the program?**
Group activities, it was a lot of fun doing that.

**Any examples of specific examples where you have used the skills from RAP?**
Not really. You tend to apply that kind of attitude anyway. It would certainly help people who wouldn't normally. I basically just built up a lot of terminology for everything.

**What didn't you like, what would you change?**
Helping other people and talking about real issues, discussing any problems they may have. It's good, it should be there. A lot of people, it would help a lot. But I didn't think it was good for me.

**INTERVIEW 17:**
**Can you tell me what you remember the RAP program being about?**
I did that book and it was just the book. We had a party after. Self confidence and all that.

**What did you like most about the program?**
The selfenometer - that was alright. You just draw pigs and stuff. It was good, it taught you a lot.

**Any examples of specific examples where you have used the skills from RAP?**
I think so. Like calming down - I used to be stressful and just….. School work, I was bad at it and I just talked to someone and they moved me down and it's good now.

**Have other people noticed any changes in you?**
Probably not.

**What didn't you like, what would you change?**
I don't know -it's alright, it's a good program. I didn't think it was bad in any way.

**INTERVIEW 18:**
**Can you tell me what you remember the RAP program being about?**
Got in a big group and just talked about different things. How to handle depression, if you're feeling down how to handle it properly.

**What did you like most about the program?**
Talking in a big group.

**Any examples of specific examples where you have used the skills from RAP?**
Sometimes. Like if people are arguing, just don't get involved.

**Have other people noticed any changes in you?**
Some, maybe. I'm not sure.

**What didn't you like, what would you change?**

It's alright the way it is.

**INTERVIEW 19:**

**Can you tell me what you remember the RAP program being about?**
Yeah, it was about building up your confidence a bit and finding what you need to build on to get self confidence.

**What did you like most about the program?**
The activities where we had to play out stuff, like the problems that we had. Sometimes when people tease you and stuff you have to think of a way to solve it.

**Any examples of specific examples where you have used the skills from RAP?**
Yeah a bit, when other people get teased I tell them to stop it because you might know how it feels. I hadn't thought about it as much as after we did the RAP program.

**Have other people noticed any changes in you?**
I'm not too sure.

**What didn't you like, what would you change?**
Not really, it's pretty good how it is.

**INTERVIEW 20:**

**Can you tell me what you remember the RAP program being about?**
Controlling yourself, self esteem

**What did you like most about the program?**
I can't remember much of it.

**Any examples of specific examples where you have used the skills from RAP?**
Yeah. Sometimes my parents really make me mad and I've just thought it over. Before I would have gone wacko, just gone crazy. Now I just take it.

**Have other people noticed any changes in you?**
Yeah, I know they have (my parents).

**What didn't you like, what would you change?**
No.

**INTERVIEW 21:**

**Can you tell me what you remember the RAP program being about?**
A lot of discussions, a lot of situations we could be in, how we cope with it, what we could do about it, how we could make things better.

**What did you like most about the program?**
Mostly the group work, how we discussed the problems and how we'd cope. Probably the best was how to solve the activity sheets, the one with the bottle and barrel.

**Any examples of specific examples where you have used the skills from RAP?**
I wouldn't use it every day but I've used it before. At my best friend's party there was a bit of drug use there, it got offered to me but I just passed it along and nothing was said. Before I probably would have used it if I didn't do RAP because I probably wasn't thinking then, like afterwards it made me think about a lot of things like that.

**Have other people noticed any changes in you?**

Probably my friends, the way I act towards things, if they do something wrong I try and help them with it. I'm not exactly in their position anymore like getting in trouble.

**What didn't you like, what would you change?**
The students, most of them saw it as a bludge, a waste of time, but probably if someone their own age that has already done it told them about it, it would probably help.

**INTERVIEW 22:**
**Can you tell me what you remember the RAP program being about?**
About trying to make people more positive about their day, trying to get more confident.

**What did you like most about the program?**
The games that we had.

**Any examples of specific examples where you have used the skills from RAP?**
Not since then, I should have though. I've had a few problems where I had to use some of it but I didn't use it. It wasn't too clear to me.

**Have other people noticed any changes in you?**
No

**What didn't you like, what would you change?**
Mostly kids don't take it seriously because they don't think that it will happen to them but it probably will one day so they don't pay any attention to it. Show them things of where kids have had troubles so maybe they'll see how they're going to have to use it. Show them where they should use it because we were never told where we should use it. I got a little bit out of it I suppose, but not as much as I thought I would. It wasn't what I expected. I thought it would be more of - to tell you what to do with your problems.

**INTERVIEW 23:**
**Can you tell me what you remember the RAP program being about?**
About dealing with problems and stuff, if there's problems at school you know how to deal with them.

**What did you like most about the program?**
When we dealt with the problems that we all face.

**Any examples of specific examples where you have used the skills from RAP?**
Sometimes, I guess. Like when you talk to other people. A bit with self esteem I guess. There was a time when my parents split up, this year and I was heaps slow and I thought it was my fault. But then I decided, well I also had other help, but thought it's not really my fault. Just move on.

**Have other people noticed any changes in you?**
I don't know.

**What didn't you like, what would you change?**
It was a bit long, some of the things were a bit boring. Sometimes it got too boring, like specific subjects and they just kept talking about it. Too repetitive. More activities instead of just sitting down reading and the work in the book, that was pretty boring.

**INTERVIEW 24:**
**Can you tell me what you remember the RAP program being about?**
About increasing your self esteem, communicating with other people.

**What did you like most about the program?**
The group activities, the role plays.

**Any examples of specific examples where you have used the skills from RAP?**
I haven't really been in any situations.

**Have other people noticed any changes in you?**
No

**What didn't you like, what would you change?**
More activities.

**INTERVIEW 25:**
**Can you tell me what you remember the RAP program being about?**
Helping you in problems you have, if you're worried about them.

**What did you like most about the program?**
Group work, posters and stuff like that.

**Any examples of specific examples where you have used the skills from RAP?**
Yeah, I think of the positive side of things. I've got into to trouble or something, I just think of the positive.

**Have other people noticed any changes in you?**
Not really.

**What didn't you like, what would you change?**
Not sure. Some book work, just the writing. Some things were good, some things didn't really help me much.

**INTERVIEW 26:**
**Can you tell me what you remember the RAP program being about?**
Help us cope better with problems that we have. To help other people solve their problems.

**What did you like most about the program?**
The role plays, at the end of the lesson we had to fill out that sheet on how we think we did. In normal lessons in school you don't get to do things like that. It was different.

**Any examples of specific examples where you have used the skills from RAP?**
Yeah I have once or twice. My brothers, we don't really get along, I just remember that… I either avoid them or talk it out with them.. that usually works. Before we used to get into fights most of the time.

**Have other people noticed any changes in you?**
My brothers probably have. A few of my friends have, they say 'you're acting differently now'.

**What didn't you like, what would you change?**
I think I liked most of it. I can't remember anything I didn't like. I think the groups ought to be a bit smaller, one or two people less.

**INTERVIEW 27:**

**Can you tell me what you remember the RAP program being about?**
About peer support, peer pressure, sticking up for yourself, being yourself, not letting anyone boss you around.

**What did you like most about the program?**
The activities, some of the games, it was fun getting into a group and just mucking around with friends and doing quizzes and stuff.

**Any examples of specific examples where you have used the skills from RAP?**
Yeah once, I've been bullied around and I've thought about what was said in the program. I just ignored some people. Before I would have called some of my friends but now I just ignore the people.

**Have other people noticed any changes in you?**
I'm a bit more quieter, people say when I first came to the school I was a bit cheeky, naughty but now I'm getting used to it.

**What didn't you like, what would you change?**
No, it was fun. I liked it, the games and activities and talking to the teacher. Just get to the point more clearly.

**INTERVIEW 28:**

**Can you tell me what you remember the RAP program being about?**
I remember that it helped you deal with problems that you have. I thought that was a good thing about it. Other ways to solve problems, like you don't go for hitting the guy first, you talk to him.

**What did you like most about the program?**
I enjoyed, there was a sheet of paper and there was a problem and we worked in a group to find it out.

**Any examples of specific examples where you have used the skills from RAP?**
When we play football, if someone starts swearing, I think don't worry, don't hit him yet - work things out first. Before I would have started punching way before.

**Have other people noticed any changes in you?**
Not really, because all of them are the same, they remain calm.

**What didn't you like, what would you change?**
Sometimes when we just talked and we didn't do any activities in the lesson. I liked it when we talked and then did something. I'd suggest teaching and then doing other activities, I thought that was an easy way to learn. It was something that I would have needed for the future. I thought it was pretty good.

**INTERVIEW 29:**

**Can you tell me what you remember the RAP program being about?**
It helped you socialise, fit in better, solve your problems.

**What did you like most about the program?**
Not really sure, it was alright, I didn't really have any favourite parts.

**Any examples of specific examples where you have used the skills from RAP?**
Not really, I was taught that a long time ago.

**Have other people noticed any changes in you?**
No

**What didn't you like, what would you change?**
The group, I was put in with people, I had enemies in there, we got along but sometimes we fought. It just reminded me of things I already knew.

**INTERVIEW 30:**
**Can you tell me what you remember the RAP program being about?**
Making friends, how to treat your friends, how to handle situations, not to take drugs.

**What did you like most about the program?**
It was all pretty good. Working together to figure out puzzles and that.

**Any examples of specific examples where you have used the skills from RAP?**
A bit, not really. I was having a fight with my mum - not to yell at her.

**Have other people noticed any changes in you?**
No.

**What didn't you like, what would you change?**
Writing things down on sheets. Go outside more.

**INTERVIEW 31:**
**Can you tell me what you remember the RAP program being about?**
We learnt how to improve our self esteem, how to cope in life through teenage years, we did activities.

**What did you like most about the program?**
The activities, the one where we had to have our eyes closed and we had to find our place in the line, yeah all the activities.

**Any examples of specific examples where you have used the skills from RAP?**
I try to think more positive now, but it really hasn't effected me.

**Have other people noticed any changes in you?**
Yeah, they could have, maybe more confident in my work, I study more because I concentrate more, maybe my grades are going up.

**What didn't you like, what would you change?**
Nothing really in particular, we had to write a bit. It was alright. Maybe more practical activities, like the problem solving.

**INTERVIEW 32:**
**Can you tell me what you remember the RAP program being about?**
Self esteem and stuff. To help us know our feelings compared to other people and how everyone was the same as us if we felt weird.

**What did you like most about the program?**
When we did physical stuff, we got up and did activities together and tried to figure out problems. That was pretty cool.

**Any examples of specific examples where you have used the skills from RAP?**

Yeah, probably. You just take time to think. Like if you're going to get angry you think what's the consequences. Yeah, it helped me I suppose, after the RAP program I started to think a bit. Not always but some of the time.

**Have other people noticed any changes in you?**
Yeah, they notice that you change. Like you think more.

**What didn't you like, what would you change?**
Sometimes you just don't want to sit down and stuff with everyone. Sometimes you don't want to write in those books. But it was usually pretty good. Only some things I didn't like because of the mood I was in on the day and stuff. It was pretty good but. It was (worthwhile) because everyone is at the stage now where they're starting to, some people are having troubles and stuff, so it kind of helped everyone.

**INTERVIEW 33:**
**Can you tell me what you remember the RAP program being about?**
We learnt how to improve our self esteem, played some games, just talked, that's basically it. We followed the book.

**What did you like most about the program?**
We missed out on some school time. We played some games so that was pretty fun.

**Any examples of specific examples where you have used the skills from RAP?**
Not really.

**Have other people noticed any changes in you?**
No I don't think so.

**What didn't you like, what would you change?**
It was a bit boring sometimes, some of the work. The topics.. well I've learnt these before, like self esteem, so it was a bit boring. Make better topics, fresher ones.

**INTERVIEW 34:**
**Can you tell me what you remember the RAP program being about?**
Basically, don't judge them how they look, make friends, don't be nasty, don't tease.

**What did you like most about the program?**
When we had group discussions about things and the party at the end.

**Any examples of specific examples where you have used the skills from RAP?**
No not really.

**Have other people noticed any changes in you?**
No.

**What didn't you like, what would you change?**
Nothing really, it just went a bit too long - 2 periods. Maybe just one period twice a week. Now I look at things differently from before, so it helped me a bit.

**INTERVIEW 35:**
**Can you tell me what you remember the RAP program being about?**
Controlling your anger, taking risks, good risks and bad risks, keeping your calm, keeping cool.

**What did you like most about the program?**

I liked learning ways to cope with pressure, I found it quite useful. When it comes to exam time I'm able to relax instead of getting all hyped up.

**Any examples of specific examples where you have used the skills from RAP?**
Yeah, because I haven't been in an argument for a while so I'm just using it.

**Have other people noticed any changes in you?**
No not really.

**What didn't you like, what would you change?**
I found it all quite interesting but sometimes it was a waste of your time doing it because with some people it just goes in one ear and comes out the other so they're back to the same. I found it pretty helpful and useful and I took an active part in it.

**INTERVIEW 36:**
**Can you tell me what you remember the RAP program being about?**
About self esteem, feelings and everything, if you were in a situation what you'd do and stuff.

**What did you like most about the program?**
Being in a group and hearing everyone else's situation and stuff, like know that you weren't on your own.

**Any examples of specific examples where you have used the skills from RAP?**
I haven't really come to a situation that would help me yet.

**What didn't you like, what would you change?**
It could have been based on a younger age group, maybe year 6-7. Some people didn't take it as seriously as others.

**INTERVIEW 37:**
**Can you tell me what you remember the RAP program being about?**
About coping with problems, problem solving, helping people, trying to stay calm.

**What did you like most about the program?**
Problem solving - we had to put the candle on the wall.

**Any examples of specific examples where you have used the skills from RAP?**
No not really.

**What didn't you like, what would you change?**
The self esteem part, because I already have self esteem. It wasn't really beneficial for me but maybe for other people.

**School C - 3 month interviews**

**INTERVIEW 1 - male:**

**What do you remember that the RAP program was about?**
About how to solve problems, how to get over them and things like that.

**What aspects did you like most about the program?**
I remember that it helped.

**Can you give me specific examples of when you have used skills from the RAP program?**
Just how to try to ignore people. Before I would have gotten angry and reacted.

**What any other people around you (teachers, family, friends) have noticed any changes in you since you did the program?**
Yeah my parents would have. They haven't (really said anything to me), but I think they would have noticed.

**What suggestions would you have for improving the program?**
A bit more fun, more activities.

**INTERVIEW 2 - female:**

**What do you remember that the RAP program was about?**
Was it to help teenagers to cope with situations, stuff like that?

**What aspects did you like most about the program?**
I suppose the group talking and the activities that you did in groups.

**Can you give me specific examples of when you have used skills from the RAP program?**
With your parents and stuff, you should see their side of the story more.

**What any other people around you (teachers, family, friends) have noticed any changes in you since you did the program?**
I don't think so.

**What suggestions would you have for improving the program?**
I suppose if the kids could suggest some activities.

**INTERVIEW 3 - male:**

**What do you remember that the RAP program was about?**
About childhood death, suicide, helping us understand a lot of it, friendship.

**What aspects did you like most about the program?**
Mainly writing down and talking.

**Can you give me specific examples of when you have used skills from the RAP program?**
Maybe just talking to people, not feeling so alone. Sometimes if you have a fight with friends, you can talk to people in a group. I've done that in the last few months. (Before) I would have bottled it up and kept it to myself.

**What any other people around you (teachers, family, friends) have noticed any changes in you since you did the program?**
Maybe, mainly family would have noticed changes. I used to be a bit by myself and now I come out and talk to them.

**What suggestions would you have for improving the program?**
Sometimes the book work was… most kids didn't like it. Thursday afternoon, sport was on and so kids got a bit aggravated. Some of the activities were a bit childish. Maybe some of the scales and stuff.. doing that every week .. that wasn't all that.. a bit boring.

**INTERVIEW 4 - male:**
**What do you remember that the RAP program was about?**
Relieving stress, getting an efficient way to deal with problems, solving problems.

**What aspects did you like most about the program?**
The part where you could relieve your stress, meditation.

**Can you give me specific examples of when you have used skills from the RAP program?**
Yes, I was pretty stressed one night and I put on some really calm music and relaxed. Before I wouldn't have done anything.
I used to be pretty pessimistic about stuff, used to think everything bad's going to happen but now I've changed it a bit.

**What any other people around you (teachers, family, friends) have noticed any changes in you since you did the program?**
Maybe my parents, but not really.

**What suggestions would you have for improving the program?**
No not really…it was pretty good. It's hard to remember now, it was a while ago.

**INTERVIEW 5 - male:**
**What do you remember that the RAP program was about?**
It was about friendship and how to deal with situations. We talked a lot and a couple of games and that.

**What aspects did you like most about the program?**
Making paper aeroplanes! The last day was pretty good – the party that we had and all the food and mucked around a lot.

**Have you used any of the skills in everyday situations? Can you give me specific examples of when you have used skills from the RAP program?**
Not that I know of, but it probably has, you sort of don't know of.

**What any other people around you (teachers, family, friends) have noticed any changes in you since you did the program?**
Maybe my parents might have. I don't know, I might be a bit nicer, listen more, stay calm and that.

**What suggestions would you have for improving the program?**
Make it through school, the actual classes not during sport. Not as much writing, more fun, not following the book and that. More enjoying yourself.

**INTERVIEW 6 - male:**
**What do you remember that the RAP program was about?**
About how to cope with other people, family, friends, self confidence, self esteem.

**What aspects did you like most about the program?**
Just talking to each other about problems or just about yourselves.

**Have you used any of the skills in everyday situations? Can you give me specific examples of when you have used skills from the RAP program?**
Occasionally, just trying to cope with other people in the class. I try to get along with them, just talk to them, be nice to them. Before I'd ignore them and ….

**What any other people around you (teachers, family, friends) have noticed any changes in you since you did the program?**
Probably, a few of my friends and peers. Maybe me not getting angry at other people to easily.

**What suggestions would you have for improving the program?**
I'm not sure, nothing much. It was okay, it would be better if it wasn't during sport.

**INTERVIEW 7 - male:**
**What do you remember that the RAP program was about?**
Just about your self esteem, things like that, what to do, why you do it.

**What aspects did you like most about the program?**
It was all about the same.

**Have you used any of the skills in everyday situations? Can you give me specific examples of when you have used skills from the RAP program?**
Not really, sometimes with little things but not for big things. If you have a little argument or something, just talk it over. Before I would have kept yelling, now I just sort of calm down.

**What any other people around you (teachers, family, friends) have noticed any changes in you since you did the program?**
At home… because it's just different, it's not what I would have usually done.

**What suggestions would you have for improving the program?**
Sometimes we did the same things over and over.. a lot of the questions were repetitive, especially in the book, the questions we had to fill out at the end. Don't repeat that as many times.

**INTERVIEW 8 - male:**
**What do you remember that the RAP program was about?**
About self esteem and all that, about people trying to kill themselves because of bad problems and stuff.

**What aspects did you like most about the program?**
The active games and stuff, the knot game.

**Have you used any of the skills in everyday situations? Can you give me specific examples of when you have used skills from the RAP program?**
Yeah some of them, like when you're angry and all that, think about how to calm yourself down.

**What any other people around you (teachers, family, friends) have noticed any changes in you since you did the program?**
I don't know.

**What suggestions would you have for improving the program?**
I didn't like when we were doing nothing, just talking. Make it more fun, more appealing to come to.

**INTERVIEW 9 - male:**

**What do you remember that the RAP program was about?**
Teaching you what to do, what to say, drugs, friends and relationships

**What aspects did you like most about the program?**
Acting things out was alright, it was pretty good. We did a few fun things – throwing aeroplanes, the problem solving thing.

**Have you used any of the skills in everyday situations? Can you give me specific examples of when you have used skills from the RAP program?**
When you do you go "oh", we did that in RAP so you think about it a bit. Like with your friends, say you have an argument with your friend you go "we did this in RAP", what to do and how to keep calm. Now you look at both sides of the story and you see whether it is their fault or my fault and you go and sort it out with them and discuss it with them. Before you'd get angry and walk away.
Also, to say no to things like with peer pressure and that.

**What any other people around you (teachers, family, friends) have noticed any changes in you since you did the program?**
Not sure, probably, don't ask them.

**What suggestions would you have for improving the program?**
It was kind of boring through the meditation, thought that was a bit youngish – that was about the only thing. The videos were good. Yeah it was good thanks – I enjoyed it!

**INTERVIEW 10 - female:**

**What do you remember that the RAP program was about?**
About how to treat others, self esteem and stuff like that, how to be calm about situations.

**What aspects did you like most about the program?**
When you got to talk about how to calm yourself because it makes you feel like you can actually do it when a situation comes.

**Have you used any of the skills in everyday situations? Can you give me specific examples of when you have used skills from the RAP program?**
I can't believe my sister – like we have a good friendship and stuff but sometimes she can be a bit annoying and I just count to 10 sometimes and go off. Before I would have an argument with her or something like that.

**What any other people around you (teachers, family, friends) have noticed any changes in you since you did the program?**
I don't think so.

**What suggestions would you have for improving the program?**
My class was a bit noisy, they didn't really take much in. It was pretty good. I would change it to year 7, instead of doing peer support with the leaders, they don't do much, you can actually learn more with each other in year 7, because you're new to the school. I got bits and pieces out of it, like the thinking about stuff, it gave me a bit more self esteem.

**INTERVIEW 11 - female:**

**What do you remember that the RAP program was about?**
About building yourself up a bit, and not letting other people put you down working together, dealing with stress and stuff.

**What aspects did you like most about the program?**
Making aeroplanes, didn't like the discussions

**Have you used any of the skills in everyday situations? Can you give me specific examples of when you have used skills from the RAP program?**
I haven't had many fights. It was something that I just did (the program). I didn't like the drama stuff because I hate getting up in front of people, the videos were a bit dodgy!

**What suggestions would you have for improving the program?**
Make in a bit more fun. We did heaps of discussions, everyone talked and everything but it was still a bit boring. Get the groups together a bit more, everyone was separated and it wasn't that fun. I was away from all my friends, I knew a few people but….

**INTERVIEW 12 - female:**
**Can you tell me what you remember the RAP program being about?**
Something about your self esteem and stuff like that. Something about friendships.

**What did you like most about the program?**
Playing some of the games, like how they had the teams and stuff, and the candle thing.

**What aspects of the program have you found to be most beneficial in your life?**
A little bit, but I always do that anyway - I think of different views and stuff.

**What didn't you like, what would you change?**
Nothing, I didn't mind it. I didn't like how we had to write down all those things on a big piece of paper, because no one did anything and we just sat there. More activities so everyone gets involved. Only a couple of people were talking (in my group), the rest were just quiet.

**INTERVIEW 13 - male:**
**Can you tell me what you remember the RAP program being about?**
I can't remember that much actually, because I've been doing so much work and stuff, it was about being with your friends, positive - confidence that you need during adolescence - yeah that's about it.

**What did you like most about the program?**
Most of the activities were fun, the book work was alright, just writing down stuff like the phone numbers for the health organisations and all that.

**Any examples of specific examples where you have used the skills from RAP?**
When I was younger, I wasn't that confident and I was nervous and stuff, but now I'm more confident to do speeches and play sport. I don't get into fights or anything, I'm not that kind of fighting person.

**Have other people noticed any changes in you?**
Yeah, probably, but I don't really know.

**What didn't you like, what would you change?**
It was pretty good, but some parts are a bit boring. Overall it was pretty good. Maybe do more activities with children, have fun games, trying to know more of the people's names and getting along with them better.

**INTERVIEW 14 - male:**
**Can you tell me what you remember the RAP program being about?**
About being confident with yourself and confident in what you do with other people and stuff like that.

**What did you like most about the program?**
Not really sure, the discussions were pretty good but I guess that probably depended on who was in your group.

**What aspects of the program have you found to be most beneficial in your life?**
I was already like that before (as in being able to be calm, relax etc). It was like, you're like this and this is what we want you to be like.

**What didn't you like, what would you change?**
It being in sport. It was a bit slow, it was just boring because…..A lot of people said it was boring. It was too dragged out. It was the same thing, just said in different ways so it got a bit repetitive. Make it a bit quicker, put more activity into it. A lot of people react well to movement, I react well to movement, a lot of people I know react well to movement and there are only a couple that react well to talking.

**INTERVIEW 15 - female:**
**Can you tell me what you remember the RAP program being about?**
It was about your life and how to help you through it. Coping with your friends and your family and if you have any problems at home, how to fix them.

**What did you like most about the program?**
I enjoyed the practical parts, how you did things in team work to achieve something.

**Any examples of specific examples where you have used the skills from RAP?**
Sometimes, yeah but what they told us, it sort of made us think and …. Well when the RAP program was on I was in a group that I didn't really feel comfortable around so it sort of helped me make up my mind and move to another group and so now I'm in another group and I'm happy. So it did help me…yeah. There were things like on friends and family, things on friends that really hit me, like when they were having fights, not really agreeing with them, not really happy with them and other people said you don't really fit into that group.

**Have other people noticed any changes in you?**
Yeah, I wasn't social before because I didn't want to go out with my friends that I was with, so I just sort of stayed at home doing things. But now I'm with this group I go out almost every weekend. I think my Mum once said 'Why don't you go out as often as you did before', but now I do go out more.

**What didn't you like, what would you change?**
I didn't really, really hate anything, but just some bits were a bit boring, but I can't remember which bits. Just sometimes, just sitting there talking and sometimes it didn't really relate to you so you couldn't give any input to the conversation. You just need to do practical things and get everyone involved and just make them talk about if they have problems and see if they can talk about them.

**INTERVIEW 16 - female:**
**Can you tell me what you remember the RAP program being about?**
It was trying to make you feel better about yourself and dealing with your problems. Trying to teach you what to do, anything you had on your mind. If you had something on your mind, how to deal with it.

**What did you like most about the program?**
It was good how everyone sat down and talked about stuff, but it was hopeless when no one started talking, because some people just sit there and wouldn't say anything and that didn't really help, but when everyone started talking that was okay.

**What aspects of the program have you found to be most beneficial in your life?**
It's made me think about things twice, back then, but then it sort of goes. At the time, 3 months ago, it was in your head. You thought about it after Thursday. Since then and now, you've changed a lot over 3 months.

**What didn't you like, what would you change?**
It dragged on a bit, with people who didn't want to get involved, they were trying to make them get involved, it wasn't right, because they didn't want to be there and they were making a mock of it. Relate it more to….if it went into smaller aspects, like brushed on them and then if people showed interest go into that specific topic more.

**INTERVIEW 17 - female:**
**Can you tell me what you remember the RAP program being about?**
How to deal with situations, if you're in an argument or something like that, how to fix it and not just by using anger, how to solve it.

**What did you like most about the program?**
I thought it was good when we were in a group, to hear other people's suggestions and how they deal with things and what they do and just to know that you're not the only one. I liked that.

**What aspects of the program have you found to be most beneficial in your life?**
Sometimes I just think why I'm angry at the person, I wouldn't know why, I wouldn't think about them or how they're feeling so that's kind of helped me.

**Any examples of specific examples where you have used the skills from RAP?**
When a friend of mine said something that hurt me, but she said it for a reason because she was sticking up for someone else as well. I was really angry at her, she apologised and said to me why she said it but I was still angry at her. But then I realised why she said what she said. Because I told her how I felt and she told me why she said it. Before I probably just wouldn't have talked to her at all, I wouldn't have said how I felt, I would have just acted normal.

**Have other people noticed any changes in you?**
I'm not really sure. Maybe some people.

**What didn't you like, what would you change?**
Some of the situations they gave us, I thought they were too easy, like with our group we all knew how to solve it, they weren't really something that we were stumped on. I thought it (the program) was good - at the time people think it's not going to help you but in the future it would help you. Most people probably didn't like it because it was during sport time.

**INTERVIEW 18 - male:**
**Can you tell me what you remember the RAP program being about?**
Our group did, like mainly self esteem, that kind of thing. Yeah, suicide, just talked about… group discussions.

**What did you like most about the program?**
It was just good to sit down and talk to everybody. The games were okay - some if them were a bit young.

**Any examples of specific examples where you have used the skills from RAP?**
Not really, but it's good to know about it, that we've done the course.

**What didn't you like, what would you change?**

In some parts it was a bit boring. Personal judgement - some of it interests you and some of it doesn't. Some parts just didn't interest me. It was good, but it's probably to improve it.

**INTERVIEW 19 - male:**

**Can you tell me what you remember the RAP program being about?**
Just about how to cope with problems and stuff.

**What did you like most about the program?**
I enjoyed it all really, I just found it fun to be with your friends and talking about problems and stuff.

**Any examples of specific examples where you have used the skills from RAP?**
No

**Have other people noticed any changes in you?**
No

**What didn't you like, what would you change?**
I didn't not like anything really. I got something out of it for sure, like finding out more ways to cope with problems and calm down and stuff.

**INTERVIEW 20- male:**

**Can you tell me what you remember the RAP program being about?**
The drug use and how to prevent it and also about suicide and just what to expect, like how to watch out for people who might do it.

**What did you like most about the program?**
I have no idea. It was alright I suppose, but I didn't like the time that it was at, during sport time.

**Any examples of specific examples where you have used the skills from RAP?**
I haven't really had to use them. Maybe the angry part. Just when I've got into trouble, I've just calmed down. I think I would have changed slightly.

**Have other people noticed any changes in you?**
Not that I know of.

**What didn't you like, what would you change?**
Some of it may have been too impersonal (personal??) like talking about stuff when other students were there.

**INTERVIEW 21 - male:**

**Can you tell me what you remember the RAP program being about?**
It was about how to, learn about our self esteem, how we feel about ourselves, how our attitude is to other people.

**What did you like most about the program?**
When we could freely express ourselves with knowing that it's not going to go anywhere.

**Any examples of specific examples where you have used the skills from RAP?**
I get into a lot of arguments with my brother and sister but now I look to what will benefit me and I say 'okay what are they going through' so I don't get so upset as much. Before it used to be always my way.

**Have other people noticed any changes in you?**
Yeah, they (siblings) they I am a little more mature. I just get along with them better.

**What didn't you like, what would you change?**
I don't know - we missed out on sport! I've got nothing against it, it wasn't all that bad. I definitely got something out of it.

**INTERVIEW 22 - male:**
**Can you tell me what you remember the RAP program being about?**
Learning to deal with problems that you're having at school, things like that. Getting friendships in your group with people that you don't usually hang around with.

**What did you like most about the program?**
The games were sometimes pretty fun.

**Any examples of specific examples where you have used the skills from RAP?**
If a brother or a friend does something stupid I just think about keeping calm and not going overboard because later on you think, why did I do that for. Before I would have gone over the top and gotten angry.

**Have other people noticed any changes in you?**
Probably haven't noticed it.

**What didn't you like, what would you change?**
Sometimes it got a bit boring, some people just didn't co-operate. Sometimes they didn't get into the things that we were doing, they didn't want to get involved in it so the whole group suffered. Probably, get outside and do some things, instead of staying in the classroom and maybe extend lunch and make it a bit shorter (the program) because sometimes it lingered on, towards the end. It started off the first 45 mins you thought it was pretty good but then towards the end you got a bit bored.

**INTERVIEW 23 - male:**
**Can you tell me what you remember the RAP program being about?**
Trying to find self confidence and self esteem and problems that you have.

**What did you like most about the program?**
The teacher's way of putting things, the way they explained things.

**Any examples of specific examples where you have used the skills from RAP?**
When you're in trouble, when you get blamed for something you haven't done with a teacher. I called somebody something and he went and told the teacher and for no reason. I wasn't too happy. I tried not to get angry. I just didn't think about it. Before I maybe would have got angry.

**Have other people noticed any changes in you?**
Not that much.

**What didn't you like, what would you change?**
Sometimes it was boring, some weeks it was good, some not so good. It's set out good but I don't know…probably have more activities, more practical activities. I probably just learnt a couple of different things.

**INTERVIEW 24 - female:**
**Can you tell me what you remember the RAP program being about?**
I think it was about getting us so we don't stress if there were exams or anything like that and it kind of helps. I think they chose people that I don't really talk to and no one else in the group, so you kind of know people in the grade more so that was kind of good to find out about them.

**What did you like most about the program?**
I think I like the fact that you get to talk to someone that you've never talked to before. It was surprising because they were nice and all.

**Any examples of specific examples where you have used the skills from RAP?**
Yeah if I have fought with my friends I think about it more and put the views into it and it will help. I had a bit of a silly fight with my friend and it kind of helped sort it out so it was good.

**Have other people noticed any changes in you?**
I haven't really changed that much, probably not physically but in my mind.. that's about it.

**What didn't you like, what would you change?**
There was a few things where you don't really want to tell people, like you had to write answers down and she'd say read them out and you don't really want to. Sometimes it's not personal but some of the things are and you're kind of embarrassed about it. Probably do a few more things where people can get involved and relate to. Some of the games were a bit childish.

**INTERVIEW 25 - male:**
**Can you tell me what you remember the RAP program being about?**
Self esteem and stuff like that. I can't remember exactly.

**What did you like most about the program?**
Games were pretty fun, the activities.

**Any examples of specific examples where you have used the skills from RAP?**
No, not really.

**Have other people noticed any changes in you?**
No

**What didn't you like, what would you change?**
It took sport. I can't remember exactly what was boring. Do more activities and stuff.

**INTERVIEW 26 - male:**
**Can you tell me what you remember the RAP program being about?**
Building self esteem, how to deal with problems and situations.

**What did you like most about the program?**
Probably the party at the end, just got to meet new people.

**Any examples of specific examples where you have used the skills from RAP?**
No not really, I haven't really had much of a chance to do anything.

**What didn't you like, what would you change?**
It was during sport, I was pretty angry about that because I look forward to sport on Thursdays. I didn't get to go with my friends (in the RAP group). Make it less serious, a bit more fun. See what everybody likes and then do something like that. I got something out of it. I can use it if I'm in one of those situations then I know what to do.

**INTERVIEW 27 - male:**
**Can you tell me what you remember the RAP program being about?**
About helping teenagers with problems, family matters they might have trouble with.
**What did you like most about the program?**
Some of the activities were fun to do - some were a bit boring, a bit kid like.

**Any examples of specific examples where you have used the skills from RAP?**
Probably did (use some of the skills) but without realising.

**Have other people noticed any changes in you?**
Probably, friends and family.

**What didn't you like, what would you change?**
Some of the activities were a bit boring, more for younger kids. Do more activities to make it more interesting.

**INTERVIEW 28 - male:**
**Can you tell me what you remember the RAP program being about?**
I can't really remember, I know they asked a lot of the same questions but I can't remember what we actually did. It was about self esteem.

**What did you like most about the program?**
Not much. I would have rather been doing sport but that's what happens.

**Any examples of specific examples where you have used the skills from RAP?**
Sometimes, no real examples.

**What didn't you like, what would you change?**
Nothing really. Make it more fun so people can get involved, more physical, get up and do stuff. It probably didn't need to be done (the program).

**INTERVIEW 29 - male:**
**Can you tell me what you remember the RAP program being about?**
Self esteem, helping you to (difficulties), getting to know different people.

**What did you like most about the program?**
Just getting together with your friends and having a laugh and learning at the same time. Learning how to work as a team to do different things. The games.

**Any examples of specific examples where you have used the skills from RAP?**
I've used a couple. Just not getting along with some of the kids in the yard, instead of … I learnt to walk away.

**Have other people noticed any changes in you?**
Don't think so - no one's mentioned it.

**What didn't you like, what would you change?**
Nothing much, I enjoyed mostly everything.

**INTERVIEW 30 - female:**
**Can you tell me what you remember the RAP program being about?**
Self confidence, what you can do if your upset and who to go to, feeling good about yourself, I guess.

**What did you like most about the program?**
I think the discussions were good, and I liked those little pigs, they were really cute!

**Any examples of specific examples where you have used the skills from RAP?**
Sometimes I think about it, I can remember what we did, but I don't think I've used it all too much.

**What didn't you like, what would you change?**
Some of the things, I already knew them before. Like if I'm in trouble I know who to call, I already knew that. Year 9, we know most of the things already, maybe you put it to year 7. I think it was helpful, all the talking that we did and different situations…

**INTERVIEW 31 - male:**
**Can you tell me what you remember the RAP program being about?**
Getting better self esteem.

**What did you like most about the program?**
The party. Making paper aeroplanes.

**Any examples of specific examples where you have used the skills from RAP?**
Not really.

**What didn't you like, what would you change?**
It was boring. Having to talk about everything for so long, not enough activities.

**INTERVIEW 32 - male:**
**Can you tell me what you remember the RAP program being about?**
Building up our self esteem, getting to work in groups.

**What did you like most about the program?**
The games - had to try and get out of the knots.

**Any examples of specific examples where you have used the skills from RAP?**
Not really.

**What didn't you like, what would you change?**
It was boring, it wasn't interesting. Have more games.

**Is it better to have mixed or single sex groups?**
Mixed because so you get to know everyone.

**INTERVIEW 33 - female:**
**Can you tell me what you remember the RAP program being about?**
Mainly about self confidence and feeling good about yourself. Learning special techniques to calm yourself.

**What did you like most about the program?**
The games, most of it was, well not really boring but not really interesting either. The games were good.

**Any examples of specific examples where you have used the skills from RAP?**
It teaches you to sort it out in different ways which is better than just going off at someone.

**What didn't you like, what would you change?**
Discussing it - it was good but it was kind of boring. Probably have better topics, more interesting games where you get up and move around instead of just sitting there talking. Like not just on staying calm, but on actual teenage life.

**INTERVIEW 34 - female:**
**Can you tell me what you remember the RAP program being about?**

Basically about self esteem, what you think of yourself, and that you shouldn't really worry about what anyone else thinks.

**What did you like most about the program?**
It was fun and you got to know things about people that you wouldn't… well a lot of people in my group were people that I wouldn't usually talk to so I got to know people better.

**Any examples of specific examples where you have used the skills from RAP?**
No not really, I can weasel my way out of cleaning my room but that's about it. I'm more aware of my little habits, like twitching. I tend to fidget.

**Have other people noticed any changes in you?**
Yeah a couple of people have said 'oh she's not fidgeting' because I'm usually (fidgeting).

**What didn't you like, what would you change?**
I didn't like that it was in my sport time because I had my group of friends that did sport from this school but there was also people from other schools and we used to join up and because it was during our sport time we didn't get too. It was interesting, it was a new experience. First impression everyone thought it wouldn't be that good, but it was pretty good considering a lot of the people that were helping us were… they weren't that much older than us, they were like 20. I don't think I'd change anything, it's pretty good, it's in a basic format so everyone can understand it. I think it was necessary (the program) because everyone needs to know what they need to do to improve themselves and some people think of themselves as very low so it's like a booster shot to them.