RESILIENT VICTIMS OF SCHOOL BULLYING: PSYCHOSOCIAL CORRELATES OF POSITIVE OUTCOMES

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DECLARATION OF AUTHORSHIP

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and ethics procedures and guidelines have been followed.

Signed

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Emma Wade
Date:

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DISSEMINATION INFORMATION

Sections of this thesis have been disseminated as refereed articles and conference presentations. The candidate has taken primary authorship on the papers and subsequent co-authors have been supervisors (Dr John Reece; Dr Emma Little).

Refereed Conference Proceedings

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ABSTRACT

Bullying is a phenomenon that has serious psychological consequences for victims, including low psychological wellbeing, poor social adjustment, psychological distress, and physical illness. Bullying has become a topic of increasing public concern and the focus of considerable research in Australia over the last decade. Parallel to this rise in interest in bullying research is a rise in research into resilience. Research has indicated that children facing distress and trauma will show a range of responses; some will regress, while others tolerate and even continue to thrive in the face of significant trauma, and it is this second group that are described as being resilient. It was therefore postulated in the research described in this thesis that individuals exposed to bully victimisation may not all react in the same manner; that is, not all would succumb to the typical negative effects of being a victim of school bullying. While previous studies have noted the difference in reactions to bullying, this is the first study to investigate whether resilient victims can be identified, and, if so, profile their key psychosocial characteristics. Based on this notion, it was predicted that victims of bullying could be taught a set of skills and attitudes that would build their resilience to the expected effects of bullying.

The present research consisted of two studies. Study 1 had two phases. The first phase of Study 1 identified 'resilient victims' of school bullying by assessing 867 participants on both their levels of victimisation and their levels of general wellbeing (labelled 'Positive Health') using a battery of questionnaires. Participants were assigned to one of four groups: resilient victims, non-resilient victims, healthy non-victims, or poor-health non-victims. These categories were based on splits of 1 *SD* from the mean for victimisation, and median splits for positive health. The first phase resulted in four groups of adequate size being formed for further examination. From the original sample of 867 students, 111 were categorised into one of the four groups, and completed a second questionnaire package. All measures were self-report. The second phase examined the relationships between these resilience groups and eight psychosocial correlates with theoretical links to general resilience: individual protective factors, optimism, coping, social support, social skills, self-esteem, self-concept, and emotional intelligence. The results showed that there were strong and significant discriminators between resilient and non-resilient victims of bullying, particularly on social and cognitive factors such as optimism, productive coping, self-concept and self-esteem, and social variables (i.e., social skills and support).

Based on the results of Study 1, the ten variables that differentiated most between the resilient and non-resilient victims of bullying (in terms of their effect sizes) were identified. The aims of the second study were to 1) develop a cognitive-behavioural group intervention program to teach social skills, perceived social support, self-esteem, optimism, and effective coping skills, to adolescent victims of school bullying; and 2) to investigate the effectiveness of the group intervention program in teaching this set of resilience skills. Ten year 7 and 8 students who reported negative consequences to high levels of bullying participated in the intervention program. Results indicated that the program had positive effects on the skills and attitudes that the program targeted. The program also appeared to have positive effects on the participants' levels of victimisation and general wellbeing; however, the lack of a control group meant that no causal statements could be made, and only tentative conclusions could be drawn.

Overall, the current research has indicated that victims of school bullying vary in their responses to the bullying; some succumb to the typical negative effects of being bullied, some function at acceptable levels, and others even report high levels of general wellbeing despite repeated victimisation. The difference between those victims who show the typical negative effects of bullying, and those who demonstrate resilience appears to relate to a set of skills and attitudes that provides victims with a buffer against the negative consequences associated with being a victim. These skills and attitudes include: being optimistic, using productive coping strategies, having a healthy self-esteem and self-concept, possessing social skills, and perceiving a high level of social support in one's life. These skills and attitudes also appear to be amenable to change through participation in a cognitive-behavioural group-based intervention program.

CHAPTER 1

Bullying

Definition

There is no universally agreed-upon definition of bullying; however, Olweus, who is considered the "pioneer in bullying research" (Dake, Price, & Telljohann, 2003, p.173) has defined bullying, or peer victimisation, in a way that has been generally well-received and widely used. According to Olweus (1994), bullying occurs when a student is "exposed, repeatedly over time, to negative actions on the part of one or more other students" (p. 1173). A negative action is when someone either attempts to, or intentionally inflicts, discomfort or injury on another student. This can be achieved through several means. Negative actions can be physical contact (such as hitting or kicking), words (e.g., teasing, and calling names), or obscene gestures or facial expressions. Negative actions also include the intentional exclusion of a student and the spreading of rumours. In order for behaviour to be described as bullying, there must be an imbalance in power (that is, an asymmetrical power relationship) so that the student exposed to the negative action has difficulty defending him or herself, and is somewhat helpless against the harassment (Olweus, 1994). This way, bullying cannot apply to a conflict between students of equal physical, mental, or emotional strength (Dake et al., 2003). Most of the recent research into bullying has made use of this definition (e.g., Borg, 1999; Dake et al., 2003; Glover, Gough, Johnson, & Cartwright, 2000; Kristensen & Smith, 2003; Mynard & Joseph, 2000; Rigby, Cox, & Black, 1997). Types of bullying can generally be divided into the following categories: direct and physical (e.g., hitting, pushing, kicking, and damaging property); direct and verbal (e.g., name calling, teasing, being laughed at, and threatening); or indirect (e.g., spreading nasty rumours, purposefully excluding an individual from a social group, sending nasty/rude text messages or emails, and placing information about the victim on the internet) (Rivers & Smith, 1994).

Prevalence

The incidence of bullying in schools has been extensively researched across several nations. The most notable early work in the quantitative assessment of the extent of bullying was carried out by Olweus in Norway. Through the use of his questionnaire on a national basis, it was established that approximately 15 percent of school students (from a sample of over 130,000 Norwegian students) were involved in bullying perpetration or victimisation "now and then" or "more frequently" (Olweus,

1994). By this criterion, about nine percent of the respondents were identified as victims, and approximately seven percent were identified as bullies. A figure of 20 percent for being bullied “sometimes or more” was also reported in Britain (Boulton & Underwood, 1992; Ziegler & Rosenstein-Manner, 1991), together with a figure of 17 percent for bullying others. Juvonen, Graham, and Schuster (2003), found that six percent of students were both victims and perpetrators of bullying, thus being labelled ‘bully-victims.’

With regards to the relationship between age and bullying, several studies have examined the preadolescent and adolescent cohorts, again across various nationalities. The prevalence of victimisation in Finland among middle schoolers (Years 6 – 8) was found to be 4.7 percent in a sample of 189 students (Salmivalli, Lappalainen, & Lagerspertz, 1998). Within the same middle school years, a sample of 6,758 students from the United Kingdom was studied by Whitney and Smith (1993), and a prevalence of 27 percent was found. A further study of this age cohort in the United States found that between 9 and 11 percent of middle school students were bullying others “sometimes” or “more frequently.” Amongst older students (secondary school, Years 9 – 12), studies have been conducted in both Britain (Salmon, James, & Smith, 1998) and Australia (Peterson & Rigby, 1999), and each nation’s prevalence was found to be 4.2 percent and 25 percent respectively. Despite the obvious variations in reported involvement in bullying, which are largely due to variations in definitions and methodology, it can be reliably concluded that the incidence of bullying victimisation is within the range of approximately 4 to 27 percent.

Interestingly, Hazler, Hoover, and Oliver (1991) reported that when students were asked to indicate the year level in which victimisation was most prevalent and most severe, students identified the middle school years (Years 7 – 9) as most prevalent (47 percent), Years 4 – 6 as second most prevalent (31 percent), and Years 1 – 3 (13 percent) and Years 10 -12 (9 percent), as the least prevalent.

These statistics suggest a significant proportion of school students, from several nations, are being regularly victimised. However, according to Remboldt (1994b, cited in Clarke & Kiselica, 1997), these statistics may not be an accurate representation of the frequency of bullying, and since many incidents of bullying go unreported, or are underreported, they may be a gross underestimation of the actual prevalence. This is largely due to the fact that bullying is, by its very nature, a secret activity, and therefore it is going to be difficult to obtain accurate prevalence figures

(Byrne, 1994). Both Austin and Joseph (1996) and Whitney and Smith (1993) concluded, however, that a reliable method for establishing the incidence of bullying, particularly from middle school age upward, was the use of anonymous self-report questionnaires.

Measurement Issues

Recently, school violence has become far more public, mostly due to events such as school shootings. It is a major concern, therefore, that the rapidly expanding literature on bullying has focused solely on the need to prevent school violence, with little or no attention being given to the methodological and measurement issues associated with bullying research (Furlong, Morrison, & Pavelski, 2000, cited in Furlong, Morrison, Cornell, & Skiba, 2004). With a greater understanding of the types of bullying that occur and which individuals are likely to become victims, more specific interventions can be developed and appropriately targeted. This section will address the issue of the assessment of bullying within the school setting.

The obvious first step to developing an effective bullying prevention program is to design an assessment procedure to identify both bullies and victims. There are numerous methods for assessing bullying in schools, including observations, teacher ratings, sociometric procedures, questionnaires, and surveys, and self-report measures. These will be discussed in detail below, with particular attention being paid to each method's advantages and disadvantages.

Observations – Unstructured Observations, Structured Observations, and Interviews

Unstructured observations are possibly the simplest approach to assessing bullying in schools. The observer simply selects a time and place in which bullying is likely to occur (e.g., the playground), and then attempt to be unobtrusive while observing students. It is recommended that the observer varies the time, place, and context in which the observation takes place, in order to gain an accurate picture of the bullying situation for the particular school. Several aspects of the bullying process can be assessed using this method, including a student's social status, social isolation of students, and social withdrawal (Evans & Eder, 1993; Kinney, 1993; Merton, 1996).

Structured observations, on the other hand, have an established procedure. An example of such a procedure is the use of the "focal individual sampling" observation method devised by Altman (1974, cited in Crothers & Levinson, 2004). Boulton (1993), used this method to observe student's bullying behaviour in the

playground. Each child in the study (either 8 or eleven years) was observed as a focal subject for the entire time they spent in the schoolyard at recess. Each observation session was approximately 40 minutes in duration for each participating child. The purpose of the study was to directly observe aggressive fighting in the schoolyard. The observation assessed how often fights occurred, how long the fights lasted, and also what the fight's apparent causes were. A significant proportion of the fights amongst the 11 year olds were caused by aggressive retaliations to teasing (Boulton, 1993).

Another form of structured observation is the use of simulated play settings. This method can help researchers develop a better understanding of the behavioural patterns that contribute to peer victimisation by observing students' conversations, their style of play, their levels of aggression, and specific bullying situations (Schwartz, Dodge, & Coie, 1993).

As with any assessment method, observational assessment has both advantages and disadvantages. Observational methods tend to be cost effective, as they can make use of materials and staff that schools already have, and can produce an abundance of useful information. The downside to observational techniques is that when definitions are not made perfectly clear, the objectivity of the observation can be compromised (Crothers & Levinson, 2004). It has also been found that observational measures do not tend to correlate well over time. This could be due to the limited number of observations that are conducted, and that the behaviour being observed is specific to the particular situation. Because of the secretive nature of bullying, there is a high likelihood that observational methods will not capture the true prevalence and extent of the behaviour (Colvin, Tobin, Beard, Hagan, & Sprague, 1998). It is known that numerous bullying situations take place in areas in which an observer would not be permitted; for example, restrooms and change/locker rooms. In addition it is likely that the presence of an observer may in itself have an impact on the behaviour in the observational setting. The observer may provide a form of perceived surveillance/authority that leads to the bullying behaviour being reduced. Therefore, any data collected through observation could be deemed to be only a public, or normative, perspective of the bullying situation.

Interviews are another qualitative assessment procedure that can be used to gather information about bullying in a school. They can by used to gauge the prevalence of bullying, the perceived impact it has on students' development, and the effectiveness of bullying interventions. Interviews have also been used to establish

the details and characteristics of bullying incidents, the perceived relationships between victims and perpetrators, and the typical emotional and behavioural responses of victims (Casey-Cannon, Hayward, & Gowen, 2001). One clear advantage of interviews is that if non-school personnel conduct the interview, the students tend to reveal far greater amounts of information than they would had school staff conducted the interview. Students also have the opportunity in interviews to discuss aspects of bullying that may not be targeted through other forms of assessment (Glover et al., 2000). However, one problem with interviews is that their validity may be compromised due to the self-selected nature of the data (Crothers & Levinson, 2004). There is no way to assess whether students are reporting all relevant bullying-related information, and whether the information they do report is accurate. Another problem is the subjective nature of interviews. Even if the interview is formally structured, the individual interviews may elicit vastly different responses from students due to individual differences. Finally, the major limitation of interviews is that they take considerable time to conduct, particularly if an adequate sample of the entire student population is to be interviewed. In summary, the three techniques described (unstructured observations, structured observations, and interviews) are all susceptible to subjective bias because of the preconceptions and personal viewpoints of the researchers.

Teacher Ratings

Teachers are in a valuable position to provide important information about the bullying situation in a school. The typical procedure for obtaining teacher ratings is to either simply ask teachers to identify students who are either victims or perpetrators of bullying, or to ask teachers to identify students who match certain behavioural descriptors (Crothers & Levinson, 2004). There are differing opinions among researchers about the amount of confidence that can be placed in teacher ratings. While Olweus (1993) and Largerspertz, Bjorkqvist, Berts, and King (1982) have both expressed confidence in the technique, other researchers believe that teachers may seriously underestimate the actual prevalence of bullying in their school (Smith & Sharp, 1994). Some researchers believe that teachers may have difficulty discerning what actually constitutes an act of bullying from other play, and also that their responses may reflect biases due to their personal experiences with the students (Hazler, Carney, Green, Powell, & Jolly, 1997; Pellegrini & Bartini, 2000). If teachers only observe a student in one specific setting or context (e.g., in their particular class), then biases are undoubtedly going to develop about that student's behaviour.

Also, teachers may perceive that if they report levels of bullying then this may reflect poorly on them; that is, they may perceive that the researcher will assume that they are not doing enough to prevent bullying in their classroom.

Teacher ratings could be seen as being an appropriate measure when information about bullying needs to be gathered quickly and without difficulty. This is because teachers can rapidly assess a large number of students, at minimal cost, and their responses can be compared with other teacher ratings. Some researchers, including Olweus (1993), have offered the view that teacher reports of bullying prevalence are accurate. Other researchers, however, are of the belief that teachers tend to greatly underestimate the actual prevalence of bullying (Smith & Sharp, 1994). Therefore, because of this ongoing debate about the accuracy of teacher ratings, it has been suggested that they be used only in conjunction with other assessment techniques, thereby adding more cost and time to research projects (Crothers & Levinson, 2004).

Sociometric Procedures, Questionnaires, and Surveys

Examining students' social status amongst their peers is another technique used to ascertain the level and severity of bullying in a school. There are several ways in which this information can be gathered. Bowers, Smith and Binney (1994), used a method that involved showing students photographs of their classmates and asking them to place them first into two piles; those who are bullies and those who are not, and then again asking them to create two piles; those who are victims and those who are not. Boulton and Smith (1994) used a similar technique, but asked students, while looking at photographs of their classmates, to match the photographs to certain behavioural characteristics, including ones that described bully and victim categories. Using a less direct technique Pakaslahti and Keltikangas-Jarvinen (2000) required students to complete a peer nomination questionnaire, which included questions related to direct aggression, indirect aggression, and prosocial behaviour. The students were required to nominate three boys and three girls from their class who matched each item.

Research has shown that students are quite capable of identifying other students in their class who are either victims or perpetrators of bullying. Some studies have reported the psychometric qualities of peer nomination and sociometric assessment as being satisfactory (Pakaslahti & Keltikangas-Jarvinen, 2000). However, there are ethical concerns surrounding the administration of sociometric measures with school-aged children. The main concern is that students are not

placed at undue risk when such measures are administered (Young, Boye, & Nelson, 2006). There may be risk of harm to students' self-esteems and their social status following the use of sociometric measures in bullying research. This concern exists because of the possibility that students might share their responses with their fellow students. Ethical guidelines for the use of sociometric measures include gained informed consent from both parents of the students and the participants themselves, and a strong emphasis on the confidentiality of the participants' responses. Past research has demonstrated that when such ethical guidelines are adhered to, no significant changes differences are seen in peer-group interactions following the use of this type of measure (Bell-Dolan & Wessler, 1994; Iverson, Barton, & Iverson, 1997). Despite the apparent adequacy of sociometric measures to ascertain the level of bullying in schools, other researchers (e.g., Colvin et al., 1998; Olweus, 1993), contend that self-report student surveys are the best means to assess the prevalence of bullying in schools.

Self-Report

Some researchers believe the best way to gain an accurate picture of bullying in a school is to survey the actual participants themselves (including victims, perpetrators, and bystanders). Espelage and Swearer (2003), report that their preferred method of bullying assessment is self-report. The researchers ask students directly, while assuring them of the confidentiality of their information, about their involvement in bullying situations. This is only one of numerous ways to obtain self-report information about bullying. As stated previously, both Austin and Joseph (1996) and Whitney and Smith (1993) believe that the most reliable method for establishing the incidence of bullying, particularly from middle school age upward, is the use of anonymous self-report questionnaires. As with the other assessment techniques described above, self-report has both strengths and weaknesses. Perry, Kusel, and Perry (1988) reported concerns about the use of self-report after a small number of participants in their study reported extremely high levels of perceived victimisation, while their peers and teachers did not perceive them to be victimised. One could argue that there needs to be a high level of congruence in reports from both participants and outside observers before the information can be deemed useful. However, if a student perceives that they are being targeted by perpetrators, then they are just as likely to need intervention as those who truly are being victimised.

Self-report also has several strengths. This assessment technique does not require a great deal of time commitment by those involved (researchers, participants, school staff, or parents); it is relatively inexpensive (depending on the cost of the questionnaires used), and it requires little labour. Self-report has the advantage of directly targeting the feelings and experiences of the students involved (Kim, Koh, & Leventhal, 2004). It is well documented that students involved in bullying experience strong emotional reactions and develop lasting memories of their experiences (Ladd & Kochenderfer-Ladd, 2002); experiences that may not be accessed as thoroughly through other assessment techniques. Using self-report also has the advantage of allowing data to be collected and compared over multiple points in time.

The obvious first step to combating bullying problems is to ensure that assessment procedures are both comprehensive and accurate. For anti-bullying interventions to be successful, there must be a sound understanding of the nature of the bullying, how often it is occurring, which students are involved, and where it occurs in the school. This can be accomplished with the use of effective assessment tools and methods. However, if *preventative* measures are to be taken, then having a thorough understanding of the possible causes of bullying is necessary.

Possible Causes of Bullying

With regard to peer aggression at school, problems with bullying emerge through a complex process of social interactions involving parents, peers, and teachers (Dodge, Coie, Pettit, & Price, 1990; Stevens, Van Oost, & De Bourdeauhuij, 2001). Unfortunately, as the majority of studies in the area of bullying are correlational in nature, it is not possible to attribute causation to the findings. There are, however, numerous factors that have been theorised as causes of bullying in schools.

Personality

With regard to the personal(ity) characteristics that usually describe bullies and victims, a relatively consistent picture of each has emerged. Olweus (1973) originally found that the typical victims were more anxious and insecure than other students. Further, they were often cautious, sensitive, and quiet. He found that victims suffered low self-esteem, and had a negative view of themselves and their involvement in bullying. This has been repeatedly support in more recent research including that of Craig (1998). Another factor associated with students being bullied was extreme introversion (Slee & Rigby, 1993). There is a growing body of evidence suggesting that student' reactions to bullying are related to the continuation of their victimisation

status. Kochenderfer and Ladd (1997) examined which behavioural reactions lead to a reduction in victimisation, and which reactions lead to maintenance of victim status in kindergarten children. The children were assessed at two points in time to establish victimisation levels. Those children whose victimisation levels had decreased at the second assessment time were labelled as 'unstable victims', while those whose scores had not changed were labelled 'stable victims.' These two groups were then compared on their reaction to being bullied. The results revealed that the 'stable victims' used significantly more 'fighting back', while 'unstable victims' reported 'having a friend help' them significantly more.

It has also been suggested that both students' aggression (Perry et al., 1998) and their passivity (Schwartz et al., 1993) may increase the risk of victimisation. It has further been argued that both aggressive reactions and passivity function to maintain the student's role as a victim of bullying. The perpetrators either perceive the victims to be of no threat of retaliation, or are provoked by their aggressive and volatile nature (Kochenderfer-Ladd, 2003).

A commonly held view among psychologists and even the wider community is that bullying is caused by underlying anxiety and insecurity in the bullies (Olweus, 1984). Research has failed to support this view. Bullies have been found to have unusually low levels of anxiety and insecurity, or report average scores on these dimensions (Olweus, 1984). Glew and colleagues (2000) found similar results during their study in 2000. Their research suggested that perpetrators of bullying tend to have either average or slightly below average levels of insecurity. Olweus' (1973) research found that a distinctive characteristic of the typical bully was their aggression towards peers. Further, bullies were found to be often aggressive towards adults as well, both teachers and parents. Generally, bullies had a more positive view of violence than other students, and were characterised by impulsivity and a strong need to dominate others. Some Australian research has found that bullying behaviour is associated with low levels of empathy, as indicated by relatively high scores on the P factor in Eysenck's Personality Inventory (Slee & Rigby, 1993). Students who were identified as bullies were also found to be generally uncooperative in many areas of life, a characteristic they shared with students who were regularly victimised (Rigby, Cox, & Black, 1997).

Interesting findings on empathy levels have emerged from some recent Australian research (Wade & Reece, 2004). It was found that for those students classified as being involved in bullying others, empathy scores were very strongly

influenced by whether they were also the victims of bullying. Those bullies who were also victims scored the lowest levels of empathy overall; yet, those participants who reported low levels of victimisation and high levels of perpetration had the highest empathy scores. At first glance, these results appear to be counterintuitive. It would seem theoretically logical to expect that those children involved in bullying with no associated victimisation would have the lowest levels of empathy, while children who were victims or not involved would score the highest. However, some recent arguments may assist with a possible interpretation of these results. Sutton and colleagues (1999), for example, proposed that children who do not get involved in bullying situations are not able to understand the difficulties that their bullied peers are experiencing, and therefore cannot empathise with them. With regard to the perpetrators of bullying, several authors (e.g., Arsenio & Lemerise, 2001; Sutton, Smith, & Sweetenham, 1999; Warden & MacKinnon, 2003) have argued that some bullies are exceptionally good at 'perspective taking', and are more than capable of understanding the mental states of others, but believed this did not necessarily translate to empathic behaviour. That is to say that the bullies may possess 'cognitive' empathy - they comprehend the emotions of others, but do not possess 'affective' empathy - the capacity to experience the emotions of others (Jolliffe & Farrington, 2006). It has been proposed that this ability to understand the emotional and mental states of others could be used by perpetrators to 'more effectively' bully their victims (Wade & Reece, 2004).

It is possible, however, that these common characteristics are *caused* by the constant victimisation, or by the reinforcement gained through bullying behaviour, or indeed related to a third unnamed factor. Schwartz, Dodge, and Coie (1993) have suggested that the characteristics used to describe victims might actually be the characteristics that lead them to be bullied. However, it appears obvious that repeated harassment by peers must have considerable effects on the victims' anxiety and insecurity levels. There is yet to be definitive research done in this area, possibly because it would require lengthy longitudinal studies.

School Environment

Factors relating to the school environment have also been implicated in the search for the cause of bullying. A commonly held view is that bullying problems are a consequence of large class sizes or school size (Olweus, 1993, 1999b; Rutter, 1983). Close research analysis of this view has shown no reliable association between level of bullying problems and school or class size (Olweus, 1993a; Rutter,

1983). It has also been commonly maintained that bullying is a consequence of competition and striving for grades in school (Olweus, 1983). More specifically, it has been argued that the aggressive behaviour of bullies can be explained as a reaction to failures and frustration in school. Several studies have offered no support for the proposition that aggressive behaviour is a consequence of poor grades and failure in school (Olweus, 1983). Other authors have argued that the school environment can influence the amount of bullying occurring in the school. For example, Smith and Ananiadou (2003) reported that the school's general ethos would affect the amount of bullying, including whether they had an effective bullying policy in place.

Family Environment

Another factor that may play a part in predisposing some students to bully others is the family environment. Extensive research into the family background of Australian children involved in bullying problems has shown that bullies more frequently come from dysfunctional families in which there is relatively little sense of love, support or belonging, and where parents often criticise their children (Rigby, 1994). The family conditions under which many bullies have been reared include having families with negative emotional attitudes, who use physical punishment, and who are tolerant of aggressive behaviour (Olweus, 1999a). Olweus (1999a) hypothesised that bullies have developed a certain degree of hostility toward the environment, and such feelings and impulses may make them derive satisfaction from inflicting injury and suffering upon other individuals. Victims, on the other hand, are more likely to come from homes with a high level of intrusive demandingness, where children are given few opportunities to control social circumstances (Ladd & Ladd, 1998).

With regard to the home environment, numerous studies that have been conducted have resulted in conflicting findings. On the one hand, Sourander, Helstela, Helenius, and Piha (2000) found that parental level of education, socioeconomic status (SES), and family composition were not significantly related to bullying or victimisation, while Wolke, Woods, Stanford, and Schultz (2001) found a significant association between low SES and becoming a bully or victim. Bond, Carlin, Thomas, Rubin, and Patton (2001) found that victims were more likely to come from separated or divorced families, a finding not supported by Sourander, Helstela, Helenius, and Piha (2000).

Physical Appearance

A previous view (that has had relatively little research supporting it) was that victimisation was caused by the external differences in appearance of victims. Students who are perceived as being overweight, have red hair, wear glasses, or speak an unusual first language were predicted to be particularly likely to become victims of bullying (Olweus, 1978). This was a hypothesis that had previously received no support from empirical data (Olweus, 1978), and yet was still seen, by some, as a highly probable reason for victimisation (Olweus, 1978, 1993). There is now, however, a growing body of research that shows that having physical differences, such as a disability or being obese, can markedly increase the chances of being victimised (Smith & Ananiadou, 2003).

In summary, it is clear that children's experiences with their families, peer group, and school are associated with the development and maintenance of aggressive behaviour patterns, including bullying (Olweus, 1978, 1983, 1999a; Rigby, 1994). The problem of bullying at school, which is one type of aggressive behaviour, has numerous possible causes, but none with adequate and definitive empirical support (Farrington, 1993). By contrast, what does have significant research support is the knowledge regarding the consequences, or effects, of bullying for the victims.

Effects of Bullying – Short-Term

Although the causes of bullying remain somewhat unclear, the effects of bullying, both short- and long-term, have been well-researched and documented. Contrary to the popular belief (held by many adults, parents, and teachers included) that bullying is a normal, harmless behaviour for children, there is a myriad of evidence that bullying has the potential to cause immediate, as well as long lasting, harm to children (Remboldt, 1994a, 1994b, cited in Clarke & Kiselica, 1997). The effects of bullying tend to fall into one of four categories: low psychological wellbeing, social adjustment, psychological distress, and physical illness.

Low Psychological Wellbeing

As a category within the general effects of bullying, 'low psychological wellbeing' incorporates issues relating to students' self-esteem and negative emotional states (e.g., low life satisfaction). Many studies have examined the relationship between victimisation and self-esteem. Duncan (1999), Rigby and Slee (1991), and Tritt and Duncan (1997) have all noted that levels of self-esteem were lower in the victims of bullying, compared with the perpetrators of bullying. These findings were seen to be consistent with those of Rigby (1996), who reported that

victims tended to see themselves as less popular than bullies and those children not involved in bullying, and reported the lowest self-esteem levels. Further studies by Juvonen, Nishina, and Graham (2000) and O'Moore and Kirkham (2001) found that self-esteem negatively correlated with victimisation. To provide some support for bullying as a cause of the self-esteem problems, Slee (1994) found that primary aged children felt worse about themselves after a bullying incident than before, while Hodges and Perry (1999) reported that the greatest concern associated with repeated victimisation was low self-esteem.

Although causation is yet to be definitively identified, and probably never will be given design limitations, a longitudinal study conducted in the United States by Egan and Perry (1998) attempted to use somewhat more stringent and sophisticated methodology in their examination of the link between victimisation and self-esteem. Children were classified as victims based on ratings from their peers, while self-esteem was measured using a questionnaire. The questionnaire provided a global indication of self-worth, along with more specific aspects of self-worth, such as perceived social competence. Changes in self-worth of victims, as compared with non-victims, were assessed after a five-month interval. Analysis of the data showed that low levels of self-worth were a consequence of victimisation. The authors made the claim that the study "may be the first to show convincingly that actual maltreatment by significant others leads to an impairment of self-regard over time" (Egan & Perry, 1998, p. 307). Although one study is simply not enough evidence to attribute definitive causation, Egan and Perry (1998) were able to conclude that, "poor self-concept may play a central role in the vicious cycle that perpetuates and solidifies a child's status as a victim of peer abuse" (p. 299).

Along with lower levels of self-esteem, victims are also more likely to be more unhappy when compared with those children not being victimised (King, Wold, Tudor-Smith, & Harel, 1996, cited in Forero, McLellan, Rissel, & Bauman, 1999). In two different studies, using two different modes of assessing happiness, it was found that those students who had suffered repeated victimisation reported greater levels of unhappiness than those not exposed to such victimisation (Forero et al., 1999; Rigby, 2002). Together with higher levels of unhappiness, victimised students have also reported other negative emotions associated with their harassment. An Australian study conducted by Rigby (1997) required students to complete an anonymous questionnaire about their experiences of bullying at school, and how they felt after a bullying incident. Over 25,000 students reported that they had been victimised during

the school year. Some 32 percent of those victimised students reported that they had felt extremely angry about the bullying. Borg (1998) also reported that approximately 30 percent of the self-declared victims in his study indicated they had experienced negative emotions including vengefulness, anger, and self-pity. Rigby (1999) believes that it should come as no surprise that victims of bullying are likely to report a relatively low perception of their wellbeing.

Life satisfaction has also been examined in terms of being a result of peer victimisation. Flouri and Buchanan (2002) conducted a study of 1344 adolescent males in Britain. Participants were required to complete a questionnaire containing (among other surveys) items related to both victimisation status and levels of life satisfaction. The authors found that peer victimisation contributed significantly and independently to low levels of life satisfaction in the participants. A similar study conducted in the Netherlands (Verkuyten & Thijs, 2002) found a relationship between life satisfaction and victimisation by peers. The 1,090 participants were aged between 10 and 12 years and were recruited from 26 schools. Students completed a questionnaire package containing measures of general life satisfaction and peer victimisation status. A statistically significant negative correlation was found between being a self-identified victim of bullying, and also reporting low general life satisfaction.

Poor Social Adjustment

Within the 'poor social adjustment' category of the effects of bullying, the following issues will be discussed: student loneliness and withdrawal, academic problems, and behavioural and conduct problems. There have been numerous studies indicating that students who are frequent targets of bullies are at greater risk for a range of adjustment problems, including loneliness and withdrawal, and a number of school-related problems, such as an aversion to the school environment, absenteeism, and becoming an early school leaver (Boulton & Underwood, 1992; Graham & Juvonen, 1998b; Hawker & Boulton, 2000; Kochenderfer & Ladd, 1996a, 1996b; Reid, 1989; Slee, 1994). Behavioural problems have also been shown to positively correlate with being victimised in school (Haynie et al., 2001; Mynard & Joseph, 1997). Examples of such externalising behaviours include lying, fighting, and generally acting out in class (Hodges, Boivin, Vitaro, & Bukowski, 1999). With regard to the issue of students becoming withdrawn and lonely in association with being victimised, these internalising problems have been reported by numerous researchers (e.g., Boulton & Underwood, 1992; Graham & Juvonen, 1998b; Hawker

& Boulton, 2000; Hodges, Malone, & Perry, 1997; Kochenderfer-Ladd, 2003; Kochenderfer-Ladd & Wardrop, 2001a; Olweus, 1993; Slee, 1995). It has been reported that something of great concern is that “repeated victimisation produces insidious, potentially debilitating effects, including…social withdrawal” (Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004, p. 159).

With all these issues occurring during school hours, it would seem likely that victims would also suffer academically. Students who feel sick with anxiety, whose concentration is impaired, who are worried about when and where they might encounter their tormentors are unlikely to achieve their full potential academically or socially. The result of the study by Sharp (1995) suggested that as many as one third of young people who experience bullying may be affected in ways which could impact negatively on their personal and educational progress. However, the degree of the negative impact was not indicated. School-related adjustment problems include several issues including: feelings of aversion to the school environment, reluctance or refusal to attend school, and extended absenteeism or dropping out. Feelings of aversion toward the school environment, because of victimisation, tend to manifest themselves in a number of ways. Victims of bullying are likely to lose interest in school and school-related activities, and their grades or level of academic success may deteriorate (Hoover, Oliver, & Hazler, 1992). Bernstein and Watson (1997, cited in Crothers and Levinson, 2004) found that students who were repeat victims of peer harassment experienced short-term problems including difficulty concentrating and some had reported that they had developed a school phobia. Boulton and Underwood (1992) found similar results, in that victimised students were found to manifest a fear of attending school and reported feelings of being unsafe while at school. A study conducted by Kochenderfer and Ladd (1996b) found that kindergarten children, who had been peer-nominated as being victims of bullying, were significantly more likely than non-victimised children to go on to report that they did not like school. Similar results were found in an Australian study of primary and secondary school students (Rigby & Slee, 1993).

Victimised students are also more likely to be reluctant to, or even refuse to, attend school (Reid, 1983, cited in Kumpulainen et al., 1998). A survey carried out by Kidscape in the UK found that eight percent of participants indicated that being victimised at school had impacted them to the point that they had refused to attend school (Elliott, 1992, as cited in Borg, 1998). Another study conducted by Slee (1994) found that “10 percent of victims reported actually staying away from school to avoid

bullying, while 29 percent had thought of doing so" (p. 98). Of even more concern than the reluctance to go to school is when the victims are repeatedly absent, or worse, drop out of school. Several researchers have found an association between being a target of bullying and the school-related problems of absenteeism and dropping out (e.g., Boulton & Underwood, 1992; Graham & Juvonen, 1998; Hawker & Boulton, 2000; Kochenderfer & Ladd, 1996a, 1996b, Reid, 1989; Slee, 1994). Absenteeism has also been shown to increase when the perceived severity of the victimisation increases. Rigby (1997), in his study of over 30,000 Australian school students, found that 19 percent of males and 25 percent of females who had experienced frequent bullying (at least once a week) had stayed home to avoid that bully or the bullying. Such a consequence would presumably then have a carry on effect into the victim's academic achievement, social connectedness and so on.

With regard to the behaviour problems of victimised students, Hodges et al. (1999) found that being bullied was associated with the development of externalising behaviours such as lying and fighting. Other researchers have found that of all students, victims (along with the perpetrators of bullying) were the most likely to misbehave in school, with a positive correlation being found between victimisation and misconduct (Haynie, et al., 2001; Mynard & Joseph, 1997).

Psychological Distress

This category is seen as addressing issues that are more serious or clinically significant than those in the first two categories (low psychological wellbeing and social adjustment). It covers issues including psychiatric disorders, such as depression and anxiety, emotional distress or traumatic impact, and suicidal ideation/actual suicide.

Being bullied has been recognised as a health problem for school students because of its association with a variety of adjustment issues, including diminished mental health. There have now been multiple studies into the psychological effects of peer victimisation on students (Dake, Price, & Telljohann, 2003; Forero, McLellan, Rissel, & Bauman, 1999; Kaltiala-Heino, Rimpela, Marttunen, Rimpela, & Rantanen, 1999; Seals & Young, 2003). Amongst one of the more severe outcomes of frequent victimisation is depressive symptomatology. The vast majority of studies that have investigated the association between victimisation and depression have found a connection, in that those students who are victims of peer harassment, tend to show more depressive symptoms than those not involved in bullying (Boulton & Underwood, 1992; Duncan, 1999; Graham & Juvonen, 1998; Hawker & Boulton,

2000; Kochenderfer-Ladd, 1996a, 1996b; Reid, 1989; Rigby, 1999; Salmon, James, & Smith, 1998; Slee, 1994; Tritt & Duncan, 1997). Dill et al. (2004) have reported concern with the insidious nature of bullying, which they proposed produced such debilitating effects as depressive symptoms. In fact, several studies have identified the exact likelihood of students who are bullied suffering from depressive symptoms. It has been found that, when compared with those students not involved in bullying, victims were four times more likely to report depressive symptoms (Bond et al., 2001; Kaltiala-Heino, Rimpela, Marttunen, Rimpela, & Rantanen, 1999; Kaltiala-Heino, Rimpela, Rantanen, & Rimpela, 2000).

The connection between bullying and internalising problems such as depression has been seen across various nations. Several studies have been conducted in Australia in relation to the negative psychological outcomes associated with bullying involvement. In a recent study involving primary school aged students conducted by Slee (1995), participants were asked to identify their peers who were victims of bullying. Those students identified as victims were significantly more likely to manifest clinically depressive symptoms. In similar studies conducted in both England (Callaghan & Joseph, 1995; Neary & Joseph, 1994; Williams, Chambers, Logan, & Robinson, 1996), and Finland (Kumpulainen et al., 1998), primary school students reported similar associated outcomes to bullying. The connection has also been seen across various age groups. In studies of older students in Finland, students aged between 14 and 16 years showed significantly more depression when frequently victimised, when compared to those who were not victimised (Bjorkqvist, Ekman, & Lagerspertz, 1982). Another more recent study of Finnish adolescent students, involving over 16,000 participants, confirmed the previous findings of a connection between bullying involvement and depressive symptoms (Kaltiala-Heino et al., 1999).

Another internalising problem that has been shown to be highly associated with peer victimisation is anxiety (Boulton & Underwood, 1992; Kochenderfer-Ladd, 2003; Kochenderfer-Ladd & Skinner, 2002). The issue of childhood anxiety and its relationship with being a victim of bullying has been widely researched. As mentioned previously, studies have examined the actual likelihood of bullied children showing anxiety symptoms or suffering from anxiety disorders. Kaltiala-Heino and colleagues (2000) and Salmon and colleagues (1998) found that students who reported being victims of peer violence were between 3.2 to 4.2 times more likely to report symptoms of anxiety when compared with students not involved in bullying. Similar to

depressive symptoms, anxiety and its association with bullying has been recognised all over the world. Early research by Olweus (1987) in Sweden, on 'whipping boys' (those boys who became frequent targets of their peer's aggressive acts), showed that the boys were significantly more anxious and insecure than other children. In more recent research conducted in Ireland by O'Moore and Hillery (1989) and England (Salmon et al., 1998), similar results were found, in that bullied students were characterised by high levels of anxiety.

The emotional distress experienced by victims of bullying has also been examined as a psychological consequence of victimisation. Bernstein and Watson (1997) noted that students who were chronic victims of peer harassment experienced the short-term problem of emotional distress. In addition, Borg (1998) in his nationwide study of primary and secondary school students in Malta, found that participants who were self-declared victims of bullying showed symptoms of distress, including feelings of anger, vengefulness, and self-pity. This sub-category of Psychological distress also includes the notion that victims of bullying suffer from traumatic reactions after bullying experiences.

Although the research into severe childhood traumas (such as physical and sexual abuse) is extensive, investigations into what might be considered milder forms of trauma, such as bullying, is comparatively less substantial. The question has been considered as to whether these somewhat less 'dramatic' traumas could possibly have similar psychological impact on children as the more severe traumas. Boney-McCoy and Finklehor (1995), questioned 2,000 students between the ages of 10 and 16 years about their experiences with peer violence, such as bullying. Those students who had reported a severe peer assault exhibited post-traumatic stress disorder (PTSD) symptoms to the same level of those experienced by children who had been sexually assaulted.

The most concerning consequence of peer victimisation is that of suicidal ideation, and even more worrisome, actual suicide attempts. A strong link has been established between being bullied and severe suicidal ideation (Kaltiala-Heino et al., 1999). This association remains, even after the effects of depression have been partialled out. This increased prevalence of suicidal ideation amongst victims of bullying was examined in Australia with a sample of 849 adolescent students. Findings indicated that both self- and peer-reported victims were significantly more likely to have considered taking their lives than non-victimised students (Rigby, 1998b; Rigby & Slee, 1999). A recent study in Finland reported similar results from

their adolescent sample (Kaltiala-Heino et al., 1999). Psychiatrists working with adolescent have long recognised that there is an association between being of victim of bullying and risk of suicidal attempts (Rutter, Taylor, & Hersov, 1994). In fact, Elliott (1992) reported that some eight percent of children in a study by Kidscape had attempted to commit suicide because bullying had affected their lives so much. However, the causal nature of this relationship is incredibly hard to establish. Other media reports have brought to the fore the dangerous interaction between school bullying and suicide attempts (Smith & Morita, 1999, cited in Kim, Koh, & Leventhal, 2005). While extreme, tragic incidents, such as those at Columbine High School, indicate that chronic victims of peer harassment are at greater risk of suicidal (as well as other violent) behaviours. It would appear that, at least anecdotally, suicidal ideation and suicide attempts are amongst the most serious consequences related to bullying at school.

Physical Illness

This final category includes both diagnosable physical symptoms as well as psychosomatic symptoms. A multitude of studies have investigated the association between victimisation and health-related problems. The examinations have all been correlational in nature. These studies have shown a strong and significant link between being victimised at school and reporting elevated levels of physical health problems. These problems tend to include such symptoms as sleeping difficulties (either falling asleep or waking), bed wetting, head and stomach aches, sore throats, colds, and coughs (Dake, et al., 2003; Haynie et al., 2001; King, Wold, Tudor-Smith, & Harel, 1996, cited in Forero et al., 1999; Williams et al., 1996; Wolke et al., 2001). Haynie and colleagues (2001) examined over 3,000 students from the London area, and found that there was a statistically significant difference in the levels of health problem reported between victimised and non-victimised students. Both Williams and colleagues (1996) and Wolke and colleagues (2001) investigated health-related issues in primary school students in England, and found moderate to strong associations between being bullied and suffering physical health problems. In fact, Williams and colleagues reported that students who were victims of school bullying were twice as likely to report having physical symptoms than those not involved in bullying. Rigby (1998) conducted a similar study in Australia using a sample of secondary school students and found that students who reported being victimised at least once a week scored significantly higher on the Physical Complaints Scale (PCS) than students who reported no bullying involvement.

With regard to the psychosomatic symptoms experienced by victims of bullying, several studies have found notable results. Psychosomatic symptoms are those defined as symptoms that have a physiological element, but are thought to be caused by psychological factors. Dake et al. (2003) for example, reported that a study had found that victimised students were 4.6 times more likely than non-victimised students to report having experienced psychosomatic symptoms including neck, shoulder and lower back pain, feeling tense or irritable, fatigue, and loss of appetite.

Although most of the studies reported here have been correlational in nature, one particular study has paved the way for more conclusive statements to be made about the direction of the associations found between bullying and physical health problems. Rigby (1999) conducted a longitudinal study involving 78 Australian adolescent school students. He examined the physical health changes of victimised students over a period of three years. He used the PCS to assess the level of physical health problems being experienced by the students in both 1994 and 1997. A significant correlation was found between levels of victimisation in 1994 and scores on the PCS in 1997 (for both genders). He performed analyses that controlled for the differences between the 1994 levels of health for victimised and non-victimised students, which allowed him to conclude that poor physical health was a consequence of being bullied three years before. Although this important study is not truly experimental, the nature of its design does permit some more confident speculation on the causal direction of the relationship between bullying and physical health.

Effects of Bullying – Long-Term

The short-term effects of bullying on victims described above are quite clear. It makes sense that students who are suffering repeated attacks from their peers are likely to suffer immediate reactions to the harassment. However, it has also been documented that the long-term future of victims of bullying is somewhat problematical (Kumpulainen et al., 1998). Again, like the short-term effects of bullying, the long-term effects can be categorised into the same four main areas.

With regard to low levels of psychological wellbeing, victims have been shown to continue to suffer from low levels of self-esteem well into adulthood. Olweus (1992b) identified victims in Norwegian schools at age 13 years. These students had been identified as victims of frequent bullying by both their teachers and their peers. After careful statistical analysis the author concluded that, as young adults, the

victims were still lacking in self-esteem as a direct effect of being victimised at school. Olweus (1993) found again, with a different sample, that those people who were victimised as children were shown to have poor self-esteem in adulthood. These same previously victimised people were also shown to have a significantly more negative self-concept compared with those not involved in bullying. Clarke and Kiselica (1997) found similar results to Olweus, in that a loss of self-esteem appeared to last into victims' adulthood.

Social adjustment has also been shown to suffer due to its association with victimisation. Many authors have found that victims' feelings of isolation and low social confidence continue on from childhood into adulthood (Clarke & Kiselica, 1997; Olweus, in press, cited in Oliver, Oaks, & Hoover, 1994). A study of 206 undergraduates in the US, found that those 18 to 22 year olds who reported being victimised at school were significantly more lonely than other participants (Tritt & Duncan, 1997). In terms of interpersonal relationships in adulthood, Gilmartin (1987) conducted a study involving 'love-shy' male participants and found that these men were often bullied at school. The men also described having great difficulty in successfully initiating and maintaining interpersonal relationships with women, due to their disabling level of shyness and fear of intimacy stemming from being a victim of bullying.

Psychological distress has also been shown to stay with the victimised child through to adulthood. Although victims have been shown to be comparatively better adjusted as adults than bullies, the long-lasting effects of the victimisation remain obvious. Most frequently studied are the psychological symptoms of depression and anxiety. Numerous longitudinal studies have shown the association between being bullied and suffering from depression in adulthood (Olweus, 1992, 1993; Slee, 1995). Quite simply, those students who are victimised at school are significantly more likely to suffer bouts of depression as adults than their non-bullied peers. The suffering also appears to be directly related to the severity and frequency of the bullying they underwent at school (Rigby & Slee, 1999). Based on a study conducted in Australia, it appears that this also may be particularly true for female victims (Bond et al., 2001). In the same study, it was found that "a history of victimisation is a strong predictor of the onset of self-reported symptoms of anxiety…and remains so after adjustment for other measures of social relations" (Bond et al., 2001, p. 483).

It has been rare for longitudinal studies to be conducted in relation to the association between being bullied at school and suffering from poor physical health.

As mentioned previously, Rigby (1999) is one researcher who has investigated such a longitudinal relationship. In his study of Australian adolescents, he found that students who had been subjected to relatively high levels of victimisation in the early years of high school, showed significantly worse physical health when reassessed later in high school. Another researcher who has been interested in the long-lasting physical health effects of school bullying is Slee. Slee (1995) examined the association between being bullied and health in adulthood. He found that those participants who had been frequently victimised at school had significantly poorer *perceived* physical health as adults than those not victimised.

Interventions for Victims of School Bullying

Over the last two decades, many attempts have been made to develop effective interventions to combat the problem of bullying in schools. The majority of these have focused on trying to reduce the incidence of bullying, rather than the impact that bullying has on the victims. These programs have also often been aimed at the entire school population, or have used a 'whole school policy' approach (Beale, 2001; Olweus, 1978; Smith, 1997). It has been stated that for any change in bullying to occur there must be increased understanding, together with attitudinal and behavioural changes at the individual, peer, school staff, and parent levels (Pepler, Craig, Ziegler, & Charach, 1994). This 'whole school policy' approach involves intervention at many levels; however, the development and implementation of the whole-school policy on bullying is considered the most critical part of a program (Olweus, 1992a; Smith & Sharp, 1994). It involves three successive phases. The first phase focuses on increasing awareness of bully/victim problems among students, parents, and teaching and non-teaching staff, consulting the entire school community on the content of the policy, and completing the final draft. The following phase focuses on informing the school community about the final policy. During the last phase, specific training sessions are held for all target groups, which are designed to enhance the social skills needed to respond to bully/victim incidents (Stevens et al., 2001).

An example of an effective program was Olweus' (1992a) 'Bullying Prevention Program' conducted in schools in Norway. A reduction in the incidence of bullying of up to 50 percent was reported. The method of intervention specifically included school conference days, improving playground supervision, developing codes of behaviour (that explain that bullying won't be tolerated) for the school level. Increasing parents' awareness of the problem (through parent-teacher meetings) was

a key aspect of the parent level. Having the students' themselves developing class rules about bullying and conducting regular classroom meetings were activities at the classroom/peer level. At the individual level, intervention included serious discussions with both bullies and victims, and their parents.

Unfortunately, subsequent reproductions of the program in other countries have failed to replicate such exceptional findings, and have had varied levels of success. Smith (1997) reported significant reductions in the prevalence of bullying, and increases in the number of students reporting bullying incidents to a teacher, following the introduction of the whole school policy into schools. Beale (2001) also reported success in reducing the incidence of bullying by 20 percent; however, their data appears to be based mostly on anecdotal reports. In a recent study (Smith, Schneider, Smith, & Ananiadou, 2004), the authors reviewed the evaluation research available on the whole-school approach. The authors concluded that "it is clear that the whole school approach has led to important reductions in bullying in a number of cases, but the results are simply too inconsistent to justify adoption of these procedures to the exclusion of others" (p. 557).

With regard the intervention targeted at the individual level, most studies report the use of "serious talks" with victims and their parents as the method of intervention. The study by Pepler et al. (1994) used this method as part of a larger intervention to combat bullying problems in schools in Toronto, Canada. When comparing pre-intervention to post-intervention data, they found a significant *increase* in the number of children reporting that they had been victimised, as well as in the number of children who reported bullying others.

While schools are making concerted efforts to combat the problem of bullying, victims are continuing to suffer the effects of repeated victimisation. Given the varied and often limited success of whole-school interventions, and time it takes to implement these approaches and to see any success, there is a need to give victims strategies and skills to reduce the impact that bullying has on them.

Summary of Bullying Information

A significant proportion of students from all over the world are being exposed to repeated victimisation by their peers. The prevalence figures discussed earlier, as high as they are, may not be an accurate representation of the frequency with which bullying is occurring. The secret nature of bullying makes it extremely difficult to obtain accurate prevalence figures. However, the use of anonymous self-report questionnaires has been suggested as the most useful and reliable method for

establishing the prevalence of bullying in schools. This method is time efficient, cost effective, and requires little involvement both either parents or teachers. The use of self-report questionnaires does not require a great deal of labour on the part of the researcher, while still directly targeting the subjective experiences of the students involved in bullying.

The development and maintenance of victimisation problems have been associated with a number of factors. Students' inherent characteristics (such as their personalities), their families, peers, and schools have all been shown to be related to a student's involvement in bullying at school. However, due to design limitations it is not possible to conclude causal directions of these relationships. There also appears to be ample evidence supporting the notion that experiencing bullying during school years can reduce psychological and physical wellbeing, and that these effects can continue into adulthood. However, it has also been noted by several authors that being bullied does not appear to have the same affect on all students (Kochenderfer-Ladd & Ladd, 2001). Some researchers (e.g., Hoover et al., 1992) discussed that although a vast majority of students are bullied at some point in their school career, many of them reported that they did not feel it had done them severe harm. Thus one area for future research involves the characteristics of those students that make them more resilient to being bullied.

CHAPTER 2

Resilience

Definition

Resilience research has been long troubled by issues surrounding the definition of this construct. The use of the term *resilience* varies considerably not only from study to study, but across participant groups, according to the theoretical context under which it is being investigated, and across time (Heller, Larrieu, D'Imperio, & Boris, 1999; Luthar & Cicchetti, 2000; Masten, Best, & Garmezy, 1990). It appears that each researcher has their own operational definition of resilience. For example, it has been defined in various studies as the following: success in education; positive behavioural outcomes; improved cognitive functioning; or simply the non-existence of psychopathology (Harvey & Delfabbro, 2004). However, as research into resilience has evolved, the definition has appeared to change from seeing resilience as the absence of psychopathology, to one involving both a lack of psychological problems *and* the presence of social, emotional, and psychological wellbeing (Kinard, 1998).

Rutter (1985) contends that resilience is a dynamic process. He believes that resilience develops from exposure to adverse circumstances, rather than through the avoidance of such situations. For a person to be considered resilient, they must be able to successfully protect themselves from the usually negative consequences of adverse events. Avoiding negative events is not considered an active process, and thus does not constitute resilience. It is in this way that resilience can be differentiated from coping. Avoidance is considered a form of coping (Lazarus & Folkman, 1987), whereas, according to Rutter (1985), avoidance cannot be considered a part of being resilient. It is important to note at this point that there is a strong difference between those variables that *define* resilience, that is, stress and the adaptation to that stress, and those variables that *mediate* this relationship.

There are many other ways in which researchers have defined resilience. Wolff (1995), however, cautioned against definitions that highlight only the importance of behavioural success in being resilient. He uses an example of a person who was sexually abused as a child, who subsequently goes on to achieve educational and career success. The issue is whether or not this person can be considered resilient if they cannot successfully develop and maintain peer and intimate relationships, due to the childhood abuse. The implication of this example is

that unless a person can show behavioural success across several, if not all, areas of their lives then such success may not be adequate in defining their resilience.

Wang, Haertel, and Walberg (1994) define resilience as the “capacity of individuals to overcome personal vulnerabilities and environmental adversities effectively or the ability to thrive physically and psychologically despite adverse circumstances” (p. 6). Whereas Stewart, Reid, and Mangham (1997, cited in Rew, Taylor-Seehafer, Thomas, & Yockey, 2001) define resilience as the “capacity of individuals to cope successfully with significant change, adversity or risk; that capacity changes over time and is enhanced by protective factors within the person and the environment” (p. 34). Finally, Wagnild and Young (1993, cited in Rew et al., 2001) define resilience as “social and psychological competence characterised by equanimity, perseverance, meaningfulness, existential aloneness, and self-reliance” (p. 34).

It is important to note that most definitions of resilience incorporate the notion of rebounding to a ‘normal’ level of functioning following trauma or adverse circumstances. However, each of these definitions are developed within a culturally-specific idea of what constitutes ‘normal’ functioning. Werner (1995) describes resilience as a “self-righting mechanism”, indicating that a reference point exists against which people should be compared. Definitions also incorporate culturally-specific ideas of what can be deemed life successors. So in one culture, having a successful life may be highlighted by being happily married with children, while another culture will emphasise the gaining of educational success and career status. Many definitions contend that to be resilient one must ‘appropriately’ cope with the negative situations with which one is faced. Again, this will vary from culture to culture, depending on what is considered ‘appropriate’ coping.

Due to the numerous variations in the definition of resilience, and the issues surrounding the operationalisation of the construct, a specific operational definition was developed for the purposes of the present study. In its simplest form, the definition involves an individual showing: a) a lack of behaviour problems (both internalising and externalising); b) a lack of health problems; c) a lack of perceived impact of the negative event; and c) above average life satisfaction and perceived wellness. This definition will be explained in detail in Chapter 3 – Bullying and Resilience.

Early Research on Resilience

What early research into resilience has shown is that people, in particular children, when faced with traumatic or distressing events, will display a variety of reactions; some will show a decrease in their level of functioning, while others will maintain functioning and even thrive in the face of adversity (Perry, 2002b). This information challenged the existing notion that all traumatic experiences, particularly those occurring in childhood, would inevitably lead to damage to the individual (Walsh, 2003).

This basic notion, that not all people suffer the same effects of adversity or trauma, has been the primary building block for research into resilience. The aim of early resilience research was to establish how it was possible that many young people who faced a number of risk factors as children went on to attain 'normal' psychological functioning and general success in life (Anthony, 1974; Blum, McNeely, & Nonnemaker, 2001; Fergusson & Lynskey, 1996; Rutter, 1981; Werner, 1984). Much of this early research was conducted in low SES urban regions in the USA. An example of this early research was a 10-year, longitudinal study conducted by Garmezy, Masten, and Tellegen (1984). The researchers followed a large sample of children growing up in disadvantaged regions, as well as children who had physical disabilities. When compared with children not facing a similar number of risk factors, it was found that a significant proportion of the participants had equivalent levels of academic and social success (as measured by such variables as classroom behaviour and interpersonal competence levels).

Another early large-scale study found similar results to those of Garmezy and colleagues. Werner and her colleagues followed a cohort of 698 participants born in 1955 in Kauai, Hawaii. A significant number of the participants were deemed to be at significant risk of serious learning, behavioural, and psychological health problems during infancy and childhood, and yet as many as one third of those children were considered to be 'successful' adolescents, and this success was seen to continue into their adult lives (Werner, 1993, 1994; Werner & Smith, 1992). Yet another longitudinal study, conducted by Rutter (1981), followed 125 children in the UK. The participants all had at least one parent who had been diagnosed with a psychological illness. Rutter found that a large proportion of the children had gone on to lead 'normal' lives as adults, apparently unaffected by their parent's illness.

The question that remained, even after such extensive studies, was *how* this success was being achieved. What still needed to be investigated was what factors

lead to these people's success, and whether these were inherent in the individual, or perhaps a product of environmental experiences. Early researchers (e.g., Anthony & Cohler, 1987) thought of resilience as an innate characteristic within the individual. Certain children were seen as invulnerable or impervious to stressful circumstances. However, as research was expanded to incorporate a variety of adverse circumstances (including being raised in a low SES area, coping with chronic illnesses, traumatic life events, and loss), resilience was seen to be a possible interaction between heredity and environmental factors. This interplay was believed to occur between the aspects of the individual, aspects of the individual's family, and characteristics associated with the social environment (Denny, Clark, Fleming, & Wall, 2004; Garmezy, 1991; Masten et al., 1990; Petterson, 2002; Rutter, 1987; Smith & Prior, 1995). Each of these elements will now be considered in turn.

Development of Resilience: Attributes of the Individual

Many research studies have reported personal attributes that appear to be consistently present in resilient individuals, regardless of how they are identified or how the construct is operationalised. These include such attributes as high self-esteem (or self-concept), well-developed social skills, high levels of optimistic thinking, effective coping strategies, and above average emotional intelligence.

Self-Esteem

Self-esteem has been defined as the amount of value that one places upon oneself. It is literally how much someone likes, accepts, and respects the person that they are (Harter, 1990). Having high self-esteem means a person possesses a positive evaluation of their general self, whereas a low self-esteem indicates a negative or unfavourable view of oneself. This view, however, is in no way required to be accurate. Self-esteem should, therefore, be considered as a perception of the self, rather than an accurate, objective representation or understanding of the self (Baumeister, Campbell, Krueger, & Vohs, 2003).

A favoured theory is that high self-esteem operates as a resource that enables people to both suffer less, and to recover more rapidly from, harmful, threatening, traumatic, or otherwise unpleasant events (Arndt & Goldenberg, 2002). Some studies have purported that high self-esteem has buffering properties by mitigating the effects of stress on the individual. Cicchetti, Rogosch, Lynch, and Holt (1993) examined various areas of functioning amongst a heterogenous group of low SES, maltreated children and compared them with non-maltreated children. They found that, among the maltreated children, positive self-esteem (along with other variables)

was able to predict the development of resilience in these children. Garmezy (1993) found similar results when investigating young people living in disadvantaged circumstances. He found that having a high level of self-esteem was a characteristic that appeared to promote the development of resilience. In a more recent study, it was again found that resilient children tended to exhibit high levels of self-esteem, which was related to improved academic, social, and health outcomes (Wasonga, Christman, & Kilmer, 2003).

With regard to the more specific variables that appear to constitute resilience, Lee (2000) conducted an investigation of the development of resilience, motivated purely by an interest in the characteristics of resilience at the individual level. That is, the characteristics inherent in the resilient individual. Lee (2000) found that individuals who had higher levels of self-esteem were then more likely to use effective coping strategies (active or problem-solving strategies) to deal successfully with stressful or traumatic events in their lives than those with low self esteem. Diener and Diener (1995), on the other hand, assessed the relationship between self-esteem and life satisfaction. The investigation involved over 13,000 participants across 31 nations, who each completed measures of self-esteem, life satisfaction, and satisfaction within specific domains (e.g., friends, family, and finances). Looking at the entire sample at the individual level, self-esteem and life satisfaction were found to be significantly correlated (r = .47).

A study that examined the association between self-esteem and physical and mental health was conducted by Glendinning (1998) in northern Scotland. The study consisted of a sample of 1,700 youths, aged between 14 and 16 years, from eight different rural locations in the northern regions of Scotland. The author contends that “self-esteem is clearly related to evaluations of physical and psychological wellbeing at this age. Thus, lowered self-esteem is associated with poorer self-rated health, and with depressed mood” (p.64). Another study that has evaluated the effects of self-esteem on depressive symptoms in adolescents was conducted by Robinson, Garber, and Hilsman (1995). Participants were 371 sixth grade students who were assessed on a number of variables including self-esteem and depressive symptoms using Harter’s Perceived Self-Competence Scale and the Children’s Depression Inventory. After the transition to seventh grade, which was considered to be a stressful period, participants were again assessed. The authors found that students with low self-esteem suffered from the greatest increase in depressive symptoms, even after controlling for the initial levels of depressive symptoms.

Social Skills

The construct of social skill has been labelled and defined in a number of different ways. The terms interpersonal skills, interpersonal competence, social competence, and communication competence have all been used interchangeably with the term social skills. A simplified definition notes that having social skills allows an individual to interact with people in a way that is deemed both appropriate and effective (Segrin, 1992, cited in Segrin, 2000). In this case, the term appropriate infers that the person, in their communication, has not violated any social norms, values or expectations, and is therefore not viewed negatively by others. Effective, on the other hand, refers to how well the person's intended goals were achieved in the interaction (Segrin, 2000).

Well-developed social skills have also been found to be associated with the development of resilience. Garmezy (1993) identified a large number of characteristics within the individual that were found to improve outcomes for children living in impoverished conditions. Among these characteristics was a wide range of social skills. Further studies on resilient children have shown that one of the key characteristics of children who survive adversity are their strong social skills (Werner, 1989). In child development, the acquisition of social skills is considered critical to the healthy psychological adjustment of children and adolescents. Studies that examined the social skills of students have found that students with adequate social skills have a lesser tendency to develop behavioural problems and are less likely to drop out of school or develop emotional disturbances than those with poor social skills (Parker & Asher, 1990, cited in Heiman & Margalit, 1998). Further, social skills have also been identified as being critical in the development and maintenance of positive interpersonal relationships throughout one's life. Riggio, Watring, and Throckmorton (1993) conducted a study that examined the interrelationships between social skills and a variety of measures of psychosocial adjustment in university students. Their correlational analyses demonstrated that having well-developed social skills was significantly and positively related with measures of psychosocial adjustment, including lower perceived loneliness and satisfaction with life in general.

Studies examining the relationship of social skills to resilience have also focused on decreases in wellbeing. Such studies include the aforementioned theoretical review by Segrin (2000). In his review, Segrin mentions research that has suggested that deficits in social skills may act as a risk factor in the development of depression (Segrin, 1996, cited in Segrin, 2000). Spence, Donovan, and Brechman-

Toussaint (1999) compared a sample of 27 clinically diagnosed socially phobic children (aged seven to 14 years) with a matched sample of non-clinical children. Social skills were assessed through self- and parent-report, an assertiveness questionnaire, and through direct behavioural observation by the researchers. Children who suffered from a social phobia showed significant social skills deficits compared with the non-clinical control group. Interestingly, the socially phobic children rated themselves as being significantly less socially competent with their peers, indicating some recognition of their deficits (Spence et al., 1999).

Optimism

Dispositional optimism is most commonly defined as an outlook, or explanatory style that leads an individual to generally expect good things to happen to them, even when faced with major challenges (Scheier & Carver, 1985). Optimists tend to explain negative events as being due to factors that are external to themselves, unstable (temporary), and specific, whereas pessimists explain negative events as being due to internal, stable (permanent), and global factors (Peterson & Bossio, 1991). Steinberg and Gano-Overway (2003) explain that having an optimistic explanatory style permits people to perceive failures or shortcomings as challenges that must be conquered, rather than simply seeing the event/themselves as a 'failure.'

In the study by Garmezy (1993), it was found that optimism, or optimistic thinking, was associated with the development of resilience. Walsh (2003) comments on the extensive amount of research that has confirmed the positive effects that optimism has on stress, recovery after trauma, and overcoming obstacles to life success. In fact, there is a considerable amount of data that supports the role of optimism as a buffer for life's daily and ongoing stressors. For example, prior research suggests that optimism is strongly related to positive psychological health (Snyder, Irving, & Anderson, 1991, cited in Kashdan et al., 2002), adaptive coping responses to ongoing stressors (Barnum, Snyder, Rapoff, Mani, & Thompson, 1998, cited in Kashdan et al., 2002), and recovery from depressive symptoms (Klausner et al., 1998, cited in Kashdan et al., 2002).

Lee (2000) conducted a study that examined the association between particular variables and resilience among Korean mother-daughter dyads. The investigation was primarily concerned with resilience at the individual, inherent level, and the possible heredity of certain variables, as opposed to environmental and social factors in the development of resilience. Lee found that women who

possessed higher optimism were more likely to report using active or problem-solving strategies to cope with stressful life events, which in turn, buffered them from the negative effects of such stressful events.

In a study by Peterson and De Avila (1995), eighty six volunteer student participants (mean age of 22.1 years) completed a series of questionnaires related to optimistic explanatory style and perceptions of health problems. Those participants who possessed an optimistic explanatory style (that is, they tend to perceive negative events as having external, unstable, and specific causes), saw themselves as being at significantly less risk for a variety of health problems compared to those without this explanatory style. These participants also perceived themselves to be more able to prevent health problems. It appears that people's optimistic beliefs about control over health issues may lead them to act in more healthy ways.

In a recent study by Ben-Zur and Debi (2005), 90 adults who had lost their vision were assessed on dispositional optimism and wellbeing. The participants had become legally blind during adulthood, but reported no other major health problems. The authors hypothesised that optimism would be related to higher levels of positive affect, higher levels of functional ability, and lower levels of negative affect. The findings suggested that optimism did in fact play an important role in motivating people to cope adaptively with their vision loss. At this point it is important to note that although numerous studies have been conducted on adult populations, comparatively little has been done using child and adolescent samples.

Perry (2002), however, wrote "the child who is capable of thinking that things will be better – that the bad feelings and situation he now faces will improve – will be more resilient" (p. 25). Finally, it is important to note that based on Seligman's theory of 'learned helplessness', optimism can taught and learned. Seligman's early research showed that with repeated failures, people learn to be helpless and pessimistic, believing that bad things will always happen to them (Seligman, 1990). Seligman believed that this helplessness could be unlearned, and he reasoned that optimism could, therefore, be learned.

Coping

One prominent stress and coping paradigm (Causey & Dubow, 1992; Lazarus, 1984; S. Roth & Cohen, 1986) proposes that coping strategies can be divided into two categories: approach and avoidance strategies. Approach strategies are direct attempts to change the situation; for example, problem-solving and seeking social support (Fields & Prinz, 1997). Avoidance strategies are any behaviours that are not

direct attempts to change a stressful situation, but are ways in which individuals manage their reactions to stress, either cognitively or emotionally.

It has been argued that developing coping skills is one way to facilitate resilience in young people, and this is often the goal of prevention and intervention programs (Cunningham, 2002). This particular approach is based on the idea that people who do not possess adequate coping strategies to deal with stressful situations are more likely to suffer from difficulties in their psychosocial functioning (Compas, 1995). More specifically, the development of effective coping skills is an important component in protecting young people from depression and providing them with skills to manage their lives (Frydenberg, 2004). The need for a more complete understanding of how adolescents cope with stressors has been highlighted due to the belief that developing effective coping strategies during adolescence may be a pathway to positive adaptation in later life (Compas, 1987).

Self-reported health has also been examined in relation to coping strategies. A study by Aysan, Thompson, and Hamarat (2001) looked at the coping skills and perceived health status of secondary school students during their stressful exam period. The authors suggest that effective coping strategies may act as buffers to the possibly damaging effect of stress and stressors in life. The study found that students who were prone to using ineffective coping strategies (e.g., self-blame, wishful thinking, and avoidance), were more likely to have poor perceptions of their health status, whereas students who had more effective strategies (such as seeking social support and using problem solving strategies) in their coping repertoire tended to report better health perceptions. Although actual health was not examined, the importance of an individual's perception of their health status should not be overlooked.

Coping strategies have also been examined in the context of mental health. In a study by Griffin and Dubow (1993), 375 students in junior high and high school in a semi-rural community in the USA were assessed. A portion of the investigation focused on the relationship between coping strategies and mental health outcomes. The results showed that approach strategies, compared with avoidance strategies, resulted in more positive outcomes, in that lower levels of anxiety were reported. Avoidance strategies, however, resulted in higher levels of anxiety being reported. The authors concluded that "this indicates that coping strategies may serve either as a risk factor or a protective factor in terms of being related to an index of psychological distress" (Griffith & Dubow, 1993).

Coping and resilience have also been examined in the context of peer victimisation as the stressful or traumatic event. Kochenderfer-Ladd and Skinner (2002) argued that if students' coping resources are inadequate or ineffective, even infrequent peer victimisation experiences may result in negative outcomes and maladjustment. For example, the long-term consequences for victims of bullying who adopt ineffective or passive coping strategies include being at higher risk for low self-esteem and depression (Neary & Joseph, 1994; Slee, 1995). Perhaps the initial step to effective coping is the ability to recognise how a particular situation is making the individual feel. If this is the case, then emotional intelligence would most definitely show links to victimised student's social, emotional, and psychological outcomes.

Emotional Intelligence

Emotional intelligence has been described as a social intelligence that allows people to recognise their own and others' emotions. Further, it enables people to discriminate between those emotions, and to make appropriate choices for thinking and actions (Cooper & Sawaf, 1997; Mayer & Salovey, 1993). Emotional intelligence in children is an area that has been receiving increased attention over the last decade. Research has shown that emotional intelligence could be an important factor in increasing social adaptation (Sullivan, 1999) and psychological wellbeing (Goleman, 1995). Furthermore, emotional intelligence has been proposed as an important factor that could decrease behavioural problems in school-aged children by enabling students to manage their negative emotions more affectively, and therefore help them to behave in more socially acceptable ways (Obiakor, 2001).

Further research on the influence of emotional intelligence on resilience factors has included a study by Palmer, Donaldson, and Stough (2002). The authors examined the relationship between emotional intelligence and life satisfaction by assessing 107 participants on a variety of measures of both variables. The participants ranged in age from 16 to 64 years and were recruited from the general community. Their results added weight to the notion that emotional intelligence can account for individual differences in life satisfactions ratings. More specifically, the Clarity of Feelings subscale from the Trait Meta-Mood Scale (TMMS; Salovey, Mayer, Goldman, Turvey, & Palfai, 1995; cited in Palmer et al., 2002) was found to add a statistically significant increase of around 5.5 percent to the prediction of life satisfaction once both positive and negative affect had been accounted for.

Slaski and Cartwright (2002) examined the role of emotional intelligence in predicting retail managers' levels of subjective stress, health, and wellbeing. High

emotional intelligence was related to significantly lower scores on the General Health Questionnaire – 28 (indicating better perceived general health), lower levels of psychological distress, and lower perceived levels of subjective stress. These findings indicate a significant relationship between emotional intelligence and both physical and psychological health. The authors believed that emotional intelligence could be playing a moderating role in the stress process, which could lead to increases in resilience.

A study by Hunt and Evans (2004) investigated whether emotional intelligence could predict how people responded to traumatic experiences in their lives. The study was conducted using a sample of 414 individuals (181 males, 233 females, mean age of 36 years), 298 of which reported that they had experienced a traumatic event in their past. The participants were assessed on their level of emotional intelligence with a scale developed by the authors for the purpose of the study. They were also administered the Impact of Event Scale – Revised (measuring PTSD symptoms) and the Monitoring-Blunting Questionnaire (measuring reactivity of either monitoring or blunting emotions). It was found that participants with higher emotional intelligence reported fewer trauma-related symptoms. In fact, emotional intelligence was the best predictor of scores on the Impact of Event Scale – Revised. The authors suggested that it was not surprising that a relationship was found between emotional intelligence and trauma scores. They relate their finding back to the basic definition of emotional intelligence, which purports that emotionally intelligent individuals are better equipped to deal effectively with various situations in their lives, without becoming distressed.

While emotional intelligence research has been gaining momentum over the last two decades, relatively little has been conducted with child and adolescent samples. It is well documented that emotional intelligence promotes wellbeing in numerous facets of adults' lives, and this knowledge should help direct the research towards younger cohorts. With better knowledge of how emotional intelligence develops in individuals and what benefits it can provide younger people, the development of more effective interventions to teach such emotional skills should be a logical consequence. However, there have been numerous methodological problems associated with emotional intelligence research. In an effort to address some of these methodological issues, the current research utilised an ability-based measure of emotional intelligence (as will be discussed in more detail in Chapter 5).

Perceived Social Support

First, it is important to note that this section is dedicated to the examination of the effect of *perceived* social support on resilient outcomes, and not the effect of *actual* social support. The difference being that perceived social support is that which is *believed* to be available, compared with that which is *actually* available or received (Wills & Shinar, 2000). The perception that one has adequate social support, for this study, is seen as an attribute within the individual. However, actual social support is seen, again for this study, as something that an individual's social environment provides, and therefore, will be discussed in a later section.

There is continued debate over which form of social support (actual or perceived) has the greater influence over outcomes for individuals. Roth (2004) reports that Cohen and Wills (1985) found perceived social support was more significant than actual social support in relation to health behaviours. They theorised that if an individual did not perceive that they had social support available to them, then they would not seek out such support, leaving the perception of support playing a more vital role. This notion has been supported by numerous studies that found perceived social support to be more important than actual social support in terms of health and wellbeing (Feldman, Dunkel-Schetter, Sandman, & Wadhwa, 2000; Giblin, Polan, & Ager, 1990; Rudnicki, Graham, Habboushe, & Ross, 2001; Schaffer & Lia-Hoagberg, 1997).

During their studies on the effect of perceived social support on health and wellbeing, Cohen and Wills (1985), found that two theories or models of social support emerged. The first was the 'main effect model,' which proposed that social support would have a positive effect, regardless of whether the individual was currently experiencing stressful events. The second was the 'stress buffering model.' This model theorised that social support serves as a buffer to the effects of stressful events, allowing people to cope more effectively, and thus maintain or even improve wellbeing (Cohen & Wills, 1985).

There is considerable research that has shown the positive link between one's perception of available social support and levels of adjustment and physical and psychological health outcomes (House, Landis, & Umberson, 1988; Sarason, Pierce, & Sarason, 1990). For example, a study by Rigby (2000) aimed to investigate the claim that "the mental health of school children can be undermined by repeated bullying at school and further exacerbated by having inadequate social support" (p. 57). A sample of 845 adolescents, with a mean age between 13 and 14 years, were

administered questionnaires to assess their level of general health, the extent to which they reported being bullied, the level of social support available to them, and the confidence they felt at being able to receive support when needed. Although the study was specifically investigating the interactional effects of these variables, the authors also examined them independently. The results indicated that the psychological wellbeing of the participants was significantly related to the extent to which the students felt that they could rely upon support from others, particularly in times when serious problems arose at school.

In a study by Asarnow and colleagues (1987), variables commonly associated with depression and suicidal behaviour in adolescents were evaluated. Their participants were 30 child psychiatric patients, ranging in age from eight to 13 years. Among the variables explored were the participants' family environments, as measured by the Family Environment Scale (FES) (Moos & Moos, 1981, cited in Asarnow, Carlson, & Guthrie, 1987). In analyses of the participants' perceived family environments, results showed that suicidal children saw their families as "less cohesive, higher in conflict, and less controlled" than participants who were not suicidal (p. 364). The suicidal children perceived their family environments to be unsupportive in stressful times. Interestingly, of all the variables assessed, perception of the family environment was the strongest predictor of suicidal behaviour in the sample.

Summary

Many personal attributes have been associated repeatedly with resilient individuals, including high self-esteem, well-developed social skills, high levels of optimistic thinking, effective coping strategies, and above average emotional intelligence. These characteristics have been consistently identified in the resilience literature, regardless of how resilience was operationalised in the different studies.

Self-esteem was shown to operate as a resource that both enables individuals to suffer less, and to recover more quickly, from the effects of trauma. Self-esteem was also found to mitigate the effects of stress on the individual and to have buffering properties. Further research found that individuals with higher self-esteem were more likely to use effective coping strategies, to report higher life satisfaction, and to perceive their physical and psychological health to be better than individuals with low self-esteem.

Social skills were also found to be associated with resilience in children and adolescents. Numerous studies found that well-developed social skills not only

helped individuals to survive adversity, but were associated with lower perceived loneliness, a lower tendency to develop behaviour problems, and higher satisfaction with life in general. Individuals with deficits in social skills were also at greater risk of developing psychological disorders, such as depression.

Optimism has been repeatedly confirmed to have positive effects on stress, recovery from trauma, and overcoming challenges on a daily basis, and in life in general. Optimism has been linked with both positive outcomes such as psychological health and adaptive coping, and with the avoidance of negative outcomes such as depression. Similar to the findings on elf-esteem, optimism was found to have buffering properties to the negative effects of stressful events.

Coping is a variable that has been found to be a mediating variable in the stress and adaptation relationship. Much research has asserted that the use of effective coping skills helps protect individuals from depression, and equips them with the skills necessary to manage in life. Once again, the variable has been suggested to have buffering effects to the damage caused by stress. Research has also made connections between coping and victimisation directly. It has been argued that if students' coping is inadequate, then even mild victimisation could result in negative outcomes and maladjustment.

Emotional intelligence has been found to be an important factor in the development of social adaptation, and in decreasing behavioural problems, by enabling individuals to manage their own emotional, while understanding the emotions of others. High emotional intelligence has been linked to high life satisfaction, better perceptions of general health and wellbeing, and lower levels of psychological distress, and subjective stress.

Finally, research has supported the notion that *perceived* social support is vitally important with regard to health and wellbeing outcomes. There has been a considerable amount of research linking perceived social support to levels of adjustment and physical and psychological health. Believing that adequate social support is available can have a significant impact on the health and wellbeing of individuals exposed to stress.

Past research has generally focused on one or two specific characteristics of individuals, and how these relate to the development of resilience. Research has yet to look at all these related variables as a whole, and how they help to build resilience in children and adolescents.

Development of Resilience: The Influence of Family

A common finding among the considerable body of research into the development of resilience is that families exert an influence on the behavioural patterns of children (Rutter, 2001). Various research studies have uncovered consistencies in the families of resilient children. Two such consistencies observed in the research are the type of parenting style implemented by parents, and the relationship between the parents and the child. However, it should be noted that it is still not fully understood exactly *how* family factors exert their influence on children's wellbeing.

Parenting Style

Research studying the risk and resilience factors in child adaptation has often incorporated parenting practices into their models. Direct associations have been consistently found between parenting practices and the outcomes of children (Easterbrooks & Graham, 1999; Frick, Christian, & Wootton, 1999; L. Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). Several decades of research into the effect of parenting styles on child outcomes has been founded on the Baumrind (1991) classification system. The system has four parts, each of which can be linked to various child outcomes, including psychological functioning, school achievement, and delinquency (Brenner & Fox, 1999). The four categories of parenting style include: authoritarian, permissive (sometimes labelled indulgent), authoritative, and neglectful. Authoritarian parents are punitive and focus heavily on gaining obedience to their demands from their children, rather than listening to the wants of the child. Permissive parents do not set limits and boundaries for their children; however, they are more responsive to their children's demands than authoritarian parents. Authoritative parents tend to enforce reasonable boundaries and rules for their children, are flexible, and responsive to their children's needs. Neglectful parents have little involvement with their children, respond minimally to their child's needs, and to the behaviour of their children (Brenner & Fox, 1999). These parenting practices have been researched in relationship with resilience and child outcomes, and direct links have been found.

Prevatt (2003) investigated the specific role that parenting practices play in the development of children's emotional functioning and school achievement. The aim of the study was to better understand the unique contribution that parenting practices make to a risk and resiliency model of child development. It was hoped that this would lead to the creation of more informed prevention strategies. The results

showed that positive parenting (consisting of family cohesion, family support, and family moral-religious orientation in this particular study) was the main factor in explaining the variance in children's adaptive behaviour (Prevatt, 2003).

Another example of such research was reported by Amato and Fowler (2002). The authors examined the link between parenting practices and child outcomes specifically, levels of problematic adjustment, school achievement (i.e., grades), and behavioural problems. Overall, they found that across a diverse range of family settings, two main factors were associated with positive outcomes for children. These factors were: a high level of support provided by parents and the avoidance of the use of punitive and harsh punishments (Amato & Fowler, 2002). They found that a decrease in support from parents was associated with increases in problems of adjustment and behaviour, while an increase in support was linked to greater school achievement. Similarly, increases in the use of harsh (punitive) punishments were associated with increases in adjustment problems and behavioural issues. However, lower levels in the use of such punishments saw an increase in school achievement. An appropriate amount of supervision and monitoring from parents, along with non-use of punitive punishments led to other positive outcomes including greater social competence, better psychological health, and higher levels of self-esteem.

Another study that focused solely on the level of supervision and monitoring by parents was conducted by Ungar (2004). The study found that children's wellbeing is maintained when parents or caregivers allow their children opportunities in which to feel in control of their lives (authoritative-type parenting). In such families, research shows that children will adopt more mature roles in the family and will develop greater independence while practicing these resiliency building skills (Ungar, 2004). This is in contrast to those families in which children are allowed little input into the decisions around what happens to them (authoritarian-type parenting). These outcomes have been seen for children of all ages, including adolescents (Gunnoe, Hetherington, & Reiss, 1999).

Relationship with Parents

Even from birth, families and particularly parents, are exerting effects on infants; shaping them into children and young adults who deal with stress positively, or alternatively, are less able to deal with (di)stress (Perry, 2002b; Ungar, 2004).

Much research supports the notion that infants are born with a particular type of temperament that dictates their emotional reactivity, levels of fear, and levels of activity. An infant's temperament is generally described as being either difficult, slow

to warm up, or easy (Rothbart, 1986). However, regardless of the infant's original temperament, Perry (2002) believes that it is the relationship, or "fit", between child and caregiver that will ultimately influence the child's capacity to cope with stress. For example, Perry (2002) proposes that even an infant with a difficult temperament can be made to feel safe and will quiet or calm down if matched with a caregiver who is themself calm. Conversely, a child with an easy temperament can be shaped into a more reactive and "difficult" child if matched with an anxious or inexperienced caregiver. It is this "fit", or in some cases "misfit", that plays such an important role in the development of a child's resilience.

Children tend to use their parents and other adult caregivers in their lives as sounding boards to practice the behaviours associated with their personal identity, as that identity gradually forms. These behaviours are later generalised to the child's community and predominantly to their school environment (Webster-Stratton, Reid, & Hammond, 2001). Research has also shown that the interaction between parent and child can be quite beneficial when it is less hierarchical and more horizontal. That is, if parents can relate to their children less as authority figures and more as peers, "positive and developmentally appropriate growth" (p. 25) can occur. This type of interaction allows children and adolescents to actively engage with their parents, who are, in turn, demonstrating how to appropriately relate to others. This is done without jeopardising the parent's ability to effectively monitor their children (Russell, Pettit, & Mize, 1998).

Adolescents, particularly ones who have been defined as "high risk teens", have been shown to benefit greatly from interactions with parents or caregivers. Ungar (2004) found that these interactions played an important role in helping adolescents define themselves as psychologically healthy. These interactions also allowed adolescents to continue to perceive themselves as resilient individuals who could meet and overcome the challenges and adversities in their lives. Such high risk teens were examined more closely in a study by Farrell and White (1998). The authors examined peer influences and drug use among urban adolescents. They discovered that an adolescents' relationship with their father was particularly pertinent when it came to drug use. They described the relationship between father and adolescent as a significant "resilient factor" (p. 255) that influences whether or not an adolescent would abuse drugs. By providing an influential role model, the father acts as a buffer to the potentially negative influences of peers (Farrell & White, 1998).

It is not simply a matter of parents or caregivers interacting with their children, but it is the *quality* of these relationships and interactions that has the greatest impact. Relationships that are deemed to be high-quality by children and adolescents are associated with positive psychological and behavioural outcomes, even when these children are raised in adverse circumstances (McCubbin et al., 1998; Mitchell & Finkelhor, 2001; Walsh, 1998). Ungar (2004) reported that when adolescents believed that they had successfully engaged with their parents or caregivers, they were more likely to report having greater self-esteem and believed that they were more likely to succeed at life's challenges. In general, the research on how parents and their children interact has shown that these relationships and interactions are not only beneficial, but appear necessary for maintaining the child's wellbeing both at home and in their wider communities.

Development of Resilience: The Role of the Social Environment

Similar to the research into individual attributes and aspects of the families of resilient individuals, a considerable body of research has noted consistencies in the social environments of resilient individuals. Both a sense of connectedness and the actual presence of social support have been found in the social environments of people who cope well with adverse circumstances. They have both been identified as protective factors against risk conditions (Rew & Horner, 2003). As these variables are often viewed in the literature as constituting the same thing, they will be reported on concurrently here.

Sense of Connectedness and Social Support

In the lives of adolescents, a sense of connectedness and practical social support will most likely come from one (or all) of three sources: family, friends or peers, and the school. Connectedness has been generally described as one's perception that both emotional and functional support can be practically and reliably provided by others (Frauenglass, Routh, Pantin, & Mason, 1997). More specifically, family connectedness has been described as a child's sense of closeness to parents and siblings. Family connectedness includes feelings of being loved and appreciated by parents and the appreciation that their parents are genuinely interested in their life. Connectedness is the degree to which a child feels affection and mutual support within the family unit (Wolman, Resnick, Harris, & Blum, 1994). Social (or peer) connectedness has been conceptualised as an individual's belief that their friends care about them (Rew, et al., 2001). School connectedness is most widely defined as a student's feelings of closeness to the school personnel and environment and the

perceived experiences of caring from these sources (Bonny, Britto, Klostermann, Hornung, & Slap, 2000). Social support, like connectedness, is defined as “receiving various forms of informal assistance (e.g., information, tangible help, emotional support, and social integration) from relatives, friends, neighbours, and other community members” (Allen, Blieszner, & Roberto, 2000, p. 918).

Both connectedness and social support have been shown to act as protective factors, or buffers, against the typical effects of adverse living or educational circumstances, stress, and trauma. Much research has investigated the influence of family connectedness on adolescent health and wellbeing. For instance, Frauenglass and colleagues (1997) examined Year 8 students in Florida who were completing their schooling in neighbourhoods that were high-density and were considered to be low in socioeconomic status. The areas examined were also known for their exceptionally high crime rates. Of the students investigated, those reporting high rates of family connectedness and social support were significantly less influenced by their peers who were engaging in tobacco and marijuana use (Frauenglass, et al., 1997). Resnick, Harris, and Blum (1993), conducted a study on over 30,000 secondary school students who were surveyed with regard to both risk and protective factors in their lives. Family connectedness was found to act as a major protective factor against both internalising and externalising behaviours in male and female students.

With regards to the positive effects of social connectedness on adolescents, Hendry and Reid (2000) report several notable results. The initial phase of the study involved 2500 rural adolescents completing a survey about their health concerns and lifestyles. From this initial data, several representative students were selected from each participating school. These students (18 females and 19 males) took part in a further two interviews that examined adolescent health concerns in greater detail. Interestingly, more than half of the sample reported having health concerns that directly related to their relationships with their peers and friends. These relationship issues included such things as being teased or bullied, worry about being criticised by others, and establishing and maintaining friendships. These adolescents also reported positive effects of peer connectedness, citing that quality friendships involved feeling supported by the friend. They also described friendships as relationships where “evaluation was suspended, and one could receive regard, regardless of one’s ability to be an interesting or even acceptable person at times (Hendry & Reid, 2000, p. 714). They also considered that receiving good support

from their friends helped them cope more effectively with problems in their lives. Overall, it appeared that quality friendships had a positive impact on adolescents' sense of self, level of self-esteem, and operated as buffers against the typical effects of daily and major stressors (Hendry & Reid, 2000).

With regard to school connectedness, numerous research studies have found a relationship between feelings of belonging to the school environment and positive outcomes for adolescents. Gonzales and Padilla (1997) found that students were at much lower risk for school failure when they reported a strong sense of connectedness to their school, compared with students who did not feel they had such a strong connection or good support. In the study conducted by Resnick, Harris, and Blum (1993), school connectedness was found to be the most influential protective factor against externalising behaviours in the students. Similar results were found in a more recent study by Svetaz, Ireland, and Blum (2000) who examined connectedness in adolescents with learning difficulties. The researchers found that family and school connectedness were most strongly associated with lowered emotional distress, lower levels of suicide attempts and lower involvement in violence in their sample of adolescents.

For those who live and are educated in adverse circumstances, and for those who experience stress and trauma in their lives, a sense of being connected can be useful to help buffer the possibly negative effects of such situations. What is also required, however, is practical, tangible assistance. This comes in the form of social support, which can be both instrumental and emotional (Walsh, 2003). Social support has been linked with the development of resilience in numerous studies (e.g., Benard, 1996; Levitt, Guacci-Franco, & Levitt, 1993; Wang & Kovach, 1996).

Social support itself has been shown to be a highly influential protective factor against the typical negative effects of being raised in adverse circumstances. With regard to the current study's definition of resilience (i.e., a lack of behaviour problems, health problems, and perceived impact of the negative event, and above average life satisfaction and perceived wellness), social support has been shown to influence each of these variables. The link between social support and children's behavioural problems has been repeatedly reported in the literature. Anan and Barnett (1999) confirmed this link in their research examining the mediating effects of social support on attachment and social adjustment. They found that children with secure attachments to family also reported high levels of social support, and then subsequently reported lower levels of behavioural problems (including both

internalising and externalising problems) than those with poor attachment to family (Anan & Barnett, 1999).

Franco and Levitt (1998) also conducted a study that aimed (in part) to establish what contribution family support made to children's self-esteem. The authors conducted in-depth interviews with 185 Year five students in North America. It was found that family support was uniquely and positively contributing to the children's self-esteem. Those children who reported receiving higher levels of support from their families also reported higher levels of self-esteem (Franco & Levitt, 1998).

Resilience Interventions

The rise in attention that resilience has received in the last few decades has resulted in the development of interventions that aim to teach children and adolescents to be resilient. The research and knowledge base of resilience is continuing to expand, with only a partial understanding of how resilience is developed. What is understood, however, is that children and adolescents who are exposed to risk are unlikely to benefit from intervention programs that are poorly constructed or that are short-lived (Doll & Lyon, 1998). Unfortunately, there is a large body of information available on resilience that is either very loosely, or not at all, based on the resilience research. Doll and Lyon (1998) assert that a number of the interventions in schools represent a popularised notion of resilience, and are not based on sound research findings.

There is now, however, adequate knowledge of the correlates of resilience to develop effective intervention for those students at risk. These interventions tend to focus on the development of assets and resources as opposed to attempted to ameliorate risk. In an article by Cowen, Wyman, Work and Iker (1995) the authors describe how they developed and evaluated a pilot, school-based resilience intervention for inner-city school children. The program aimed to enhance the students' understanding of feelings, develop perspective-taking skills, learn social problem-solving methods, and build self- esteem. Comparison of pre-intervention data to post-intervention data revealed significant improvements in the participants according to self- and teacher-reports (Cowen et al., 1995).

The study by Lynch, Geller and Schmidt (2004) reports on the implementation and evaluation of a resilience-based program for children. The program aimed to enhance four main components of resilience in the participants: social competence, problem-solving, autonomy, and a sense of belief and purpose. Trained teachers

implemented the program by conducting classes twice a week, over a 23-week period. Results indicated that the intervention was effective in strengthening participants' social-emotional competence and positive coping skills and also at reducing the likelihood of developing antisocial or aggressive behaviour (Lynch et al., 2004).

Previous attempts to build resilience in children and adolescents have often focused on helping individuals facing general risks (often due to their living circumstances and family factors), rather than specific risks such as bullying.

Summary of Resilience Information

Research over the last two decades has helped demonstrate that resilience appears to develop through an interaction between heredity and environmental factors. This chapter has argued that such an interplay occurs among numerous aspects of the individual (self-esteem, social skills, optimism, coping skills, emotional intelligence, and perceived social support), aspects of the individual's family (parenting styles, and parent-child relationships), and characteristics associated with the social environment (sense of connectedness and social support). With a developing research and clinical focus on individuals being taught how to be resilient, this information (particularly that pertaining to the characteristics of the individual) is vital to aid in the development of intervention programs.

CHAPTER 3

Bullying and Resilience – Rationale for the Current Research

As previously stated, resilience has been defined in a number of different ways, which has impacted on the measurement of this concept in previous research. The definition used in the current research is that of Wang, Haertel, and Walberg (1994), who defined resilience as the "capacity of individuals to overcome personal vulnerabilities and environmental adversities effectively or the ability to thrive physically and psychologically despite adverse circumstances" (p. 6). Bullying is one such adverse circumstance where resilience may be needed in order to adjust successfully. A victim's experience of bullying can be seen as a combination of both personal vulnerabilities (which lead to the initiation of the bullying) and environmental adversities (the bullying itself). Many people, including parents, teachers, and even some students, consider bullying a 'right-of-passage.' It is sometimes considered an event that all children go through and must endure; something that prepares them psychologically for the 'real world.' As has been argued in the previous chapters, while life is full of challenges and disappointments that must be dealt with effectively, teaching children to simply tolerate what is essentially abuse is not acceptable (Healey, 2002). Bullying is now described by researchers in the field as an abusive and traumatic experience (Besag, 1989; Rigby & Slee, 1993) that is reported as having comparable impact, physically and psychologically, on the victims as victims of other forms of abuse (e.g., childhood sexual or physical abuse). Such a view has been held for at least the past decade by the major researchers in the area. In 1995, Boney-McCoy and Finkelhor (1995) interviewed around 2,000 children aged between ten and 16 years about their experiences of victimisation (particularly violent victimisation). It was found that most of the victimisation was perpetrated by a person within three years of the victim's age. It was therefore deemed to be 'peer' victimisation. Those children who reported being severely victimised by one of their peers also reported levels of post-traumatic stress disorder (PTSD) that were comparable to child victims of sexual assault (Boney-McCoy & Finkelhor, 1995). It is also important to highlight that bullying is a psychosocial trauma that is particularly salient to adolescents, given the importance of school and peers to their psychosocial experience and development.

As with other forms of traumatic experiences, not all individuals react in the same way to similar bullying circumstances. As discussed in the previous chapter, not all people who face adverse circumstances or traumatic experiences suffer in the

same way from the typical effects or outcomes of such events. A small proportion of individuals will continue to thrive in the face of such adversities, and these are the people who are labelled *resilient*. It is, therefore, logical that individuals exposed to bully victimisation may not all react in the same manner; that is, not all will succumb to the typical negative effects of being a victim of school bullying. Almost all students have experienced some form of bullying during their school life; however, Hoover, Oliver, and Hazler (1992) reported that many of those students did not feel that the bullying had adversely affected them to any great extent. It is these students who do not show the expected outcomes of being bullied who can be deemed to be showing what is defined as 'resilience' in the face of this major psychosocial stressor.

For the current research a specific definition of resilience was developed. The definition was based on the knowledge that victimised students tend to suffer a combination of not only increased negative outcomes, but also a loss of positive indicators. Therefore, the definition of resilience, or "victimisation resilience" for the current research was "when those students, who suffer repeated victimisation by their peers, show a lack of behaviour problems (both internalising and externalising), a lack of health problems, and a lack of perceived impact of the bullying, and report above average life satisfaction and perceived wellness." This definition is both more specific than previous definitions, but also expands on previous definitions to include positive outcomes. If this resilience could be taught, then it may be possible to protect a large number of victims of bullying from the aforementioned adverse consequences.

Resilience is considered both an innate, personality-based 'state-of-being', but also as a set of particular skills, attitudes, and behaviours (Healey, 2002). These skills include (as mentioned in Chapter 2 on general resilience) self-esteem, social skills, optimism, coping skills, emotional intelligence, and perceived and actual social support. These skills have separately been shown to affect outcomes for bully victims. Taken together they could be considered a set of relevant skills that make up victimisation resilience. The literature on each of these skills, and their influence on the psychological, emotional, and health outcomes for victims, will now be discussed.

With regard to how self-esteem affects the outcomes for victims of bullying, Glover, Gough, Johnson, and Cartwright (2000) reported that for students who were both victims and perpetrators of bullying, low self-esteem "compounded their difficulties" (p. 149). Smokowski and Kopasz (2005) also reported that because victims tend to suffer from low self-esteem, they also tend to blame themselves for

the bullying occurring, which in turn may increase the negative effects of the bullying. Not only does low self-esteem result in negative outcomes for victims of bullying, it has also been shown to prolong the victimisation (Stanley & Arora, 1998). Therefore, improving self esteem could theoretically result in a reduction in victimisation as well as an improvement in resilience.

Social skills have also been shown to help reduce the effects of bullying. De Rosier (2004) implemented a social skills intervention program with Year 3 students. Students who were selected to participate were either highly disliked by their peers, were bullied by their peers, or suffered from social anxiety. Students in the treatment group, who received the eight group-based sessions, were found to have increased positive functioning in both social and emotional domains. Regardless of their reason for participation, students who received the social skills training showed improved functioning (DeRosier, 2004).

Optimism has also been shown to influence the level of negative effects that peer victimisation has on students. Cassidy and Taylor (2005) studied 236 students between the ages of 12 and 15 years. Participants were required to complete a series of self-report questionnaires regarding their previous experiences as either a victim, bully, or both, and also about problem-solving style, optimism, locus of control, and general health. The results showed that optimism was directly linked to psychological distress; the lower a victim's score on the optimism scale, the higher their score was on the measure of psychological distress. It is, therefore, not unreasonable to expect that if victim's level of optimism was able to be improved then their levels of psychological distress would decrease.

Kochenderfer-Ladd (2004) proposed that students' differing reactions to peer victimisation and subsequent functioning was in some way due to the coping strategies employed by students. Much of the research into coping with bullying has focused on what constitutes 'poor' coping; such things as crying, doing what the bully demands, and fighting back have all been shown to increase the likelihood on future victimisation, and to negatively affect student functioning. Kochenderfer-Ladd (2004), however, found that seeking advice and conflict resolution were strategies that were associated with more positive outcomes for the victims. Conflict resolution tended to lead to a decrease in victimisation, while both conflict resolution and advice seeking were associated with fewer internalising symptoms in the victims. Once again, conflict resolution is a behaviour that is readily amenable to intervention, as will be discussed in more detail in future chapters.

With regard to emotional intelligence, there is no current research that focuses on how emotional skills would help reduce the negative impact that bullying has on victims. However, it makes intuitive sense that if a victim is able to accurately identify their own, and the bully's, emotions, they may be better placed to deal with bullying experiences. Once emotions have been accurately identified, emotional intelligence skills then allow the victim to make appropriate choices for thinking and behaving (Cooper & Sawaf, 1997; Mayer & Salovey, 1993). In a more general sense, emotional intelligence has previously been shown to be associated with increased social adaptation (Sullivan & Farrell, 1999) and also with psychological wellbeing (Goleman, 1995). Hunt and Evans (2004) also found that individuals who had encountered traumatic experiences in their lives, and who had high levels of emotional intelligence, showed fewer negative symptoms than individuals with low emotional intelligence. Given that bullying is accepted as a traumatic experience, it again makes sense that these findings would translate to adolescents' victimisation experiences; victims with high emotional intelligence would be expected to experience fewer negative outcomes than victims with low emotional intelligence. This has yet to be investigated fully in the research.

Perceived and actual social support have both been linked to how victims cope with being bullied. Rigby (2000), using a sample of 845 students aged 12 to 16 years, investigated the contribution of social support to the psychological health of victims of school bullying. He found that being a victim of bullying and perceiving low levels of social support in one's life, significantly and negatively contributed to students' general health (including anxiety, depression, and somatic complaints). He concluded that a student's overall psychological adjustment was significantly adversely affected when that student reported the presence of both risk factors of victimisation and low social support. Similar findings were reported by Rigby and Slee (1999), who examined how victimisation and social support influenced suicidal ideation in adolescents. Their results showed once again that students who reported being both victimised and having low social support, reported higher levels of suicidal ideation than other students.

The intention of making the distinction between resilience that is an individual's natural predisposition for positive attitudes and outcomes, and resilience that is a set of discrete skills, is to support the notion that resilient behaviours can be taught and learned. All the behaviours discussed thus far are skills that are amenable through intervention (as discussed in Chapter 5). Therefore, victims of school

bullying, who are not naturally predisposed to coping well with the bullying they are experiencing, could be taught the above skills. In theory, these skills could then as a buffer against the typical effects of bullying. The diagram below (Figure 1) summarises the hypothesised model of the relationship between bullying and resilience.

General Aims and Rationale

No research has yet investigated the result of teaching victimised children the aforementioned set of "resilience" behaviours, skills and attitudes, and determining the effectiveness of changing these behaviours for the child who has been exposed to bullying. As can be seen from the model, it is anticipated that those victims who are directly taught to be more resilient will then be less likely to suffer the short and long term adverse effects of bullying compared with those without these skills. The following studies aim to identify the presence of these skills in a sample of school children, by first categorising them into groups based on their levels of victimisation and resilience, and then examining the differences in skills levels between these groups. The first two phases will answer the following questions: 1) Can resilient victims of bullying be reliably identified? and 2) What variables relate to or predict resilient responses to bullying? The knowledge gathered from the first study will be used to develop and implement an evidence-based, cognitive-behavioural intervention program for victims of bullying that directly teaches them to become more resilient. The effectiveness of the intervention program will then be assessed by answering two main research questions: 1) Will participants show a statistically and clinically significant improvement in the above skills following a nine-week intervention and will these improvements be maintained 3 months after the conclusion of the program?; and 2) Will participants, following the intervention, now be able to be classified as "resilient victims?"

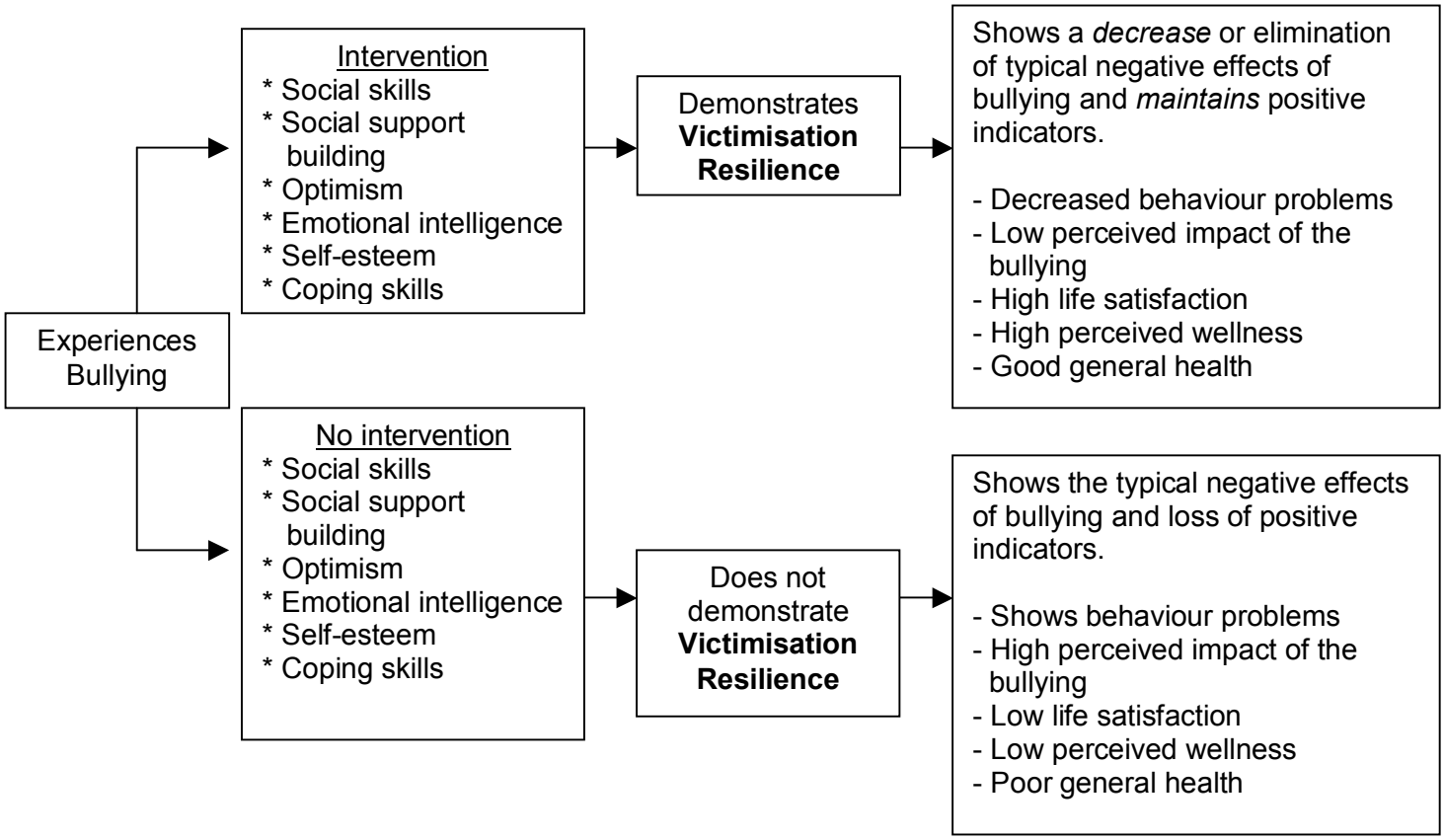


Figure 1. Proposed Relationship between Bullying and Victimisation Resilience

CHAPTER 4

Study 1: Phase 1 – Initial Screening

Rationale, Aims, and Research Questions

The prevalence of bullying in school has been researched extensively across numerous nations, school types and contexts. This previous research has suggested that a significant proportion of school students are being victimised on a regular basis (see Peterson & Rigby, 1999; Salmivalli, Lappalainen, & Lagerspertz, 1998; and Whitney & Smith, 1993, for example). What is difficult to establish, however, is the accuracy of the reported prevalence of bullying. By its very nature, bullying is a secretive practice and some researchers are concerned that bullying is being grossly underreported in the school setting (Remboldt, 1994b, cited in Clarke & Kiselica, 1997). It has, however, been established that anonymous self-report is the most reliable manner to obtain accurate results (Austin & Joseph, 1996; Whitney & Smith, 1993).

Another major concern for school-aged children is the numerous negative consequences for victims of bullying, both in the short- and long-term. These negative effects of bullying have been well researched and documented over the last two decades. Research has shown that victims of bullying tend to suffer from quite similar effects of bullying, and that these effects tend to be maintained through to early and later adulthood (Kumpulainen et al., 1998). The typical negative effects associated with being a victim of school bullying include a lowering in psychological wellbeing, poor social adjustment, various forms of psychological distress, and numerous physical symptoms and illnesses (see, for example, Duncan, 1999; Hawker & Boutlon, 2000; Kochenderfer-Ladd, 2003; and Rigby, 1999).

A construct that directly relates to the consequences of being bullied is resilience. Resilience, generally speaking, allows children and adolescents to bounce back from a variety of adverse or traumatic events and circumstances. Such adverse circumstances and events range from being raised in an impoverished environment or by a parent with a psychological illness, to being the victim of childhood abuse, including sexual abuse. Research has shown that resilience appears to develop through an interaction between heredity and environmental factors. Further, those individuals who can be deemed to be resilient appear to share a variety of common characteristics. These characteristics include skills and abilities within the individual (i.e., personal traits), aspects of the individual's family, and also features of the environment in which the individual is raised and functions within.

In previous research, bullying has not been viewed as an adverse or traumatic event to which an individual could show resilience. However, research conducted by Boney-McCoy and Finkelhor (1995) showed that bullying had comparable traumatic impact to child sexual abuse. So it seems reasonable to state that being repeatedly victimised by school peers could be deemed a traumatic event, and also an adverse circumstance that the victim is exposed to for a large proportion of their childhood and adolescence. It would also, therefore, seem reasonable to assume that, as with other adverse events, children and adolescents will react in a variety of ways to being bullied. Some will succumb to the typical negative effects of being victimised, while others will react in a manner that indicates resilience. No previously published research has looked at resilience in the context of bullying.

Previous research has also shown that there appears to be a set of skills, attitudes, and environmental factors that allow children and adolescents to continue to flourish in the face of adversity. It is theoretically logical, therefore, that such a combination or set of skills might exist that would allow victims of bullying to not only avoid the typical negative consequences of bullying, but to actually thrive despite adverse circumstances.

The current phase of Study 1 aims to investigate levels of both victimisation and resilience in a sample of secondary schools students. The study also aims to categorise students, based on their victimisation and resilience levels, into groups of adequate sizes to allow further examination of these groups.

Research Questions

1. Can resilient victims of bullying be reliably identified?
2. What variables relate to or predict resilient responses to bullying?

Method

Participants

Participants in the present study were 867 Year 7 (*n* = 312), 8 (*n* = 306), and 9 (*n* = 249) students from both independent and government schools in the North-Eastern region of Melbourne. The socioeconomic status of the areas from which the schools came varied from what would be considered lower class, to upper-middle class. The sample consisted of 394 females (45.4%) and 473 males (54.6%). Ages of the participants ranged from 11 to 18 years (*M* = 13.32, *SD* = 1.05). Participation was on a voluntary basis.

Materials

The Phase 1 questionnaire comprised eight instruments.

School Safety Survey – Revised (victimisation). To measure each participant's level of victimisation, a portion of the Fuller's School Safety Survey - Revised (Fuller, 1998) was used. The section used contained three questions pertaining to the participant's background and ten examples of different types of bullying, for example, "Left out of things on purpose." Participants were required to indicate how frequently they had experienced any of the types of bullying on a five-point Likert scale (0 = "Never", 5 = "Once or more a day"). No time frame is given to the students for them to indicate *when* the bullying had occurred. The total score is obtained by summing the ten Likert-scale responses. Higher scores indicated a higher level of victimisation being experienced. The internal consistency of this survey was checked and produced a Cronbach's α value of .74.

Child Behaviour Checklist – Youth Self-Report. To assess the participants' level of behaviour problems, the Achenbach Child Behaviour Checklist – Youth Self-Report (YSR; (Achenbach, 1991) was utilised. The checklist is both well established and widely used as a measure of internalising and externalising behaviour problems in youth aged 11 to 18 years, and is believed to provide a reasonable indication of child and adolescent adjustment (Achenbach, 1991). The instrument also contains nine subscales: Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behaviour, Aggressive Behaviour, and Other Problems. The YSR consists of 112 items (e.g., "I fail to finish things that I start"), which are rated on a three-point Likert scale (0 = Not true, 1 = Sometimes true, and 2 = Very true; (Achenbach & Rescorla, 2001). Totals are obtained by summing the items in each subscale. The higher the score, the more severe the perception of the problem behaviour. The scale takes approximately 15 minutes to complete and is appropriate for youth with at least a fifth grade reading level (Achenbach, 1982).

The YSR was normed on a sample of 1,415 youth (non-referred), and the psychometric properties of the instrument have been well documented and established (Achenbach, 1982). The Behaviour Problem subscales have been shown to have excellent internal consistency and reliability (Barkley, Anastopoulos, Guevremont, & Fletcher, 1991). The scale has been reported to demonstrate internal consistency α coefficients ranging from .71 to .95 on the various problem scales and subscales (Achenbach, 1991). Achenbach (1991) reported that the test-retest reliability was r = .65 (for the 11- to 14-year olds) and r = .83 (for the 15- to 18-year olds). Another study found test-retest scores to be r = .89 for a two-week period, r =

.74 for a two month period, and *r* = .68 for a four month period (S. N. Elliott, 1992). The test-retest reliability coefficient for the internalising problems was found to be .80, while the coefficient for the externalising problems was found to be .81 (Achenbach & Edelbrock, 1987).

Achenbach (1991) also reports that the YSR demonstrates evidence for several types of validity. The majority of the YSR items discriminate significantly between referred and non-referred youth (who were demographically matched), supporting the existence of content validity. Criterion-related validity was also shown by the ability of the quantitative scale scores to again discriminate between referred and non-referred youths, once demographic effects were partialled out (Achenbach, 1991).

Perceived Wellness Survey for Youth. To assess participants' perceptions of wellness, the Perceived Wellness Survey for Youth was utilised (PWS-Y; Bezner, Adams, & Whistler, 1999). The survey consists of 36 items that are responded to using a six-point Likert scale (1 = "Very strongly disagree", 6 = "Very strongly agree"). The instrument is based around six dimensions, including Physical (defined as a positive view or expectation of physical health), Social (defined as a perception of adequate support from peers and family, and a belief in being a provider of support for others), Emotional (defined as having a positive self-regard and security in one's identity), Intellectual (defined as being stimulated by intellectual activities to an optimal, energising level), Psychological (defined as the perception that positive outcomes will occur to life's circumstances), and Spiritual (defined as a perception of a positive meaning and purpose in life) (Adams, Bezner, Garner, & Woodruff, 1998; Bezner, Adams, & Whistler, 1999; Bezner & Hunter, 2001). Examples of items for each of the dimensions are, respectively: "I expect to always be physically healthy"; "My friends will be there for me when I need help"; "In general, I feel confident about my abilities"; "In the past, I have generally found intellectual challenges to be vital to my overall well-being"; "In the past, I have expected the best"; "I believe there is a real purpose for my life" (Adams, Bezner, & Steinhardt, 1997). Each of the six dimensions are, in turn, represented by six questions, with a composite score being calculated by summing the subscale means, and dividing them by a given denominator. Higher scores being indicative of higher levels of perceived wellness (Bezner et al., 1999).

The PWS-Y is unique in the sense that it not only focuses on the same core components of wellness as other measures (Ardell, 1986; Hettler, 1984; Travis &

Ryan, 1988), but it also includes a more thorough degree of scientific rigor in the development process (Palombi, 1992). Its uniqueness is also highlighted by the fact that instead of being based on clinical, physiological, or behavioural variables, it focuses firmly on subjective perceptions.

The PWS-Y has no published psychometric literature; however, according to Adams (personal communication, March 3, 2004, cited in Carter, 2004), the "psychometric properties of the PWS-Y are thought to be consistent with those reported on the PWS" (p. 52).

Reports on the psychometric properties of the PWS range from adequate to excellent. In terms of initial validation of the PWS, statistically significant evidence of validity was found including, factorial validity (all but one survey items loaded above .30 on a single factor), and discriminant validity (significant differences between a 'well group' and a 'non-well group', based on health professionals' reports, with t (38) = 5.46, $p < .05$, df = 38). Other evidence of validity included, convergent validity (r = .53, .59, .70), divergent validity (negative partial correlation with the Psychosis subscale of the Tennessee Self-Concept Scale), and face validity (strong correlation, r = .98, between student matches and investigator matches of PWS items to corresponding subscale definitions) (Adams, 1995; Adams, Bezner, Drabbs, Zambarabo, & Steinhardt, 2000; Adams et al., 1998; Adams et al., 1997).

The PWS total scale has excellent reported internal consistency reliability, ranging from .88 to .93 (when looking at samples of four pilot studies independently). Internal consistency reliability of each of the subscales has been found to respectively be: Physical (r = .81), Social (r = .64), Emotional (r = .74), Intellectual (r = .64), Psychological (r = .71), and Spiritual (r = .77). Split-half reliability of the subscales was also established, and the correlation coefficients were as follows: Physical (r = .71), Social (r = .52), Emotional (r = .61), Intellectual (r = .53), Psychological (r = .62), and Spiritual (r = .68) (Adams et al., 1997). Test-retest reliability has yet to be established.

Peer Victimisation Scale. To measure participants' levels of perceived victimisation (and as a confirmatory measure to be used in conjunction with the SSS-R), the Peer Victimisation Scale (PVS) (Neary & Joseph, 1994) was utilised. The PVS consists of six forced-choice items (e.g., "Some children are often teased by other children"). Three of these are related to physical victimisation (that is, being hit and pushed, picked on, and being bullied), while the remaining three are related to verbal victimisation (that is, being teased, called names, and being laughed at). The

items of the PVS reflect a number of direct negative actions that are often associated with peer victimisation (Olweus, 1993), with a total score being obtained by summing the six responses. Higher scores are once again indicative of higher perceived levels of peer victimisation, with a possible score range of 6 to 24. Similar to the SSS-R, there was no time frame given to students for them to indicate how recently they had experienced the bullying. Austin and Joseph (1996) report that the PVS is capable of differentiating those students who are victims of bullying from those who are not. Participants are required to make a two-part decision when indicating their response to each item. First, the student must decide whether the two types of students described (one with high victimisation and one with low victimisation) resembles them more, and second, they must decide whether the description is "Really true" or "Sort of true" for them.

The range of internal consistency for the PVS has been found to be between .73 and .85 (Nishina & Juvonen, 2005). Criterion validity was also assessed and found to be acceptable (Mynard & Joseph, 2000). Concurrent validity was established by Neary and Joseph (1994) who reported that girls who had reported being bullied, also scored higher on the PVS in their study.

General Health Questionnaire – 30 Item. In order to assess the participants' current mental health and psychological functioning, the General Health Questionnaire – 30 (GHQ-30; Goldberg, 1978, cited in Goldberg & Williams, 1988) was used. This measure is able to detect psychological functioning in terms of the ability or inability to carry on normal or healthy functions or social functioning (e.g., "I felt constantly under strain") (Goldberg & Hillier, 1979). The GHQ – 30 is a pencil and paper, self-administered instrument, designed for use with adolescents and adults (McDowell & Newell, 1996). Items are rated on a four-point Likert scale, ranging from 0 ("better than usual"), to 3 ("much worse than usual"), with higher scores indicating a participant's lower level of perceived wellbeing. Scores on the GHQ – 30 range from 0 to 90 points and the total score is obtained by summing all the items.

Comprehensive validation studies have been performed on the different versions of the GHQ (Cleary, Goldberg, Kessler, & Nyez, 1982; Goldberg, 1972; Goldberg & Hillier, 1979; Goldberg, Rickels, Downing, & Hesbacher, 1976). The results of these studies have shown that the GHQ – 30 demonstrates acceptable levels of validity. Criterion validity was illustrated when the scale was compared with interview measures and morbidity (Goldberg & Williams, 1988). Also, the GHQ – 30 "does possess content validity, in that each test item is known to be highly

discriminating between calibration groups of respondents with or without mental illness" (Goldberg & Williams, 1988, p.42). Construct validity of the GHQ – 30 was rated as "highly sensitive to a dimension of general restlessness and dissatisfaction of mood, which can be found in most subjects with non-psychotic mental illness" (Goldberg & Williams, 1988). With regard to reliability of the GHQ – 30, the scale has demonstrated excellent internal consistency, with a mean alpha of .87 (Goldberg & Williams, 1988). Also, split-half reliability of the GHQ – 30 was established at .92.

Multidimensional Students' Life Satisfaction Scale. To evaluate participants' levels of life satisfaction, the Multidimensional Students' Life Satisfaction Scale ([MSLSS]; (Huebner, 2001) was utilised. The MSLSS was designed to create a multidimensional profile of students' general judgements of life satisfaction. Also, more specifically, it was designed to assess life satisfaction in various, important domains in a student's life; school, living environment, family, friends, and the self. An example of an item is: "I feel bad at school". The domains were chosen on the basis of a literature review, pilot studies with school-age children, and previous research (Huebner, 1991). These five domains make up the 40 self-report items of the MSLSS, which has a readability level of grade 1.5. For use with middle and high school students, a six-point Likert scale is used, ranging from 1 ("strongly disagree") to 6 ("strongly agree"). The domains are made up of varying numbers of items, therefore, the domain and total scores are made comparable by summing the item responses and dividing by the number of domain (or total) items. Higher scores are once again indicative of higher levels of life satisfaction (Huebner, 2001).

Normative data have been obtained for elementary (grades three through five;(Huebner, 1994), middle (Huebner, Laughlin, Ash, & Gilman, 1998), and high school students (Gilman, Huebner, & Laughlin, 2000);(Greenspoon & Saklofske, 1997); (Huebner, 1994); (Huebner et al., 1998). The dimensionality of the MSLSS has also been supported by the results of exploratory factor analyses, which confirmed a hierarchical model that consisted of a general life satisfaction higher-order factor, followed by five specific lower-order domains (Greenspoon & Saklofske, 1997); (Huebner, 1994).

Evidence for both convergent and discriminant validity has also been gathered through significant correlations with other self-report well-being instruments (Dew et al., 2001, cited in Huebner, 2001; Gilman et al., 2000; Greenspoon & Saklofske, 1997; Huebner, 1994; Huebner et al., 1998). Correlations with parent reports (Dew et al., 2001, cited in Huebner, 2001; Gilman & Huebner, 1997), teacher reports

(Huebner & Alderman, 1993), and social desirability scales (Huebner et al., 1998), have further demonstrated this validity. For example, the School domain correlated (*r* = .68) with the Quality of School Life Scale (Epstein & McPartland, 1977); the Friends domain correlated (*r* = .56) with the Loneliness and Social Dissatisfaction Scale (Asher, Hymel, & Renshaw, 1984); the Family domain correlated (*r* = .61) with the Behavioural Assessment Scale for Children (parent scale;(Reynolds & Kamphaus, 1992); and the Self domain correlated (*r* = .62) with the General Self-Esteem subscale of the Self-Description Questionnaire – I (Marsh, 1988). There has also been some preliminary support for the scale's predictive validity. Correlations between the MSLSS total score and depression (*r* = .52), anxiety (*r* = -.39), and social stress (*r* = -.64), taken one year later provide such support (Huebner, Funk, & Gilman, 2000).

With regard to the reliability of the MSLSS, research has repeatedly reported acceptable consistency coefficients (Dew et al., 2001, cited in Huebner, 2001; Gilman et al., 2000; Greenspoon & Saklofske, 1997; Huebner, 1994; Huebner et al., 1998). These coefficients have tended to range between the .70s and the low .90s. With regard to the five specific domains, internal consistency α coefficients have ranged from .79 to .85 (Family domain), .81 to .85 (Friends domain), .83 to .85 (School domain), .72 to .84 (Self domain), and .79 to .83 (Living domain) (Bender, 1997). Test-retest reliability has also been examined and coefficients have been reported for two- and four-week intervals. The data again provided preliminary support for the temporal stability of the scale, with coefficients in the .70 to .90 range (Gilligan & Huebner, 2002). The scale, therefore, has been deemed suitable for research purposes.

Impact of Event Scale. The Impact of Event Scale (IES) (Horowitz, Wilner, & Alvarez, 1979) is a self-report measure that taps into the two most commonly reported experiences in response to a traumatic event – intrusive symptoms (e.g., "I had dreams about it") and avoidance symptoms (e.g., "I tried to remove it from memory"). Intrusive symptoms include nightmares, and intrusive thoughts, images, or feelings. Avoidance symptoms include any attempts to reduce or avoid experiences associated with the traumatic event and the subsequent blunting of responsiveness. The scale is designed primarily to assess current subjective distress linked with any specific life event (Corcoran & Fischer, 1994; Horowitz et al., 1979).

The scale comprises 15 items, seven of which assess intrusive symptoms, the other eight measure avoidance symptoms, and combined (summed) they provide a

total subjective stress score. Each item is linked to a particular stressor, which in this case was ‘experiencing bullying’ (Briere, 1997); (Horowitz et al., 1979). Participants are required to respond to items on a four-point Likert scale relating to how often each item has occurred in the past week. For the purposes of this research, the four points on the scale were: 1 (“Didn’t experience this item”), 2 (“Experienced this item a little”), 3 (“Experienced this item quite a bit”), and 4 (“Experienced this item a lot”). Participants were also required to indicate how often the items were experienced immediately after the event (in this case, bullying), one day after the event, and one week after the event.

Two samples were used to provide normative data for the original scale. The first sample was a group of 35 outpatients who had recently lost a parent and were seeking treatment to help them cope. The second sample was a group of 37 volunteers who had also recently lost a parent. The two groups produced a mean total stress score on the IES of 39.5 (*SD* = 17.2) (Horowitz, 1994). The IES has also been shown to successfully discriminate between a range of traumatised and non-traumatised groups.

Both content and construct validity have been established with the IES. It is well documented that the IES’s 15 items capture the impact (indicated by intrusive and avoidance symptoms) of a specific traumatic stressor in the week following the event, indicating content validity (Briere, 1997; Weiss & Marmar, 1997). Construct validity, however, has been shown through the use of cluster analysis on the original 20 items of the IES. Four clusters were established during the analysis; the first two clusters contained the 15 items that would become the final items of the IES. The third and fourth clusters contained the final five items. The first cluster contained items from the clinically derived intrusion subset, while the second cluster included the clinically derived avoidance subset. The use of the intrusion and avoidance subscales was therefore supported (Horowitz et al., 1979).

Both subscales of the IES have received very good internal consistency results. Based on two independent samples, coefficients have ranged from .79 to .92. The average internal consistency coefficient for the intrusion subscale was .86, while for the avoidance subscale it was .90 (Horowitz, 1994). Test-retest reliability was also deemed satisfactory after the IES was administered to a sample twice, with an interval of one week between ratings (Horowitz et al., 1979). Coefficients were established for the total stress score, intrusion subscale, and the avoidance subscale; these were .87, .89, and .79, respectively (Horowitz, 1994).

Emotional Impact Scale. The Emotional Impact Scale (EIS) is a short, ten-item scale developed specifically for use in the present study. Its purpose is to measure the emotional impact of bullying on the participants in the study. The ten items consist of adjectives, used by previous victims of bullying, which describe how they had felt after being bullied (e.g., “I felt guilty”). The adjectives are derived from several websites (e.g., www.kidshelpline.com.au; www.bullyingnoway.com.au), dedicated to the issue of bullying, which summarised anecdotal accounts from students who had been victimised at school. Participants were asked to indicate on a four-point Likert scale, how much they had experienced each adjective over the week following the bullying incident. The items of the EIS were immersed into the existing Impact of Event Scale, to become a combined measure of the overall impact of the bullying. For a copy of these combined scales, please refer to Appendix A.

Procedure

Based on a literature review of current research in the field of bullying and the effects of bullying, the Phase 1 questionnaire package was compiled (please note that the Phase 2 questionnaire was also developed at this time, and is described below). Plain Language Statements (PLS) for principals, guardians, and participants, and Consent Forms for guardians and participants were also developed (please refer to Appendices B through F for copies).

Approval for the research was obtained from the RMIT Human Research Ethics Committee, and subsequently, both the Department of Education and Training (DET) and the Catholic Education Office (CEO). Copies of the approval letters, from RMIT, DET, and CEO, can be seen in Appendices G, H, and I.

A pilot study was then conducted with a sample of five students from a local independent school. Parental consent was obtained before the students completed both the Phase 1 and Phase 2 questionnaire packages. Based on the findings of the pilot study, several amendments were made to both packages (including the removal of some unnecessary sections of questionnaires, the correction of formatting and spelling errors, and estimated completion times were added to the covering pages of the questionnaire packages).

Upon completion of the pilot study, letters (as well as copies of the questionnaire packages, PLSs, and Consent Forms) were sent to schools in the North-Eastern region of Melbourne. Thirteen Catholic, 10 Independent, and 86 government schools received letters. Numerous schools sent refusal letters immediately, and those who did not reply received a phone call to enquire about their

participation status. Six schools (one independent and five government schools) indicated that they wished to participate in the study.

In order for Phase 1 to begin, Consent Forms (guardian and participant versions) and PLSs (guardian and participant versions) were sent home with all the students in Years 7, 8, and 9 at each of the schools. After several weeks, and a very poor response rate, another round of forms was sent home, this time with an incentive for students to return the forms. A note was added to each of the forms that informed students that when they returned their forms (even if their parents had circled “I do not consent”), their names would go into a raffle to win a $60 music voucher. Once an adequate number of participants had returned their forms, times were set up for the questionnaire package to be completed. The independent school has a qualified psychologist located at the school who oversaw the completion of the questionnaire package. All other schools were attended by the principal researcher, who ensured the correct completion of the questionnaire package.

Questionnaire packages were completed in groups during regular class time. No actual time restraint was placed on the students; however, on average it took approximately 45 minutes to complete. The participants were told they were to ask questions if they did not understand any part of the surveys, and that they could also withdraw from participating in the study at any point. The participants were also told that they were not required to place any identifying information on the questionnaires to ensure anonymity, and that only the researcher would be seeing the questionnaires, to ensure confidentiality. The Plain Language Statements sent to both parents or guardians and participants stated that personal details such as names and addresses would not required for this study; however, they would be allocated a code number. It was made clear that this was a requirement of the Department of Education and Training, and that the list of code numbers and names would be held in confidence by a 3rd party not directly involved with the project. Participants were informed that they would be identified by one of the researchers only in the unlikely event that their responses were of concern and that any information that they provide could be disclosed only if (1) it was to protect them or others from harm, (2) a court order was produced, or (3) they provided the researchers with written permission. The codes would also be used to go back and identify those participants that qualified to complete the second phase of research.

Once the questionnaires were completed, each participant's data was analysed using, Statistical Package for the Social Sciences (SPSS) version 13.0 for Windows.

Results

Exploratory data analyses involving visual inspection of stem-and-leaf and normality plots, and assumptions testing procedures were performed on all scale measures to ensure that there were no obvious or serious violations of the assumptions underlying parametric procedures; specifically, normality, linearity, and homogeneity of variance. There were no serious violations of the assumptions noted for any of the variables and all were deemed suitable for parametric analysis.

Phase 1 involved the division of participants into four groups based on 1) their level of perceived victimisation, and 2) their level of perceived general wellbeing. To obtain these groups, the following steps were taken:

1. *z*-scores were computed for all of the questionnaires subscales and total scores
2. Compound scores were developed by summing the two victimisation scores (from the VSSS-R and the PVS) and then averaging them to obtain an overall victimisation *z*-score. The rationale for calculating these compound scores was that, even though the scores for the two victimisation scores correlated significantly, there was still a notable level of unique variance related to each measure (refer to Table 4).
3. The four variables related to general wellbeing (CBCL, PWS-Y, GHQ-30, and MSLSS) were entered into a factor analysis. Using the SPSS default criterion for factor selection (i.e., eigenvalues greater than 1; principle components method of extraction), the four variables were found to load on one factor with an eigenvalue of 2.52. This factor accounted for 63 percent of the variance, and the communalities for each variable were substantially greater than .5. This factor was named "positive health."
4. Compound scores were then developed for Positive Health by summing the four positive health variables, and then averaging them to obtain an overall positive health *z*-score. This was considered preferable to using a factor scores, given the cited problem associated with the use of factors scores in this context (see, for example, Stevens, 1992).
5. Participants' victimisation *z*-scores were then rank ordered.

6. Participants were assigned either a ‘high’ or ‘low’ categorisation based on three splits of the data: median splits, quartile splits, and splits based one 1 standard deviation from the mean.
7. The same procedure was followed for the participants’ positive health *z*-scores.
8. All possible crosstabulated combinations of the positive health and victimisation categories were examined, with the aim of obtaining adequate cell sizes for each of the groups. The groups were subsequently based on splits of 1 *SD* from the mean for victimisation *z*-scores, and median splits for positive health *z*-scores. This resulted in groupings based on extremely high or low levels of victimisation, and above or below average levels of positive health.
9. The groups were labelled as follows:
    a. Low Victimisation/Low Positive Health = Poor Health Non-Victims.
    b. High Victimisation/Low Positive Health = Non-Resilient Victims.
    c. Low Victimisation/High Positive Health = Healthy Non-Victims.
    d. High Victimisation/High Positive Health = Resilient Victims.

Those participants who were categorised into one of the four groups were asked to participate in Phase 2.

Frequency statistics for each of the groups can be seen in Table 1.

Table 1

Frequency Statistics for the Four Classified Groups

	Group	Frequency	Percent
Valid	Resilient Victim	50	5.8
	Non-Resilient Victim	80	9.2
	Healthy Non-victims	88	10.1
	Poor-Health Non-victims	72	8.3
	Total	290	33.4
Total		867	100

Note: The large number of missing values are the participants that could not be classified into any of the four groups.

Table 1 shows that healthy non-victims were the largest group, followed closely by non-resilient victims, and then poor-health non-victims. Resilient victims were the small group formed. Descriptive statistics for each of the impact variables

(behaviour problems, perceived wellness, general health, life satisfaction, and perceived impact) can be seen in Table 2.

Table 2

Descriptive Statistics for the CBCL, PWS-Y, GHQ-30, MSLSS, and IES by Group

	Group	*M*	*SD*
Child Behaviour Checklist	Resilient Victim	158.24	17.19
	Non-Resilient Victim	128.18	29.37
	Healthy Non-Victim	186.06	11.60
	Poor-Health Non-victim	164.51	21.41
Perceived Wellness Survey for Youth	Resilient Victim	154.42	17.94
	Non-Resilient Victim	132.59	19.68
	Healthy Non-Victim	175.84	20.68
	Poor-Health Non-victim	151.35	18.11
General Health Questionnaire – 30 item	Resilient Victim	100.56	7.76
	Non-Resilient Victim	84.81	16.41
	Healthy Non-Victim	108.18	6.01
	Poor-Health Non-victim	94.79	9.34
Multidimensional Students' Life Satisfaction Scale	Resilient Victim	182.42	18.98
	Non-Resilient Victim	154.03	21.19
	Healthy Non-Victim	207.93	15.70
	Poor-Health Non-victim	176.36	20.33
Impact of Event Scale	Resilient Victim	485.24	92.57
	Non-Resilient Victim	438.92	104.64
	Healthy Non-Victim	N/A	N/A
	Poor-Health Non-victim	N/A	N/A

Note: *N* = 50 (Resilient Victim); 80 (Non-Resilient Victim); 88 (Healthy Non-Victim); 72 (Poor-Health Non-Victim). The two non-victim groups did not have scores on the IES as participants only completed this measure if they had experienced bullying from peers.

Table 2 shows that in all cases, the healthy non-victims scored highest compared with all other groups. Measures were coded so that higher scores were indicative of more positive functioning, regardless of whether the scale was measuring a positive or negative variable. Table 2 also shows that non-resilient victims scored the lowest on all areas of functioning, the expected result for individuals experiencing peer victimisation. The exception to this was the result for the Impact of Event Scale. In this case, non-resilient victims actually scored lower (or more positively) than resilient victims. In order to validate the group categorisations, a

series of independent samples *t*-tests were conducted on each of the measures that made up the positive health factor. Specifically, these comparisons focused solely on the resilient and non-resilient victim groups, as these were the two groups of major theoretical interest. The results of the *t*-tests can be seen in Table 3.

Table 3

Independent Samples t-tests for the PWS-Y, CBCL, GHQ-30, MSLSS, and IES

Measure	*t*	*df*	*p*
Perceived Wellness Survey for Youth	6.33	127.00	<.001
Child Behaviour Checklist	7.22	126.69	<.001
General Health Questionnaire – 30 Item	7.27	122.23	<.001
Multidimensional Student's Life Satisfaction Scale	7.75	127.00	<.001
Impact of Event Scale	1.81	101.00	.074

Table 3 shows that only the Impact of Event Scale returned a non-significant result.

The relationships among the measures was also investigated and can be seen below in Table 4.

Table 4

Correlation Matrix of all Phase 1 Variables

		1	2	3	4	5	6	7
1. SSS-R	Pearson Correlation	-	-.51	- .29	.60	-.26	-.29	.35
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001	<.001
2. CBCL	Pearson Correlation		-	.54	-.38	.47	.43	-.40
	Sig. (2-tailed)			<.001	<.001	<.001	<.001	<.001
3. PWS-Y	Pearson Correlation			-	-.30	.51	.63	-.37
	Sig. (2-tailed)				<.001	<.001	<.001	<.001
4. PVS	Pearson Correlation				-	-.27	-.31	.36
	Sig. (2-tailed)					<.001	<.001	<.001
5. GHQ-30	Pearson Correlation					-	.46	-.31
	Sig. (2-tailed)						<.001	<.001
6. MSLSS	Pearson Correlation						-	-.26
	Sig. (2-tailed)							<.001
7. IES	Pearson Correlation							-
	Sig. (2-tailed)							

Table 4 shows that all correlations were significant at the p <.001 level. All correlations were also seen to be in the expected direction. The strongest correlation

was seen between the Multidimensional Students' Life Satisfaction Scale and the Perceived Wellness Scale for Youth, indicating that as a student's perceived wellness increases, so does their level of life satisfaction. The second strongest correlation was seen between the two victimisation scales, indicating that students are answering the two questionnaires in a very similar fashion. The weakest correlation was seen between the Multidimensional Students' Life Satisfaction Scale and the Impact of Event Scale; this was a negative correlation. So the greater the perceived impact of the bullying, the lower a student's life satisfaction. Although the correlation was the weakest in the matrix, it was still significant at the <.001 level.

Study 1: Phase 2 – Examining Resilient Victims of Bullying

Method

Participants

Participants from Phase 2 were those students who were included into one of the four categories described above. The sample consisted of 111 students from each of the six participating schools (these were the students whose parents/guardians gave consent for them to participate in the second phase of the research). The students remained in the same groups that they were assigned to in Phase 1. The Resilient Victim group consisted of 25 students (10 females, 15 males), while the Non-Resilient Victim group consisted of 33 students (8 females, 25 males).The Healthy Non-Victim group consisted of 30 students (16 females, 14 males), while the Poor-Health Non-Victim group consisted of 23 students (13 females, 10 males). For this phase of the study there were 42 (37.8%) Year 7 students, 41 (36.9%) Year 8 students, and 28 (25.2%) Year 9 students. Overall, the sample consisted of 47 females (42.3%) and 64 males (57.7%). Ages of the participants ranged from 11 to 15 years (M = 13.39, SD = 1.02). Again, participation was on a voluntary basis.

Materials

The Phase 2 questionnaire consisted of ten instruments.

Individual Protective Factors Index. The Individual Protective Factors Index (IPFI) (Springer & Phillips, 1997) is a 71-item questionnaire designed to assess adolescents' level of resilience, although for the purpose of the current research, the IPFI's subscales were of most interest. It is suitable for use with adolescents aged between ten and 16 years. The authors define resilience using ten attitudinal orientations within three key domains: Social Bonding, Personal Competence, and Social Competence. Each of these domains is made up of a number of dimensions

(discussed below). These dimensions were commonly referred to in protective factors literature and were associated with adaptive personal and social development in youths (e,g,, “It is important to think before you act”). Each dimension contains six items, except for self-efficacy, which contains seven items. Attitudes towards alcohol and other drugs are also assessed by ten items within the questionnaire. Scores are obtained for the ten orientations by summing the responses and dividing by the number of items in that orientation. Domain scores are subsequently obtained by summing the relevant orientation scores.

Social Bonding is defined as the positive response and commitment to basic social establishments such as family, school, and the community. This domain measures the level of satisfaction participants feel with their involvement in, and motivation for, accomplishment or effort in various social establishments. It is comprised of three dimensions – family bonding, school bonding, and prosocial norms (Basca, 2002), and relates closely to the concept of social support.

Personal Competence has been defined as the participant’s sense of personal identity. This is associated with various areas of adolescent development, including personal development, development of self-image and outlook, the development of decision-making ability in the youth, and the development of control of a youth’s future (Basca, 2002). It comprises four dimensions – self-concept, self-control, self-efficacy, and positive outlook, and relates closely to the concept of self-esteem.

Social Competence has been considered to be a commonly identified attribute of resilient children. This domain focuses on a youth’s ability to be responsive, caring, and flexible in social situations. It is comprised of three dimensions – assertiveness, confidence, and cooperation (Basca, 2002), and relates closely to the concept of social skills.

With regard to the psychometric properties of the IPFI, both reliability and validity analyses were conducted with a sample of 2,416 youths in 15 states across the USA. Internal consistency α coefficients were calculated to range from .46 (for assertiveness in the Social Competence domain), to .65 (for self-control in the Personal Competence domain). Reliability was established for the total IPFI score as being .93. Positive construct validity of the IPFI was established through the national validation sample (n = 2,416).

Life Orientation Test – Revised. The Life Orientation Test – Revised (LOT-R) (Scheier, Carver, & Bridges, 1994), was used to assess participants’ dispositional optimism. The test focuses primarily on the measurement of generalised outcome

expectancies, as dispositional optimists are said to expect positive outcomes in the future, even in trying times (Scheier & Carver, 1985); (Scheier et al., 1994). The LOT-R is a revised version of the original Life Orientation Test (LOT) (Scheier & Carver, 1985). Two items from the original scale were eliminated from the current scale as they assessed coping style more than positive expectations for future outcomes, leaving the LOT-R with ten items. Participants are required to rate their level of agreement with the items based on a five-point Likert scale, ranging from 1 ("Strongly Disagree"), to 5 ("Strongly Agree"). Only six of the ten items are scored, the other four items are filler items (Scheier et al., 1994). Three of the items are positively worded (e.g., "In uncertain times, I usually expect the best"), while three of the items are negatively worded and require reverse coding before scoring (e.g., "If something can go wrong for me, it will"). The total score is obtained by summing the six non-filler items. Scores can range from 6 to 30, with higher scores being indicative of higher level of dispositional optimism.

The LOT-R was normed on a sample of 2,055 undergraduate students from Carnegie Mellon University, Pennsylvania. Students completed both the LOT and he LOT-R between autumn 1990 and spring 1993. The average optimism score was 14.33 and the correlation between the two scales was .95 (Scheier et al., 1994). The internal consistency coefficient α for the LOT-R was found to be .78. To assess the test-retest reliability of the LOT-R, the scale was administered to undergraduates at varying time intervals. The scale was re-administered at four months, 12 months, 24 months, and 28 months. The test-retest reliability correlations were .68, .60, .56, and .79, respectively. Scheier and colleagues (1994) concluded that these findings suggested an acceptable level of internal consistency and that the LOT-R was stable across time.

In order to determine the convergent and discriminant validity of the LOT-R, the scale was correlated with several other measures including: the Self-Mastery Scale (self-mastery; Pearling & Schooler, 1978, cited in Scheier et al., 1994); the State-Trait Anxiety Inventory (trait anxiety; Spielberger et al., 1974, cited in Scheier et al., 1994); the Guilford-Zimmerman Temperament Survey (neuroticism; Guilford et al., 1976, cited in Scheier et al., 1994); and the Rosenberg Self-Esteem Scale (self-esteem; Rosenberg, 1965, cited in Scheier et al., 1994). Correlations with the scales were $r = .55$, $r = -.59$, $r = -.50$, and $r = .54$, respectively.

Adolescent Coping Scale – Short Form. The Adolescent Coping Scale – Short Form (ACS) (Frydenberg & Lewis, 1993) was used to assess participants' coping

responses. The scale contains 19 self-report items, 18 of which correspond to the 18 coping strategies devised by Frydenberg and Lewis (1993), which are later grouped to become three specific coping styles. The final item asks participants to report any additional coping strategies that they use that had not been mentioned in the preceding 18 items. Participants are required to respond to each of the 18 items, indicating the frequency of their use, on a five-point Likert scale ranging from 1 ("Doesn't apply to me or don't do it"), to 5 ("Used a great deal"). Totals for the three coping styles are obtained by summing the items relevant to them (scores range from 5 to 35 on the various styles). Higher scores indicate more frequent use of the particular coping style.

The 18 strategies can then be grouped into three specific coping styles: Solving the Problem (for example, "Work at solving the problem to the best of my ability"), Reference to Others (for example, "Improve my relationship with others), and Non-Productive Coping (for example, "Worry about what will happen to me"). Solving the Problem includes any strategies that move toward solving the problem at hand, including focusing on the positive and seeking relaxing diversion (Frydenberg & Lewis, 1993). Reference to others focuses on strategies that make use of and engages others when attempting to cope. Such strategies include, seeking social support and investing in close friends (Frydenberg et al., 2003). Finally, Non-Productive Coping refers to those strategies that appear to be less productive such as "avoidance strategies generally associated with an inability to cope," (Frydenberg & Lewis, 1996). These include such things as worrying, wishful thinking, and ignoring the problem. The three coping styles were found during, and have been replicated by, factor analysis.

The short form of the ACS demonstrates adequate validity and moderate reliability with α coefficients of .61 (Solving the Problem), .50 (Reference to Others), and .66 (Non-Productive Coping) (Frydenberg & Lewis, 1993). The authors note that "in general, the 3 scales appear to discriminate quite satisfactorily and have moderate reliability" (Frydenberg and Lewis, 1993, p. 42).

Social Support Index. To assess participants' level of perceived social support, the Social Support Index (McCubbin, Patterson, & Glynn, 1982) was used. The index measures the degree to which a student feels that they, and their family, are embedded in the community and to what degree their community provides support (emotional, esteem, and network). The index contains 17 items that are responded to on a five-point Likert scale. The scale ranges from 0 ("Strongly Disagree"), to 4

("Strongly Agree"), and assesses the degree of agreement the participant has with each statement about social support. Examples of items include "If I had an emergency, even people I don't know in this community would be willing help", and "I have friends who let me know they value who I am and what I can do" (McCubbin et al., 1982). Six of the 17 items are negatively worded and must be reversed scored before a total score can be calculated, which can range from 0 – 68 (McCubbin et al., 1982; McCubbin, Thompson, & McCubbin, 1996). Higher scores are once again indicative of higher levels of perceived social support by the participant.

In a study of 1,000 Western European families, Lavee, McCubbin, and Patterson (1985), reported internal consistency reliability of the SSI to be .82. Test-retest reliability has also been established at .83 (McCubbin et al., 1996); however, the authors did not provide any specific information about the populations from which the data were obtained. The SSI also has a validity coefficient (correlation with criterion of family well-being) of 0.40.

Coopersmith Self-Esteem Inventory. In order to assess each participants' level of self-esteem, the Coopersmith Self-Esteem Inventory (SEI) Coopersmith, 1967, cited in Basca, 2002) was used. The inventory is based on Coopersmith's definition of self-esteem, which states that self-esteem is the attitude that one holds of oneself (either of approval or disapproval), and the extent to which one believes one is capable and worthy (Coopersmith, 1981). The SEI consists of 58 self-report items, which participants respond to in the format of "Like me" or "Unlike me." It measures evaluative attitudes that people hold towards themselves in five areas: General (26 items, for example, "I have a low opinion of myself"), Social (8 items; e.g., "I am popular with kids my own age"), Academic (8 items; e.g., "I often get discouraged at school"), Family (8 items; e.g., "My parents understand me"), and a Lie scale (8 items; e.g., "I never worry about anything") (Basca, 2002). If a high score results from the lie scale, it may be an indication that the participant was aware of the intentions of the inventory, and thus, answered in a socially desirable manner. In such a case, it may be necessary to exclude these participants. For the current research, the School Form was utilised. This version of the inventory is used to assess participants between the ages of eight and 15 years. Scores for each of the subscales are obtained by summing the relevant responses. Again, high scores on the SEI indicate high levels of self-esteem.

With regard to the reliability of the SEI, internal consistency, test-retest and split-half reliability have all been established. Spatz and Johnson (1973) used the SEI

with 600 participants in Years 5, 9, and 12 in a rural school district. Kuder-Richardson reliability estimates were calculated from 100 inventories from each year level. Coefficients were obtained for each year level and were .81, .86, and .80 for Years 5, 9, and 12, respectively. To establish test-retest reliability, Coopersmith (1981) took a sample of 50 Year 5 students and tested them at a five-week interval, and found reliability to be .88. In another sample of 56 students, the test-retest reliability was found to be .70 after a three-year interval. In a study by Fullerton (1972), split-half reliability was reported to be .87 for students in Years 5 and 6 (N = 104).

Construct, content, and concurrent validity have also been established. In a series of studies by Kokenes (1974, 1978, cited in Coopersmith, 1981), construct validity was confirmed after 7,600 students (Years 4 through 8) were assessed. The studies confirmed the existence of construct validity of each of the subscales as measuring sources of self-esteem. Mruk (1995), reported that construct validity was demonstrated by the fact that the SEI is consistent with past research on self-esteem. He also reported that content validity was present in terms of how the questions in the SEI relate to what is known about self-esteem. The SEI was correlated with the SRA Achievement Series scores of 87 participating children in Year 4 to establish concurrent validity. Simon and Simon (1975, cited in Coopersmith, 1981) found the correlation coefficient to be .33, which the authors interpreted as reasonable proof of concurrent validity.

Bully Behaviour Scale. To establish participants' level of bullying perpetration, the Bully Behaviour Scale (BBS) (Austin & Joseph, 1996) was administered. Similar to the PVS, the BBS contains six forced-choice items (e.g., "Some children often tease other children"). Three of these are related to physical bullying perpetration (e.g., hitting and pushing, picking on others, and bullying others), while the remaining three are related to verbal bullying perpetration (e.g., teasing, calling others names, and laughing at others). The items of the BBS reflect a number of direct negative actions that are often associated with bullying perpetration (Olweus, 1993), with higher scores, once again, being indicative of higher perceived levels of bullying perpetration (with a possible score range of 6 to 24). Again, similar to the PVS, Austin and Joseph (1996) report that the BBS is capable of differentiating (on the basis of self-report) those students who are victims of bullying from those who are not. Participants are required to make a two-part decision when indicating their response to each item. First, the student must decide whether the two types of students described (one with high perpetration and one with low perpetration) resembles them

more, and second, they must decide whether the description is “Really true” or “Sort of true” for them. The range of internal consistency for the BBS was found to be .82 (Austin & Joseph, 1996).

Piers-Harris Children’s Self-Concept Scale. The Piers-Harris Children’s Self-Concept Scale, also known as “The Way I Feel About Myself” (PHCSCS) (Piers, 1984) was used to assess the participants’ self perceptions, self-attitudes, and correlates of those attitudes. The instrument consists of 80 self-report items, which participants (aged between eight and 18 years of age) respond to on a dichotomised scale (“Yes”/”No”). In an attempt to reduce the likelihood of participants responding in a biased way, the positively or negatively worded items are balanced through the scale, which should take around 15 to 20 minutes to complete (Piers, 1984). The scale measures cluster scales of self perceptions in relation to six areas of functioning: behaviour (e.g., “I often get into trouble”), intellectual and school status (e.g., “I am good at my school work”), physical appearance (e.g., “I have pretty eyes”), anxiety (e.g., “I worry a lot), popularity (e.g., “It’s hard for me to make friends”), and happiness/satisfaction (e.g., “I am a happy person”). However, as the scale was first developed in the 1960’s, and has not been reassessed, it is recommended that it be used as a measure of general self-concept, and to not focus on the cluster scales. Therefore, a total score was used by summing all the items, giving a possible range of scores from 80 to 160.

The 140-item version of the PHCSCS was normed on a population of 1,183 students from Years 4 through 12. Internal consistency was established through the use of the Kuder-Richardson Formula 21 method. The resulting coefficients ranged from .78 to .93. To check this consistency, the Spearman-Brown Odd-Even Formula was used on half of the sample. The resulting coefficients ranged from .87 to .90 (Piers, 1984). Test-retest reliability was confirmed after an interval of four months, after which the reliability coefficients ranged from .71 to .72. The 80-item version (as used in the current research) was found to have improved reliability, with a coefficient of .77 being found after a two- and four-month interval (Wing, 1966, cited in Piers, 1984). Overall, the scale has demonstrated good internal consistency and adequate temporal stability.

With regard to the validity of the scale, Mayer (1965, cited in Piers, 1984) compared PHCSCS scores with scores on the Lipsitt’s Children’s Self-Concept Scale (Lipsitt, 1958, cited in Piers, 1984) in a group of 98 special education students (12 to 16 years of age). A correlation of .68 was found. Cox (1966, cited in Piers, 1984)

found negative correlations when comparing PHCSCS scores with the “Big Problems” subscale and the “Health Problems” subscale of the SRA Junior Inventory. The correlation coefficients were -.64 and -.48, respectively.

School Safety Survey – Revised (reversed version). To measure each participant’s level of bullying perpetration (and as a confirmatory measure to be used in conjunction with the BBS), the same portion (as described previously in Phase 1) of the Fuller’s School Safety Survey - Revised (Fuller, 1998) was used. However, in this phase, the items were re-written to elicit responses related to the *perpetration* of bullying, not victimisation of the participants. The first section again contained three questions pertaining to the participant’s background and ten examples of different types of bullying. Participants were required to indicate how frequently they had perpetrated any of the types of bullying on a five-point Likert scale (0 = “Never”, 5 = “Once or more a day”). Higher scores indicated a higher level of bullying perpetration. Given the purpose built nature of this scale, no relevant psychometric data is available. Please refer to Appendix J for a copy of this survey.

Social Skills Rating System. The Social Skills Rating System (SSRS; (Gresham & Elliott, 1990) was used to assess those behaviours that affect children’s interaction with their parents, teachers, and their peers; that is, their social skills. For this investigation, only the Student Form (for secondary students) was used, as opposed to also using the teacher and parent questionnaires. The Student Form comprises 39 items and measures cooperation (e.g., “I ask before using other people’s things”), assertion (e.g., “I start talks with classroom members”), empathy (e.g., “I try to understand how my friends feel when they are angry, upset, or sad”), and self-control (e.g., “I disagree with adults without fighting or arguing”). Participants are required to respond on a three-point Likert scale for two types of ratings. The first rating relates to how *frequently* the participant performs the particular behaviour (0 – “Never”; 1 – “Sometimes”; and 2 – “Very Often”), while the second rating relates to how *important* the participant thinks the particular behaviour is (0 – “Not Important”; 1 – “Important”; and 2 – “Critical”) (Basca, 2002). Only the frequency scores were used in the present study. Subscale scores are obtained by summing the relevant items, with a possible range of 39 to 117 (higher scores are indicative of higher levels of social skills).

The SSRS was normed on a population of 4,170 students from diverse backgrounds, from 19 states across the U.S. Internal consistency coefficients have been reported by the authors to range from .81 to .95 (Gresham & Elliott, 1990). Test-retest reliability was also established, after a four-week interval with 288

students, to range from .75 to .88 on the various scales. To establish concurrent validity, the SSRS was correlated with the Social Behaviour Assessment (SBA; Stephens, 1978, cited in Gresham & Elliott, 1990), the Child Behaviour Checklist – Teacher Report Form (CBCL-TRF; Achenbach & Edlebrock, 1983, cited in Gresham & Elliott, 1990), and the Harter Teacher Rating Scale (TRS; Harter, 1985, cited in Gresham & Elliott, 1990). Moderate to high correlations were found between the aforementioned scales and the social skills scales of the SSRS. More specific psychometric information about this scale can be found in the SSRS manual (Gresham & Elliott, 1990).

Mayer-Salovey-Caruso Emotional Intelligence Test – Youth Version – Research Edition. To assess participants' levels of emotional intelligence, the Mayer-Salovey-Caruso Emotional Intelligence Test – Youth Version, Research Edition (MSCEIT-YV-R) was used. The test is still in its research form, and thus, there is limited psychometric information available. This scale is a youth version of the well-established MSCEIT. The MSCEIT-YV-R is designed for use with pre-adolescents and adolescents aged between ten and 18 years, and has a readability level at the fourth-grade. The MSCEIT-YV-R is an ability-based, self-report test, containing 184 items. The items cover four emotional intelligence abilities: Perceiving Emotion (the ability to accurately perceive emotion), Using Emotion (the ability to use emotions to facilitate thinking, problem solving, and creativity), Understanding Emotion (the ability to understand one's own and others' emotions), and Managing Emotion (the ability to manage emotions for one's personal growth). The test produces a single overall performance score, as well as scores for Emotional Experience and Emotional Reasoning.

No psychometric data is yet available for the MSCEIT-YV-R.

Procedure

Based on the findings of the analysis of Phase 1 data, the 111 participants were identified using the codes from the first questionnaire package. Schools were then given lists of the participants who would be required to complete Phase 2. Times were negotiated with the schools as to when Phase 2 could be completed. Each school organised two, one-hour sessions in which to complete the Phase 2 questionnaire. The authors of the MSCEIT-YV-R asked for a separate consent form to be completed by parents or guardians, which required parents or guardians to provide some demographic information that the present research did not require. The company publishing the MSCEIT-YV-R required this consent form before they would

score the response sheets sent by the primary researcher in the current study. During the initial Phase 2 session, in which the Phase 2 questionnaire package was completed, these aforementioned consent forms were distributed to the participants.

Participants were told that they had been selected to complete Phase 2 because each of them had responded to the Phase 1 surveys in a different manner. They were told that some of them had scored high on certain questionnaires, while others had scored low and vice versa. It was explained that this allowed a "random" group of students to complete the Phase 2 questionnaire package and the MSCEIT-YV-R. This was done to ensure that no students felt like they had been selected based on their victimisation status alone.

Once again, the questionnaire package was completed in a group setting, during regular class time. There was no time limitation placed on the participants; however, it took them an average of approximately 45 minutes to complete. Again, participants were instructed that they could ask questions at any time if they were unsure, and that they could withdraw from participating in the study at any point in time. Participants were told their answers would be anonymous, as they were not required to place any identifying information on the questionnaires. Participants were also assured that their answers would be confidential, as only the researcher would have access to their questionnaires.

After the questionnaires were completed, each participant's data was entered into SPSS version 13.0 for Windows for analysis.

Results

Missing data from the Phase 2 questionnaire were subjected to missing values analysis (Tabachnick & Fidell, 2001). An examination of the missing data revealed that missing values were randomly distributed and spread evenly across all variables. It was also established that less than 5% of the sample had missing values. Therefore the Missing Value Analysis (MVA) function in SPSS was used. Specifically, the expectation maximisation (EM) method was used on a per variable basis. All observed values for each of the variables were used in this prediction method to estimate the missing values. According to Tabachnick and Fidell (2001), MVA is seen as the soundest method for replacing any missing values when values are randomly distributed throughout the data set.

Exploratory data analyses involving visual inspection of stem-and-leaf and normality plots, and assumptions testing procedures were performed on all scale measures to ensure that there were no obvious or serious violations of the

assumptions underlying parametric procedures; specifically, normality, linearity, and homogeneity of variance. There were no serious violations of the assumptions noted for any of the variables and all were deemed suitable for parametric analysis. A correlation was also performed among all the variables' total scores. The results can be seen in Table 5.

Table 5

Correlation Matrix of all Phase 2 Variables

		1	2	3	4	5	6	7	8	9	10	11	12
1. IPFI Total	Pearson Correlation	-	.55	.24	.60	-.45	.73	.72	-.47	.71	-.42	.63	.26
	Sig. (2-tailed)		<.001	.021	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.044
2. LOT-R	Pearson Correlation		-	.08	.56	-.47	.59	.63	-.27	.62	-.07	.35	.43
	Sig. (2-tailed)			.434	<.001	<.001	<.001	<.001	.006	<.001	.493	<.001	.001
3. ACS – Reference to Others	Pearson Correlation			-	.37	.24	.28	.06	-.13	.06	.03	.31	-.30
	Sig. (2-tailed)				<.001	.010	.005	.531	.170	.545	.750	.001	.017
4. ACS – Solving the Problem	Pearson Correlation				-	-.27	.59	.54	-.32	.54	-.16	.56	.15
	Sig. (2-tailed)					.004	<.001	<.001	.001	<.001	.095	<.001	.239
5. ACS – Non-Productive Coping	Pearson Correlation					-	-.36	-.52	.32	-.47	.26	-.19	-.31
	Sig. (2-tailed)						<.001	<.001	.001	<.001	.006	.048	.015
6. SSI Total	Pearson Correlation						-	.62	-.41	.61	-.24	.53	.36
	Sig. (2-tailed)							<.001	<.001	<.001	.018	<.001	.004
7. SEI Total	Pearson Correlation							-	-.42	.90	-.31	.48	.35
	Sig. (2-tailed)								<.001	<.001	.001	<.001	.004
8. BBS	Pearson Correlation								-	-.42	.53	-.43	-.23
	Sig. (2-tailed)									<.001	<.001	<.001	.065
9. PHCSCS	Pearson Correlation									-	-.36	.49	.35
	Sig. (2-tailed)										<.001	<.001	.005
10. SSS-R (Reversed)	Pearson Correlation										-	-.35	-.01
	Sig. (2-tailed)											<.001	.939
11. SSRS	Pearson Correlation											-	.04
	Sig. (2-tailed)												.783
12. MSCEIT-YV-R	Pearson Correlation												-
	Sig. (2-tailed)												

Table 5 shows that there were numerous significant correlations amongst the variables. All significant correlations were in the expected direction. The strongest correlation was seen between the Coopersmith Self-Esteem Inventory and the Piers-Harris Children's Self-Concept Scale, which is logical considering that self-esteem and self-concept are quite similar variables. The second strongest correlation was between the Individual Protective Factors Index and the Social Support Index. Again, this makes sense theoretically, as social support is considered an important protective factor against a number of risks faced by adolescents, particularly those who are victims of school bullying (Rigby, 2000). The weakest correlation seen involved the reversed version of the School Safety Survey – Revised, and the Mayer-Salvey-Caruso Emotional Intelligence Test – Youth Version – Research Edition. This correlation was a negative one, indicating that as emotional intelligence scores rose, the level of bullying perpetration decreased.

The Individual Protective Factors Index comprised four subscales (called domains), and one total score. The domains include: Social Bonding, Personal Competence, Social Competence, and Attitude Concerning Alcohol and Drugs. Descriptive results for this measure are shown in Table 6.

The Adolescent Coping Scale comprised three subscales: Reference to Others, Solving the Problem, and Non-Productive Coping. Descriptive results for this measure are shown in Table 6.

The Coopersmith Self-Esteem Inventory comprised five subscales and a total score. The five subscales are: General Self-Esteem, Social Self-Esteem, Academic Self-Esteem, Family Self-Esteem, and a Lie scale. Descriptive results for this measure are shown in Table 6.

Bullying Behaviour was explored by combining the results from the Bully Behaviour Scale and the School Safety Survey – Revised (Reversed). Therefore, Bullying Behaviour technically comprised two subscales. The descriptive statistics for this variable can be seen in Table 6.

The Social Skills Rating System comprised four subscales as well as a total score. The four subscales included: Cooperation, Assertion, Self-Control, and Empathy. The descriptive results for this measure are shown in Table 6.

The Mayer-Salovey-Caruso Emotional Intelligence Test – Youth Version – Research Edition comprised four branch scores, two area scores, and an overall total score. The branches included: Perceiving Emotions, Facilitating Thought, Understanding Emotions, and Managing Emotions. The two areas were: Experiential and Strategic. The descriptive results for this measure can be found in Table 6.

Descriptive statistics for the Life Orientation Test – Revised, the Social Support Index, and the Piers-Harris Children's Self-Concept Scale are shown in Table 6.

Table 6

Descriptive Statistics for the IPFI, ACS, SEI, Bullying Behaviour, SSRS, MSCEIT-YV-R, LOT-R, SSI, and PHCSCS

	Group	*M*	*SD*
IPFI - Social Bonding Domain	Resilient Victim	55.80	7.17
	Non-Resilient Victim	53.37	6.27
	Healthy Non-Victim	61.19	4.53
	Poor-Health Non-victim	52.00	5.47
IPFI - Personal Competence Domain	Resilient Victim	80.15	8.71
	Non-Resilient Victim	75.03	7.84
	Healthy Non-Victim	89.15	6.30
	Poor-Health Non-victim	76.05	5.25
IPFI - Social Competence Domain	Resilient Victim	59.70	6.11
	Non-Resilient Victim	59.67	5.81
	Healthy Non-Victim	68.38	4.44
	Poor-Health Non-victim	59.00	4.77
IPFI - Attitude Concerning Alcohol and Drugs Domain	Resilient Victim	31.50	3.73
	Non-Resilient Victim	29.57	5.14
	Healthy Non-Victim	31.92	4.23
	Poor-Health Non-victim	29.68	4.87
IPFI Total	Resilient Victim	227.15	20.78
	Non-Resilient Victim	217.63	19.04
	Healthy Non-Victim	250.65	16.81
	Poor-Health Non-victim	216.74	15.49
ACS - Reference to Others	Resilient Victim	17.86	4.34
	Non-Resilient Victim	17.41	4.47
	Healthy Non-Victim	18.34	3.53
	Poor-Health Non-victim	15.35	3.87
ACS - Solving the Problem	Resilient Victim	20.14	3.07
	Non-Resilient Victim	18.47	2.88
	Healthy Non-Victim	21.17	2.71
	Poor-Health Non-victim	16.75	2.86
ACS - Non-Productive Coping	Resilient Victim	17.43	4.20
	Non-Resilient Victim	19.41	4.19
	Healthy Non-Victim	14.45	4.44
	Poor-Health Non-victim	18.25	4.52
SEI - General Self-Esteem	Resilient Victim	46.89	4.03
	Non-Resilient Victim	44.63	5.26
	Healthy Non-Victim	49.96	2.34
	Poor-Health Non-victim	43.95	4.41
SEI - Social Self-Esteem	Resilient Victim	13.42	1.98
	Non-Resilient Victim	13.67	2.00
	Healthy Non-Victim	15.58	0.76
	Poor-Health Non-victim	14.52	1.63

Table 6 continued.

	Group	*M*	*SD*
SEI - Academic Self-Esteem	Resilient Victim	13.42	1.77
	Non-Resilient Victim	13.30	2.17
	Healthy Non-Victim	14.88	1.18
	Poor-Health Non-victim	13.05	1.07
SEi - Family Self-Esteem	Resilient Victim	14.00	2.16
	Non-Resilient Victim	14.20	1.90
	Healthy Non-Victim	15.81	0.57
	Poor-Health Non-victim	13.43	1.80
SEI - Lie Subscale	Resilient Victim	10.63	1.07
	Non-Resilient Victim	10.40	1.83
	Healthy Non-Victim	11.54	1.63
	Poor-Health Non-victim	10.52	1.78
SEI Total	Resilient Victim	85.04	9.70
	Non-Resilient Victim	84.85	10.05
	Healthy Non-Victim	95.20	5.74
	Poor-Health Non-victim	84.36	7.37
Bully Behaviour Scale	Resilient Victim	10.03	3.55
	Non-Resilient Victim	12.03	3.54
	Healthy Non-Victim	7.39	2.20
	Poor-Health Non-victim	11.24	3.52
School Safety Survey – Revised (Reversed)	Resilient Victim	16.90	6.11
	Non-Resilient Victim	17.00	4.46
	Healthy Non-Victim	12.64	4.25
	Poor-Health Non-victim	14.90	4.77
SSRS - Cooperation Subscale	Resilient Victim	15.52	2.66
	Non-Resilient Victim	13.06	3.64
	Healthy Non-Victim	16.11	2.73
	Poor-Health Non-victim	13.33	2.18
SSRS - Assertion Subscale	Resilient Victim	13.19	3.71
	Non-Resilient Victim	12.77	3.50
	Healthy Non-Victim	15.46	2.83
	Poor-Health Non-victim	13.33	3.67
SSRS - Self-Control Subscale	Resilient Victim	12.43	3.56
	Non-Resilient Victim	11.61	3.53
	Healthy Non-Victim	13.86	3.61
	Poor-Health Non-victim	11.24	2.86
SSRS - Empathy Subscale	Resilient Victim	15.10	4.04
	Non-Resilient Victim	14.16	3.69
	Healthy Non-Victim	18.00	2.40
	Poor-Health Non-victim	14.90	2.68

Table 6 continued

	Group	*M*	*SD*
SSRS Total	Resilient Victim	56.24	11.17
	Non-Resilient Victim	51.61	10.93
	Healthy Non-Victim	63.43	8.73
	Poor-Health Non-victim	52.81	8.16
MSCEIT-YV-R - Perceiving Emotions Brach	Resilient Victim	54.36	18.80
	Non-Resilient Victim	58.75	11.24
	Healthy Non-Victim	62.31	6.53
	Poor-Health Non-victim	54.06	6.32
MSCEIT-YV-R - Facilitating Thought Branch	Resilient Victim	58.89	16.91
	Non-Resilient Victim	55.65	8.84
	Healthy Non-Victim	64.40	7.69
	Poor-Health Non-victim	56.94	12.86
MSCEIT-YV-R - Understanding Emotions Branch	Resilient Victim	55.25	16.83
	Non-Resilient Victim	56.18	12.55
	Healthy Non-Victim	58.50	9.08
	Poor-Health Non-victim	52.44	14.12
MSCEIT-YV-R - Managing Emotions Branch	Resilient Victim	33.46	9.64
	Non-Resilient Victim	33.63	8.00
	Healthy Non-Victim	37.17	7.84
	Poor-Health Non-victim	30.06	5.76
MSCEIT-YV-R - Experiential Area	Resilient Victim	113.25	34.74
	Non-Resilient Victim	114.40	16.59
	Healthy Non-Victim	126.71	11.87
	Poor-Health Non-victim	111.00	16.60
MSCEIT-YV-R - Strategic Area	Resilient Victim	88.71	24.86
	Non-Resilient Victim	89.80	19.28
	Healthy Non-Victim	95.67	14.29
	Poor-Health Non-victim	82.50	18.61
MSCEIT-YV-R Total	Resilient Victim	201.96	45.05
	Non-Resilient Victim	204.20	32.54
	Healthy Non-Victim	222.38	23.98
	Poor-Health Non-victim	193.50	32.86
LOT-R Total	Resilient Victim	22.33	3.76
	Non-Resilient Victim	20.03	3.18
	Healthy Non-Victim	23.14	2.79
	Poor-Health Non-victim	18.50	2.52
SSI Total	Resilient Victim	47.79	8.22
	Non-Resilient Victim	42.77	6.96
	Healthy Non-Victim	55.69	6.91
	Poor-Health Non-victim	42.10	6.88
PHCSCS Total	Resilient Victim	140.48	11.57
	Non-Resilient Victim	133.94	15.13
	Healthy Non-Victim	152.00	5.88
	Poor-Health Non-victim	135.95	11.36

Note: *N* = 25 (Resilient Victims); 33 (Non-Resilient Victims); 30 (Healthy Non-Victims); 23 (Poor-Health Non-Victims).

Table 6 shows that resilient victims were, on average, scoring higher than non-resilient victims on positive indicators (e.g., optimism and social support), and lower on negative indicators (e.g., non-productive coping and bullying perpetration). Table 6 shows that of the four SEI subscales, resilient victims only scored higher on General and Academic self-esteem, while non-resilient victims scored higher on Social and Family self-esteem (although not significantly higher). Similarly, resilient victims only scored higher than non-resilient victims on the Facilitating Thought Branch of the MSCEIT-YV-R; however, this again was not a significant difference between the two groups.

The psychosocial measures previously described were the dependent measures for the next analysis. Six of these measures (protective factors – IPFI, coping – ACS, self-esteem – SEI, bullying behaviour – BBS and SSS-R [Reversed], social skills – SSRS, and emotional intelligence – MSCEIT-YV-R) were analysed using multivariate procedures because they generated multiple subscale scores. Optimism (LOT-R), social support (SSI), and self-concept (PHCSCS) each generated a single total score and were analysed using univariate analyses.

Regardless of the number of dependent measures, the basic design for the rest of the analyses was a 2 x 2 between-subjects analysis of variance (ANOVA) with victimisation (high, low) and positive health (high, low) forming the two factors. Results of these analyses can be found in Table 7. In this table, when a multivariate test was used, the multivariate result is presented first, followed by the univariate results. Effect sizes, in the form of partial $\square^2$ squared, are also reported, along with the upper and lower bound 95% confidence intervals around the effect size.

Table 7
Summary of Factorial MANOVA and ANOVA Analyses for Study 1

Variable	Positive Health Main Effect				Victimisation Main Effect				Interaction			
	Λ	*F*	*p*	η^2 (95% CI)	Λ	*F*	*p*	η^2 (95% CI)	Λ	*F*	*p*	η^2 (95% CI)
Individual Protective Factors Index	.72	10.33	<.001	.28 (.13, .39)	.88	3.46	.011	.12 (.01, .21)	.84	5.06	.001	.16 (.03, .26)
Social Bonding Domain		30.51	<.001	.22 (.10, .35)		2.97	.088	.03 (<.01, .11)		11.35	.001	.10 (.02, .21)
Personal Competence Domain		38.86	<.001	.27 (.13, .39)		10.47	.002	.09 (.01, .20)		4.54	.035	.04 (<.01, .13)
Social Competence Domain		23.43	<.001	.18 (.07, .30)		10.78	.001	.09 (.01, .20)		16.71	<.001	.14 (.04, .26)
Attitude Concerning Alcohol and Other Drugs		6.91	.010	.06 (<.01, .16)		.064	.801	<.01 (<.01, .02)		0.22	.641	<.01 (<.01, .05)
Adolescent Coping Scale	.71	14.09	<.001	.29 (.14, .40)	.92	2.30	.034	.08 (<.01, .17)	.92	2.97	.035	.08 (<.01, .17)
Reference to Others		4.86	.030	.04 (<.01, .14)		0.94	.334	.01 (<.01, .07)		3.16	.079	.03 (<.01, .11)
Solving the Problem		33.82	<.001	.24 (.11, .36)		0.46	.501	<.01 (<.01, .06)		7.07	.009	.06 (<.01, .17)
Non-Productive Coping		11.34	.001	.10 (.02, .21)		7.78	.006	.07 (.01, .17)		0.71	.401	.01 (<.01, .07)
Coopersmith Self-Esteem Inventory	.77	8.00	<.001	.24 (.08, .34)	.85	4.60	.002	.15 (.02, .25)	.88	3.59	.009	.12 (.01, .22)
General Self-Esteem		27.49	<.001	.20 (.08, .33)		2.22	.139	.02 (<.01, .10)		4.32	.040	.04 (<.01, .13)
Social Self-Esteem		2.16	.145	.02 (<.01, .10)		17.74	<.001	.14 (.04, .26)		2.74	.101	.03 (<.01, .11)
Academic Self-Esteem		11.53	.001	.10 (.02, .21)		2.90	.092	.03 (<.01, .11)		5.65	.019	.05 (<.01, .15)
Family Self-Esteem		12.10	.001	.10 (.02, .22)		1.90	.171	.02 (<.01, .09)		13.54	<.001	.11 (.02, .23)
Bullying Behaviour	.82	11.62	<.001	.18 (.06, .30)	.87	80.4	.001	.13 (.03, .24)	.97	1.57	.212	.03 (<.01, .10)
Bully Behaviour Scale		23.18	<.001	.18 (.06, .30)		9.96	.002	.09 (.01, .20)		3.16	.078	.03 (<.01, .11)
School Safety Survey – Revised (Reversed)		2.73	.101	.03 (<.01, .11)		13.24	<.001	.11 (.02, .23)		0.82	.367	.01 (<.01, .07)

Note: Degrees of freedom - IPFI Total (4, 104); IPFI Subscales (1, 107); ACS Total (3, 105); ACS Subscales (1, 107); SEI Total (4, 104); SEI Subsclaes (1, 107); Bullying Behaviour Total (2, 106); BBS (1, 107); SSS-R (Reversed) (1, 107).

Table 7 continued

Variable	Positive Health Main Effect				Victimisation Main Effect				Interaction			
	Λ	*F*	*p*	η^2 (95% CI)	Λ	*F*	*p*	η^2 (95% CI)	Λ	*F*	*p*	η^2 (95% CI)
Social Skills Rating Scale	.80	6.51	<.001	.20 (<.01, .16)	.91	2.53	.045	.09 (<.01, .10)	.95	1.30	.27	.05 (<.01, .08)
Cooperation Subscale		25.03	<.001	.19 (.07, .31)		1.23	.269	.01 (<.01, .08)		0.11	.738	<.01 (<.01, .04)
Assertion Subscale		4.55	.035	.04 (<.01, .13)		5.58	.202	.05 (<.01, .15)		1.57	.213	.01 (<.01, .09)
Self-Control Subscale		7.67	.007	.07 (.01, .17)		0.94	.334	.01 (<.01, .07)		1.68	.198	.01 (<.01, .09)
Empathy Subscale		12.31	.001	.10 (.02, .22)		9.51	.003	.08 (.01, .19)		3.44	.066	.03 (<.01, .12)
Mayer-Salovey-Caruso Emotional Intelligence Test – Youth Version	.92	1.30	.283	.09 (<.01, .19)	.97	0.41	.803	.03 (<.01, .08)	.90	1.60	.186	.10 (<.01, .21)
Perceiving Emotions Branch		0.37	.547	.01 (<.01, .10)		0.26	.610	<.01 (<.01, .09)		3.95	.052	.06 (<.01, .21)
Facilitating Thought Branch		3.05	.086	.05 (<.01, .19)		1.23	.272	.02 (<.01, .13)		0.48	.494	.01 (<.01, .10)
Understanding Emotions Branch		0.55	.463	.01 (<.01, .11)		0.01	.944	<.01 (<.01, <.01)		1.01	.320	.02 (<.01, .13)
Managing Emotions Branch		2.49	.120	.04 (<.01, .17)		<.01	.975	<.01 ((.01, <.01)		2.73	.104	.04 (<.01, .18)
Experiential EI Area		1.66	.203	.03 (<.01, .15)		0.80	.377	.01 (<.01, .12)		2.22	.141	.04 (<.01, .16)
Strategic EI Area		1.36	.249	.02 (<.01, .14)		<.01	.973	<.01 (<.01, <.01)		1.89	.175	.03 (<.01, .15)
Life Orientation Test – Revised		37.55	<.001	.26 (.13, .38)		0.43	.514	<.01 (<.01, .06)		4.66	.033	.04 (<.01, .14)
Social Support Index		48.82	<.001	.31 (.17, .43)		8.39	.005	.07 (.01, .18)		11.51	.001	.10 (.02, .21)
Piers-Harris Children's Self-Concept Scale		24.07	<.001	.18 (.07, .31)		8.79	.004	.08 (.01, .18)		4.08	.046	.04 (<.01, .13)

Note: Degrees of freedom – SSRS Total (4, 104); Subscales (1, 107); MSCEIT-YV-R Total (4, 56); MSCEIT-YV-R Subscales (1, 59); LOT-R (1, 107); SSI (1, 107); PHCSCS (1, 107)

Table 7 shows that, of the six multivariate analyses performed, a significant interaction was seen three times. The strongest of these significant results was found for the Individual Protective Factors Index, which showed the largest effect size. The other two significant interactions – the Adolescent Coping Scale and the Coopersmith Self-Esteem Inventory – revealed effect sizes that are defined as being between medium and large (Cohen, 1988). Of the three univariate analyses performed on totals, all were seen to have significant interactions. Two of these demonstrated effect sizes defined as having a small to medium magnitude – the Life Orientation Test – Revised and the Piers-Harris Children's Self-Concept Scale – while the Social Support Index showed an effect size in the medium to large range. Out of all the interaction analyses, the IPFI was seen to show the strongest effect. The weakest interaction effects overall were seen for the Attitude Concerning Alcohol and Other Drugs subscale of the IPFI, and for the Cooperation subscale of the Social Skills Rating System. Both of these effects were <.01 in magnitude.

Five out of six multivariate victimisation main effects were found to be significant. The strongest of these was the Coopersmith Self-Esteem Inventory, with a large effect size. The remaining four signifcant multivariate victimisation main effects revealed effect sizes ranging from small to large in magnitude. Two of the three univariate victimisation main effects were found to be significant – the Social Support Index and the Piers-Harris Children's Self-Concept Scale – with effect sizes in the medium to large range. Overall, the strongest victimisation main effect was seen for the Coopersmith Self-Esteem Inventory. Seven of the victimisation analyses showed non-significant main effects that had effects sizes with a magnitude of <.01. Similar to the interaction analysis, the Attitude Concerning Alcohol and Other Drugs subscale of the IPFI was amongst those with the weakest effect size.

Of the six multivariate positive health main effects, again five were found to be significant; the same five as with the victimisation main effects. The strongest effect was seen for the Adolescent Coping Scale, which revealed a very large effect. The other four significant multivariate positive health main effects revealed large effects. All three of the univariate positive health main effects were found to be significant, with effect sizes well in the

large range. Out of all the positive health main effects, the Social Support Index showed the strongest effect. Of the eight non-significant positive health main effects, the weakest effect sizes were seen for two of the MSCEIT-YV-R subscales ('branches'), with effect sizes in the small range – Perceiving Emotions, Understanding Emotions.

A visual representation of the significant univariate interactions are presented below in Figure 2.

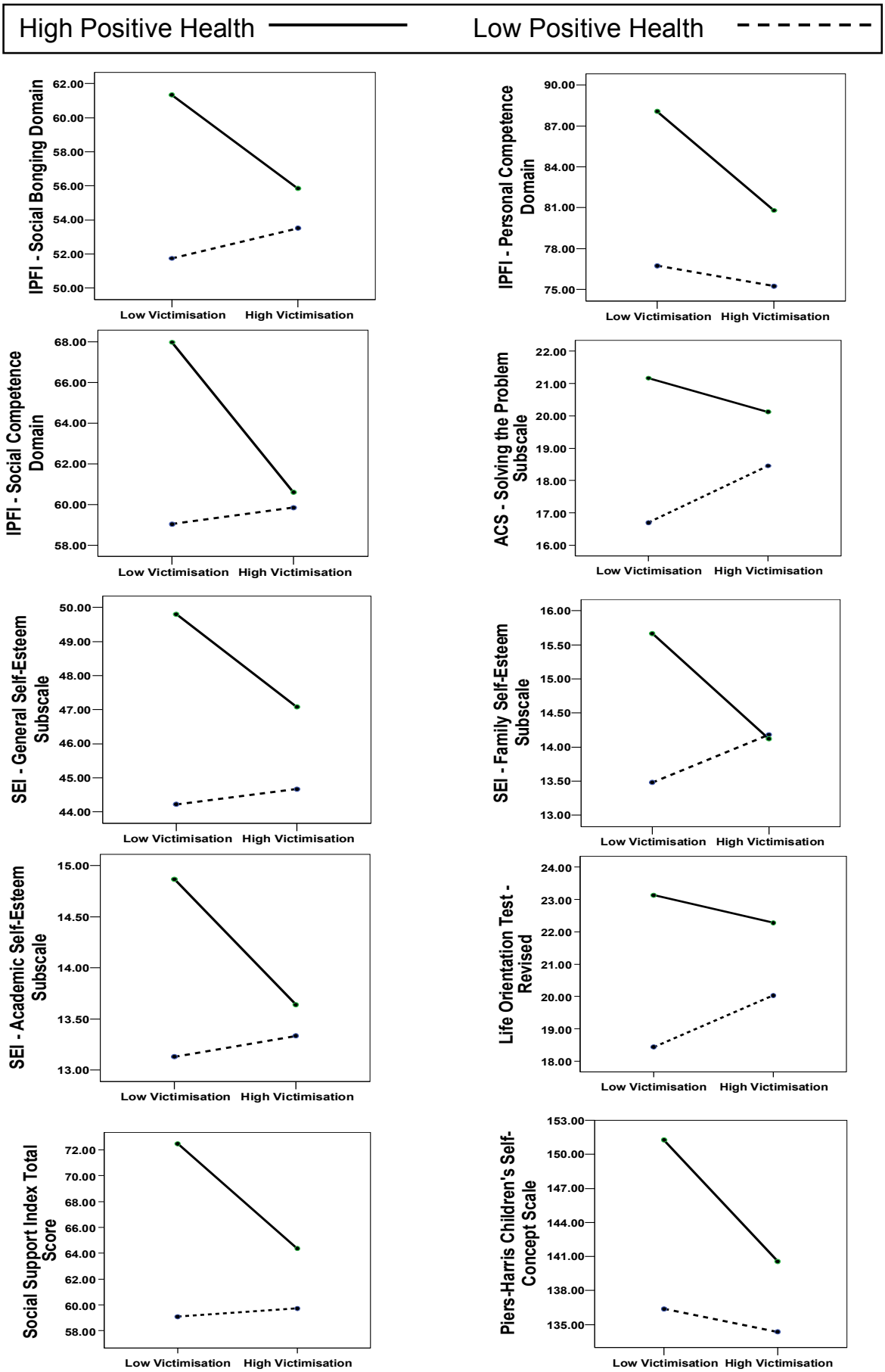


Figure 2. Significant Univariate Interactions

Figure 2 shows four main trends. First, the high positive health line, regardless of the victimisation level, is higher on all of the graphs. Each graph represents a positive variable, for example, self-esteem, optimism, and social support, indicating that high positive health generally relates to better functioning.

Second, in most cases, the low positive health line is relatively flat, indicating that if an individual has low positive health, their victimisation status does not have a great impact on their functioning; however, the high positive health line is quite steep in most of the graphs, indicating that victimisation status has a greater effect on individuals with high positive health.

Third, in every graph, the difference between the two high victimisation groups is smaller then the difference between the two low victimsation groups, indicating that the two victim groups are more similar than the two non-victim groups.

Last, in eight of the ten graphs, the order from highest to lowest score is: Healthy non-victims, resilient victims, non-resilient victims, followed by poor-health non-victims. In the other two graphs – Personal Competence subsclae of the IPFI and Piers-Harris Children's Self-Concept Scale – the non-resilient victims fall below the poor-health non-victims.

Overall, a range of significant results were found, both for interactions and simple main effects. The strongest result for the positive health main effect was found for the Social Support Index, $\eta^2 = 0.31$, while the strongest result for the victmisation main effect was found for overall score of the Coopermith Self-Esteem Inventory, $\eta^2 = 0.15$. The strongest interaction was seen for the overall score of the Individual Protective Factors Index, $\eta^2 = 0.16$. With regard to the weakest results, the weakest result for the positive health main effect was found for the Understanding Emotions Branch of the MSCEIT-YV-R, $\eta^2 < 0.01$, while the weakest result for the victimisation main effect was found for the Perceiving Emotions Branch of the MSCEIT-YV-R, $\eta^2 < 0.01$. The weakest interaction was seen for the Cooperation subscale of the Social Skills Rating Scale, $\eta^2 < 0.01$.

These interpretations were confirmed statistically by analysis of simple main effects (shown in Tables 8 and 9), where a series of single degree of freedom comparisons were conducted.

Table 8
Simple Main Effects for Victimisation

Variable	High				Low			
	Λ	*F*	*p*	*d* (95% CI)	Λ	*F*	*p*	*d* (95% CI)
Individual Protective Factors Index	.87	3.34	.013		.69	11.68	<.001	
Social Bonding		2.43	.122	0.41 (-.11, .94)		37.86	<.001	1.71 (1.06, 2.33)
Personal Competence		8.81	.004	0.79 (.24, 1.32)		33.50	<.001	1.60 (.97, 2.22)
Social Competence		0.30	.588	0.15 (-.38, .67)		38.17	<.001	1.71 (1.07, 2.34)
Attitude Concerning Alcohol and Other Drugs		2.44	.121	0.41 (-.11, .94)		4.59	.034	0.59 (.04, 1.15)
Adolescent Coping Scale	.93	2.47	.066		.71	14.08	<.001	
Reference to Others		0.10	.757	0.08 (-.44, .60)		7.59	.007	0.76 (.20, 1.32)
Solving the Problem		5.21	.024	0.61 (.07, 1.13)		34.38	<.001	1.63 (.99, 2.25)
Non-Productive Coping		3.33	.071	0.48 (-.05, 1.01)		8.50	.004	0.81 (.24, 1.37)
Coopersmith Self-Esteem Inventory	.90	2.86	.027		.75	8.48	<.001	
General Self-Esteem		5.24	.024	0.61 (.07, 1.14)		25.66	<.001	1.40 (.79, 2.01)
Social Self-Esteem		0.02	.893	0.04 (-.48, .56)		4.67	.033	0.60 (.04, 1.15)
Academic Self-Esteem		0.54	.462	0.19 (-.33, .71)		15.96	<.001	1.11 (.52, 1.69)
Family Self-Esteem		0.02	.884	0.04 (-.48, .56)		24.53	<.001	1.37 (.76, 1.97)
Bullying Behaviour	.96	2.51	.086		.84	10.34	<.001	
Bully Behaviour Scale		4.83	.030	0.58 (.05, 1.11)		20.80	<.001	1.26 (.66, 1.85)
School Safety Survey – Revised (Reversed)		0.29	.590	0.14 (-.38, .66)		3.14	.079	0.49 (-.06, 1.04)

Table 8 Continued

Variable	High Λ	High *F*	High *p*	High *d* (95% CI)	Low Λ	Low *F*	Low *p*	Low *d* (95% CI)
Social Skills Rating System	.90	3.25	.015		.85	4.51	.002	
Cooperation Subscale		11.40	.001	0.90 (.35, 1.44)		13.64	<.001	1.02 (.44, 1.60)
Assertion Subscale		0.41	.526	0.17 (-.35, .69)		5.48	.021	0.65 (.09, 1.20)
Self-Control Subscale		1.14	.289	0.28 (-.24, .80)		7.91	.006	0.78 (.21, 1.34)
Empathy Subscale		1.43	.234	0.32 (-.21, .84)		13.77	<.001	1.03 (.45, 1.60)
Mayer-Salovey-Caruso Emotional Intelligence Test – YV – R	.91	1.31	.277		.90	1.55	.202	
Perceiving Emotions Branch		1.15	.287	0.37 (-.32, 1.06)		2.86	.096	0.70 (-.14, 1.53)
Facilitating Thought Branch		0.68	.414	0.29 (-.40, .97)		2.53	.117	0.66 (-.18, 1.49)
Understanding Emotions Branch		0.04	.837	0.07 (-.61, .75)		1.29	.260	0.47 (-.36, 1.29)
Managing Emotions Branch		<.01	.955	0.01 (-.45, .46)		4.44	.039	0.88 (.02, 1.71)
Experiential EI Area		0.03	.875	0.06 (-.62, .74)		3.29	.075	0.75 (-.09, 1.59)
Strategic EI Area		0.03	.871	0.06 (-.62, .74)		2.74	.103	0.69 (-.15, 1.52)
Life Orientation Test – Revised		8.24	.005	0.76 (.22, 1.30)		32.89	<.001	1.59 (.96, 2.21)
Social Support Index		6.76	.011	0.69 (.15, 1.22)		51.60	<.001	1.99 (1.31, 2.65)
Piers-Harris Children's Self-Concept Scale		4.36	.039	0.55 (.02, 1.08)		22.97	<.001	1.33 (.72, 1.92)

Table 9
Simple Main Effects for Positive Health

Variable	High				Low			
	Λ	*F*	*p*	*d* (95% CI)	Λ	*F*	*p*	*d* (95% CI)
Individual Protective Factors Index	.80	6.70	<.001		.93	1.84	.128	
Social Bonding		13.00	<.001	0.97 (.41, 1.53)		1.35	.248	0.32 (-.22, .85)
Personal Competence		14.44	<.001	1.03 (.46, 1.60)		0.61	.437	0.21 (-.32, .75)
Social Competence		27.25	<.001	1.41 (.91, 2.00)		0.32	.571	0.15 (-.38, .69)
Attitude Concerning Alcohol and Other Drugs		0.26	.611	0.14 (-.39, .67)		0.02	.880	0.04 (-.49, .57)
Adolescent Coping Scale	.92	3.01	.033		.92	2.95	.036	
Reference to Others		0.33	.569	0.16 (-.38, .69)		3.76	.055	0.56 (-.02, 1.07)
Solving the Problem		1.97	.163	0.38 (-.16, .91)		5.54	.020	0.64 (.09, 1.18)
Non-Productive Coping		6.62	.011	0.70 (.15, 1.24)		1.89	.172	0.37 (-.17, .91)
Coopersmith Self-Esteem Inventory	.83	5.39	.001		.90	2.81	.029	
General Self-Esteem		6.38	.013	0.68 (.13, 1.23)		0.17	.678	0.11 (-.42, .64)
Social Self-Esteem		17.26	<.001	1.13 (.55, 1.69)		3.26	.074	0.49 (-.05, 1.03)
Academic Self-Esteem		8.34	.005	0.78 (.23, 1.33)		0.23	.635	0.13 (-.40, .66)
Family Self-Esteem		12.83	.001	0.97 (.40, 1.53)		2.64	.107	0.44 (-.10, .98)
Bullying Behaviour	.87	7.78	.001		.97	1.85	.162	
Bully Behaviour Scale		12.20	.001	0.95 (.38, 1.50)		0.95	.332	0.26 (-.27, .80)
School Safety Survey – Revised (Reversed)		10.36	.002	0.87 (.31, 1.42)		3.72	.056	0.52 (-.02, 1.06)

Table 9 Continued

Variable	High				Low			
	Λ	*F*	*p*	*d* (95% CI)	Λ	*F*	*p*	*d* (95% CI)
Social Skills Rating System	.88	3.44	.011		.99	0.41	.803	
Cooperation Subscale		1.05	.308	0.28 (-.26, .81)		0.30	.585	0.15 (-.39, .68)
Assertion Subscale		6.55	.012	0.69 (.14, 1.24)		0.61	.435	0.21 (-.32, .75)
Self-Control Subscale		2.58	.111	0.44 (-.10, .97)		0.05	.819	0.06 (-.47, .59)
Empathy Subscale		12.23	.001	0.95 (.38, 1.50)		0.75	.387	0.24 (-.30, .77)
Mayer-Salovey-Caruso Emotional Intelligence Test – YV – R	.92	1.18	.331		.94	0.89	.476	
Perceiving Emotions Branch		3.86	.054	0.68 (-.02, 1.37)		0.91	.344	0.40 (-.43, 1.22)
Facilitating Thought Branch		2.00	.163	0.49 (-.20, 1.17)		0.07	.786	0.11 (-.71, .93)
Understanding Emotions Branch		0.54	.466	0.25 (-.43, .93)		0.48	.489	0.29 (-.54, 1.11)
Managing Emotions Branch		1.75	.191	0.46 (-.23, 1.14)		1.10	.298	0.44 (-.39, 1.26)
Experiential EI Area		3.50	.066	0.65 (-.05, 1.33)		0.15	.698	0.16 (-.66, .98)
Strategic EI Area		1.11	.297	0.36 (-.32, 1.04)		0.83	.366	0.38 (-.45, 1.20)
Life Orientation Test – Revised		1.14	.30	0.29 (-.25, .82)		3.95	.049	0.54 (-.01, 1.08)
Social Support Index		19.84	<.001	1.21 (.62, 1.78)		0.12	.726	0.09 (-.44. .63)
Piers-Harris Children's Self-Concept Scale		12.47	.001	0.96 (.39, 1.51)		0.44	.506	0.18 (-.35, .71)

Given the importance of some specific focused analyses (e.g., the comparison between resilient and non-resilient victims), a full set of simple main effects tests were conducted, regardless of the significance of the interaction. This was done as a form of post-hoc testing using Bonferroni-adjusted significance levels. Even though the above tables report the full set of analyses, the main focus was on one particular set of results – resilient versus non-resilient victims. Of the six multivariate simple main effects, three were found to be significant, while all three of the univariate simple main effects were found to be significant. For each of the multivariate analyses, only one subscale from each measure revealed significant results. No significant results were seen for the MSCEIT-YV-R subscales or total score, indicating that the resilient and non-resilient victims did not differ significantly in their scores on this measure. For each of the significant results, an examination of the means revealed that the resilient victims are reporting significantly higher scores on each of these measures. The resilient victims scored higher on not only the positive variables, such as social support and self-esteem, but also on the less desirable variables, such as bully perpetration. The strongest simple main effects were seen for the Cooperation subscale of the Social Skills Rating System, $\eta^2 = 0.90$, the Personal Competence Domain of the IPFI, $\eta^2 = 0.79$, and the Life Orientation Test – Revised, $\eta^2 = 0.76$. By contrast, the weakest simple main effects results were seen for the Managing Emotions branch of the MSCEIT-YV-R, $\eta^2 = 0.01$, the Family and Social Self-Esteem subscales of the Coopersmith Self-Esteem Inventory, both with $\eta^2 = 0.04$.

Discussion

The two main research questions posed in this study were whether or not resilient victims could be classified and reliably identified, and also what psychosocial variables were related to, or could predict, resilient responses to bullying. The final question was not directly answered by the results of this study, but is theoretically important, given the overall goals of the research program: Are the predictor variables that were identified as important discriminators between resilient and non-resilient victims able to be taught to individuals? These questions will now be addressed in turn.

In answer to the first question, a clear distinction was seen between the four classified resilience groups on most of the variables. The groups were based on 1 *SD* from the mean splits for victimisation *z*-scores, and median splits for positive health *z*-scores. In each of these cases, there were clear cut-off points in the rank-ordered data, resulting in four resonably sized groups: Resilient Victims, Non-Resilient Victims, Healthy Non-Victims, and Poor-Health Non-Victims. Resilient victims comprised a total of 5.8% of the overall sample (50/867), although only 25 of these went on to complete Phase 2 of the study. Each of the variables or measures that made up the positive health construct have previously been shown to be typical reactions to experiencing victimsation by peers; for example, internalising and externalising behaviour problems, poor general health, and a perceived lack of wellness and life satisfaction. These will be reviewed in more depth below, where links to previous research are discussed.

In answer to the second main research question, there were a number of variables that clearly distinguished resilient and non-resilient victims. These variables demonstrated effect sizes in the medium to large range (Cohen, 1988). The only variable to have an effect size in the large range was the Cooperation subscale from the Social Skills Rating Scale. The variables that fell in the medium range in terms of effect sizes included (in order from highest to lowest effect size): the Personal Competence Domain of the Individual Protective Factors Index, the Life Orientation Test – Revised, the Social Support Index, Solving the Problem Coping from the Adolescent Coping Scale, the General Self-Esteem subscale of the Coopersmith Self-Esteem Inventory, the Bully Behaviour Scale, and the Piers-Harris Children's Self-Concept Scale. Two of the variables that fell within the small effect size range, but were nearing the medium range, were Non-Productive Coping of the Adolescent Coping Scale and the Social Bonding Domain of the Individual Protective Factors Index. In each of these cases, resilient victims scored higher on the desirable variables (e.g., Personal Competence), and lower on the negative variables (Non-Productive Coping) than non-resilient victims. Each of these discriminative variables have been previously linked to resilient outcomes. Again, this will be covered in more detail below, as links to previous research are discussed.

What was also of interest in the first study, was the teachability of the important discriminating variables. Previous research has shown that each of the variables indicated above have previously been taught to adolesccent samples. This important point will be expanded upon in the rationale section of Study 2.

With regard to how the results from Phase 1 relate to previous research, the following discussion will consider each measure in turn. The non-resilient victim group is the one of most salient in tersm of comparisons with previous research, as this is the group that is showing the typical, or expected, effects of being repeatedly victimised at school.

Phase 1

Perceived wellness. The Perceived Wellness Scale for Youth asks questions about six different dimensions of wellbeing: Physical (defined as a positive view or expectation of physical health); Social (defined as a perception of adequate support from peers and family, and a belief in being a provider of support for others); Emotional (defined as having a positive self-regard and security in one's identity); Intellectual (defined as being stimulated by intellectual activities to an optimal, energising level); Psychological (defined as the perception that positive outcomes will occur to life's circumstances); and Spiritual (defined as a perception of a positive meaning and purpose in life). It therefore covers an extensive range of areas related to a person's wellbeing. The results showed that not only did non-resilient victims score significantly lower than the resilient victim group, but they scored the lowest out of all the groups. This supports previous research, which has shown that victims of school bullying, compared with their non-victimised peers, tend to suffer serious consequences that effect their general wellbeing. Both Forero et al. (1999) and Rigby (2002) found that students who had suffered repeated victimisation at the hands of their peers reported greater levels of overall unhappiness in their lives.

Behaviour. One of the more specific typical effects of being victimised is an increase in behaviour problems, both internalising and externalising; measured in this study using the Child Behaviour Checklist. With regard to internalising behaviour problems, several research papers have shown an association between being a victim of school bullying and becoming

withdrawn and lonely (Boulton & Underwood, 1992; Graham & Juvonen, 1998a; Hawker & Boulton, 2000; Hodges et al., 1997; Kochenderfer-Ladd & Wardrop, 2001b; Olweus, 1993; Slee, 1995). In terms of externalising behaviours, Hodges, Boivin, Vitaro, and Bukowski (1999) found that victimised students, compared with students not involved in bullying, exhibited significantly more problem behaviours, such as lying, fighting, and acting out in general. The results of Phase 1 of this study showed that the non-resilient victim group again scored not only significantly worse than their resilient counterparts, but also scored significantly worse compared to the non-victimised groups.

General health. Another common finding seen in victims of bullying is a marked decrease in physical wellbeing. Numerous studies have focused specifically on the physical effects that bullying has on its victims. The results of Phase 1 showed that, again, the non-resilient victim group reported significantly lower general health (as measured by the GHQ-30) than all other groups, indicating that victimisation is strongly related to general health status. Interestingly, the non-resilient victims also scored significantly lower than the poor-health non-victims. This would suggest that being a victim of school bullying has a greater effect on general health than whatever factor(s) caused the poor-health non-victims to report such low positive health levels. This finding supports previous reseach that has shown that victimisation is strongly associated with a decrease in physical health (e.g., Dake et al., 2003; Rigby, 1999). The study by Dake et al. (2003) found that victims were significantly more likely to report having experienced psychosomatic symptoms (such as neck, shoulder, and lower back pain), while the study by Rigby (1999) actually argued for a causal link between being victimised and subsequent poor physical health.

Life satisfaction. It makes theoretical sense that if an individual is being repeatedly victimised by their peers at school, that their level of satisfaction with life would be lower than the average, non-victimised student. This has been supported by past research. Two studies conducted in 2002 showed that peer victimisation was significantly correlated with, and significantly contributed to, low levels of life satisfaction (Flouri & Buchanan, 2002; Verkuyten & Thijs, 2002). These results are further supported by the

present study's findings. As with perceived wellness, behaviour problems, and general health, the non-resilient victim group scored the lowest out of all the groups on the measure of general life satisfaction.

Perceived impact. The final specific effect that we would expect to see in victims of bullying is on the perceived impact of the bullying event. It would be typically expected that an event such as being victimised would have an impact on the individuals involved, particularly the victims. As previously described in the rationale section of this study, research conducted by Boney-McCoy and Finkelhor (1995) showed that bullying had a comparable traumatic impact on bullying victims to the effects that child sexual abuse has on victims. It was therefore argued in developing the rationale for the present study that experiencing repeated victimisation could be equated to a serious traumatic experience. The results from Phase 1 were somewhat counterintuitive in this respect. The non-resilient victims who in fact fared better in terms of the perceived impact of being bullied, however, the difference between the non-resilient victim group and the resilient victim group was not statistically significant. Even so, this result may just add weight to the argument that even though resilient victims perceive that bullying is having an impact on them, this is not reflected in their responses to the impact questionnaires (PWS-Y, CBCL, GHQ-30, and MSLSS). It may be a case of the resilient victims being more aware of the potential impact of being bullied, and they are therefore taking appropriate steps to ensure that it does not impact on their general functioning and wellbeing. As will be discussed in the next section, resilient victims possess a number of skills and attitudes that make them significantly different from their non-resilient counterparts. It may be that these skills allow the resilient victims to recognise the potential risks to wellbeing that victimisation presents, and also act as a buffer against those risks or effects.

Phase 2 Results

The second phase of the present study focused on identifying variables that discriminated between resilient and non-resilient victims of school bullying. Each of the variables that were discovered to vary between the two groups has been previously linked to resilience in general. Each of these variables has been shown to be associated with resilient reactions to a variety

of adverse circumstances and events in adolescents' lives. It therefore made theoretical sense that these same variables would be associated with positive, or resilient, outcomes for victims of bullying (given the traumatic nature of bullying). These variables included: social skills, social support, self-esteem and self-concept, optimism, and productive coping skills. Interestingly, it was also found that resilient victims were reporting significantly higher levels of bullying perpetration than their non-resilient counterparts. Each of these discriminating variables will now be examined in detail, and their links to previous research discussed. It is important to note at this point that all information gathered for this study has been via self-report. None of the information was confirmed by any other source, such as teachers, parents, or peers. What this indicates is that it is important that students *believe* that they have these skills, rather than whether or not they *actually* possess them.

Bullying perpetration. The first variable to be addressed is bullying perpetration. On the Bully Behaviour Scale, which is a brief measure of acts of bullying against others, the non-resilient victims reported significantly higher perpetration scores than the resilient victims. In fact, the non-resilient victims reported the highest level of bullying perpetration of all four groups. This measure was included because of the vast amount of research that indicates that victims of bullying are often found to be bullying other students (Salmivalli, 1999). It was theorised that victims may be suffering less of the negative effects of bullying simply because they are also bullying others, perhaps as some form of a coping mechanism. This theory was not supported, as it was the non-resilient victims who were bullying others, not the resilient victims. As past research has shown, there is a small subset of individuals who are both perpetrators and the victims of bullying behaviours (Salmivalli, 1999), but these results of the current study show that perhaps this subset of victims may be the ones who are not coping well with their bullying experiences. As no specific follow-up questions about motivation for bullying others were asked, it is still unknown as to why someone who is bullied themself, would go on to bully others. It may be a case of victims trying to show others that they are not weak. Yet, this research would suggest that it is more functional to not attempt to regain power through bullying others.

Social skills. It has long been recognised that the acquisition of social skills plays a critical role in healthy psychosocial development and functioning. As previously argued, having well-developed social skills has been directly linked to the development of resilience. Werner (1989) conducted some of the earliest research on resilience in children and found that one of the fundamental characteristics of children who showed resilience to adversity was their social skills. Research has shown that having social skills has been associated with a decreased likelihood of developing behaviour problems, of leaving the education system prematurely, and of developing emotional disturbances (Parker & ASher, 1990, cited in Heiman & Margalit, 1998). Conversely, other research has focused on the result of a *lack* of social skills. This research found that individuals with poor or non-existent social skills were more likely to suffer from depression, anxiety, or both of these mental health issues (Segrin, 1996, cited in Segrin, 2000; Spence et al., 1999). The current research found similar results. Resilient and non-resilient victims scored significantly differently on the Cooperation subscale of the Social Skills Rating System, with resilient victims scoring higher on this measure. They (resilient victims) also scored significantly higher on the Personal Competence Domain of the Individual Protective Factors Index. The Personal Competence Domain contains a self-control dimension, which is a facet of the overarching social skills description. This indicates that for victims to be resilient to the typical effects of being bullied, they need to believe that they are able to cooperate with their peers, and possess some level of self-control over their behaviours. Whether or not the resilient victims actually are cooperative and self-controlled appears to be irrelevant. As long as they believe they are, then they don't appear to bas negatively affected by the bullying that they experience.

Social support. The other socially relevant variable that discriminated between resilient and non-resilient victims was social support. More specifically, it was the level of *perceived* social support that differentiated between the two victim groups. Both perceived and actual social support have long been shown to act in a protective manner for individuals experiencing stressful events in their lives. Research by Anan and Barnett (1999) helped confirm the link between social support and resilient reactions to adverse life

circumstances. Their study showed that children who reported secure attachments to their families also scored high on social support. This relationship was seen to subsequently affect the likelihood of reporting behavioural problems in the children. More specific to the current research, Rigby (2000) conducted a study that assessed adolescents' general health, level of victimisation, level of support available to them, and the confidence they felt in receiving support when needed. It was found that students' mental health was significantly related to the extent to which they could rely upon significant others for support, particularly when problems arose at school (e.g., bullying). These past findings were supported by the current study's results. Resilient victims scored significantly higher on the Social Support Index than the non-resilient victims. This difference resulted in an effect size at the upper end of the medium range. Given the manner in which the information about social support was gathered (i.e., through self-report) it is impossible to determine whether the resilient victims perceived that they were receiving social support and actually were, or if they simply believed they were getting support. However, it appears that it should not matter either way, for as long as victims believe that they are receiving social support, or that it is available to them when needed, they should continue to thrive in the adverse circumstance of being bullied at school.

Self-esteem and self-concept. The next major area of difference between resilient and non-resilient victims was self-esteem or self-concept (which are being used as interchangeable terms in this study, despite the fact that there is considerable debate around the exact meaning of these terms). It has previously been stated that having a positive view of oneself, or high self-esteem does not actually have to be objectively accurate for the individual to experience benefits. Some have stated that self-esteem should be more about the perception of the self, rather than a realistic or accurate representation of the self (Baumeister et al., 2003). Based on this, it seemed appropriate in the present study to use self-report as a means of gathering information about self-esteem. The current results show that resilient victims reported significantly higher levels of self-esteem and concept than the non-resilient victims. The Personal Competence Domain from the Individual Protective Factors Index contains two dimensions labelled self-concept and self-efficacy.

The resilient victims scored second only to the healthy non-victims, while the non-resilient victims scored lowest overall. This was also the case for the results of the Piers-Harris Children's Self-Concept Scale; the resilient victims scored second highest overall, while the non-resilient victims fared worst overall. The resilient victims also scored significantly higher on the General Self-Esteem subscale of the Coopersmith Self-Esteem Inventory than the other groups.

Essentially, these three measures confirmed that having a healthy perception of oneself provides some protection from the typical negative effects of being repeatedly victimised by peers. This supports previous research on resilience, which states that high self-esteem not only allows individuals to suffer less, but to also recover more quickly from harmful or unpleasant events (Arndt & Goldenberg, 2002). Cicchetti, Rogosch, Lynch, and Holt (1993) found that self-esteem helped to predict the development of resilience in a group of maltreated children, while Garmezy (1993) found similar results when studying a group of people living in disadvantaged circumstances. This previous research has indicated that children with high self-esteem tend to exhibit resilience, which then allows the individual to demonstrate improved academic, social, and health outcomes (Wasonga et al., 2003). It makes intuitive sense that victims of bullying who have high self-esteem would cope better with the bullying than victims who have negative opinions of themselves. If an individual likes, accepts, and respects themself as a person, then the bullying may not have such serious negative consequences, particularly if the bullying is attempting to be quite personal.

Optimism. The next factor that appeared to help victims be less affected by bullying was optimism. Walsh (2003) has previously commented on the large amount of research that has verified that optimism, or optimistic thinking, has a positive effect on one's ability to deal with stress, recover from trauma, and overcome life's obstacles. Similar to the variables already discussed, optimism has also been shown to act as a buffer against the effects of major, as well as daily, stressors. A study by Peterson and De Avila (1995) used a sample of volunteer university students, and examined the relationship between an optimistic explanatory style, health beliefs and perceptions of health. The participants with high levels of optimism not only

saw themselves as being at less risk for developing health problems, but also believed that they were better able to prevent any health problems that they may have been at risk for, compared with those with low levels of optimism. The present study found similar results, as health was measured by self-report, and therefore, results were really an indication of how healthy participants *thought* they were, as opposed to actual levels of health. Once again, resilient victims scored significantly better in terms of their health as compared with their non-resilient counterparts. In fact, the resilient victims scores were remarkably similar to the healthy non-victims on the optimism measure – the healthy non-victims scored better than the resilient victims, but not significantly. A similar result was found for the Personal Competence Domain from the Individual Protective Factors Index, which has a dimension concerning positive outlook (optimism). Again, resilient victims scored significantly higher on this domain than the non-resilient victims. In fact, the non-resilient victims scored lowest on this domain compared with the other three groups. These results confirm that optimism contributes to both general resilience (as shown from previous research) and to resilience specific to the negative effects of peer victimisation. The definition of optimism itself explains why victims with high optimism might deal more effectively with bullying. The definition states that optimistic individuals attribute negative events to factors external to themselves, and as being temporary and specific (Peterson & Bossio, 1991). If an individual who is experiencing bullying can explain the bullying in these terms, then they may be less likely to blame themselves, less likely to believe the bullying will always occur, and more likely to see the bullying as being a specific event, rather than a global one. These attitudes would enable the victim to have the belief that the bullying will not last forever.

Interestingly, victims often play a major contributing role in the initiation and continuation of the bullying they are experiencing, yet it appears that believing that the cause lies outside of themselves actually has a positive effect on their wellbeing. In this case, even though the bullying will probably continue (because the victim does not see the need to change their own behaviour), it may not have such a profound affect on their wellbeing or functioning, which is, of course, a positive outcome. Perry (2002a) expressed this well when he said “the child who is capable of thinking that things will be

better – that the bad feelings and situation he now faces will improve – will be more resilient" (p. 25).

Coping. Related to this is the concept of coping well with bullying. It is not a skill that will necessarily help the bullying to end, but it allows the individual to deal with it effectively so that it does not affect their ability to function. Coping can be divided into two separate broad constructs – productive coping, and non-productive coping. The use of each type of coping will see different results. Productive coping should lead to positive outcomes and improvements in functioning, while non-productive coping will usually result in poor outcomes; that is, reduction in effective functioning and the development of problematic issues. For example, Griffith and Dubow (1993) found in their study of secondary school students and their coping strategies and health outcomes that productive, approach coping strategies were associated with lower levels of anxiety, while non-productive, avoidance strategies were associated with higher levels of anxiety being reported. More directly related to the present research, Kochenderfer-Ladd and Skinner (2002) examined the relationship between coping and resilience, with peer victimisation being the stressful or traumatic event that students needed to be resilient to. They found that even infrequent bullying would result in poor outcomes and maladjustment for victims if their coping was inadequate or ineffective. Such negative outcomes included being at increased risk for damage to self-esteem and suffering from depression (Neary & Joseph, 1994; Slee, 1995). Two of the three types of coping examined in the present research revealed significant results. The resilient and non-resilient victim groups differed on both the Solving the Problem approach to coping and the Non-Productive coping from the Adolescent Coping Scale. The resilient victim group, compared with the non-resilient victim group, scored higher on Solving the Problem (an effective coping strategy), and lower on Non-Productive coping (an ineffective coping strategy). Hence, not only were resilient victims using more productive coping strategies, they were also avoiding using poor coping strategies. It stands to reason that if resilient victims are using Solving the Problem coping that they are actually making a positive attempt to deal effectively with being bullied. This may mean that they are trying to deal with the actual bullying and trying to stop it, or it may simply mean that they are

using problem solving coping to deal with the effects the bullying is having (e.g., the negative emotions associated with being bullied). These results support the argument that developing effective coping skills is a means of facilitating resilience in young people, and that this should be one goal of prevention and intervention programs (Cunningham, 2002).

Limitations and Future Research Directions

Given the somewhat exploratory nature of the present study, there are several limitations that are worth noting. First, there is the usual concern associated with using self-report data. There is always the possibility when relying entirely on self-report that participants will answer in a socially desirable manner. Bullying by its very nature is a secretive activity, and often victims do not like to admit that they are being bullied; similarly, perpetrators may not wish to admit to their behaviour. A social desirability response bias is a general methodological concern with research of this type, but particularly with this age group, and with this research topic. However, numerous past studies have shown that self-report is a reliable and valid method of assessing bullying experience and related variables (e.g., Austin & Joseph, 1996; Whitney & Smith, 1993). Also, given that the participants provided an evenly spread distribution of responses, covering all levels of functioning, it is less likely that a significant proportion of participants were answering in a social desirable manner.

Another possible limitation is sampling bias. This could have occurred at two different levels: the school level, and the parent level. First, at the school level, it must be noted that more than 100 schools were approached and asked to participate in the current study. Of that 100, only 6 schools agreed to take part in the study. Schools were not asked their reasons for agreeing to participate and therefore it cannot be known why they were participating. It may have been that they were concerned about the level of bullying in their school, or it could have been that they believed that they did not have a serious bullying problem in their school. A related sampling bias may have occurred at the parent level. Each participant had to have signed parental or guardian consent before participating. There could possibly have been a systematic bias in the type of parent that allowed their child to participate in the research. Parents of victims may have been more likely to

allow their children to participate, resulting in an overestimation of the prevalence of bullying, or an overrepresentation of victims in the sample. Conversely, the reverse might have been true – parents of victims may not have wanted their child to participate because of concerns about how distressing their child might find the questionnaires. It may also have been that parents who believed that their child was not experiencing bullying may have been happy for their child to take part. Again, parents were not asked about their reasons for allowing their child to complete the questionnaires, so it cannot be said whether there was a sampling bias at the parent level; however, considering the size of the sample and the level of diversity in the sample, sampling bias may not have been a major issue. Further, the prevalence of victims in the sample was within the range reported by previous research, so there is no reason to believe that there was any systematic bias in the sample that would prevent comparisons being made among the four groups. In saying that, it may be advisable for future research to address these sampling issues. Gaining a school's permission to gather data can be incredibly difficult, and it is often a case of simply taking whichever schools agree to participate in the research, even if there is a suspicion as to why the schools are participating. If it can be ascertained as to the reasons for participation, then this can aid in the interpretation of the findings. Simply having the knowledge that a school participated because they believed that they did not have a problem with bullying amongst their pupils can provide valuable information to the researchers.

Another possible limitation of the current research is that of generalisability. The sample was purely Australian, limiting the generalisability across other nations. The sample was also taken from one geographical region in the north-east of Melbourne; however, the schools participating in this region were of varied socioeconomic status, with much diversity in the ethnic background of the participants. The sample also only consisted of year 7, 8, and 9 students, with a mean age of approximately 13 years. This means the results cannot be easily generalised to other age groups or year levels. In terms of stages of development, years 7, 8, and 9 are quite formative years, making them considerably different from both primary years and later

secondary school years. Future research could look at a wider age range and assess if these results vary according to age or year level.

Future research may also incorporate corroborating information from peers, parents and teachers as a means of verifying the information obtained through self-report. One of the more interesting findings to surface from the current research, and one that does not appear to have been explored in any great detail in the literature on bullying, was that victims often reported bullying other children. It seems counterintuitive that children who are deeply affected by being bullied would themselves bully other children. Previous research (Wade & Reece, 2004) showed that children who are both the victims and perpetrators of bullying scored the lowest on an empathy scale compared with other children involved in bullying, either as just victims, just bullies, or not involved at all. It may be that these bully-victims do not understand the effect that their actions are having on others, or perhaps they simply do not care; their view may be that they are getting bullied, so why not bully other people? This would be an interesting area to explore in more depth, and qualitative investigation might be the most appropriate method to gather information about why victims are also bullies. In-depth interviews with students who are both victims and bullies might uncover the motivations, perhaps even a common motivation, that drives them to bully despite also being victimised themselves.

It would also be useful to conduct longitudinal research in the area of resilience and bullying. Such research could ascertain whether resilient victims already possessed their resilient skills and attitudes prior to the bullying, or whether perhaps they developed their skills as a means of coping with, and lessening the effects of, bullying. Longitudinal research would also help establish whether non-resilient victims could be identified at a much earlier age, even before attending school, thus creating the possibility for early preventative interventions. Another suggestion for future research is for even more psychosocial variables to be examined as possible differentiators between resilient and non-resilient victim groups. Those assessed in the present research were a limited number of variables that had previously been associated with the general literature on resilience. A more comprehensive

study could, for example, explore how the home environment might also contribute to a student's ability to deal effectively with bullying at school.

Finally, as the following study will show, the information gathered in the present study will be used to develop a specific program to teach resilient skills to victims of school bullying. Those skills that differentiated between the resilient and non-resilient victims are ones that have been taught individually in the past, and could be grouped into one comprehensive program package that would teach victimised students the skills and attitudes necessary to circumvent the serious negative consequences of bullying.

Conclusion

The results of this study have provided valuable data on several aspects of both the bullying and resilience. First, it was shown that students could be divided into distinct groups based on their level of bullying victimisation, and their reactions to the victimisation. Some students were simply not experiencing bullying; however, these students still demonstrated variability in terms of their current functioning and wellbeing. It would appear that a number of students are experiencing other issues in their lives, other than bullying, that are adversely affecting their physical, emotional, and social wellbeing. Other non-victimised students, however, are not experiencing bullying and are functioning at an acceptable and expected level. The two groups who reported being victimised at an extreme level could also be divided into two groups – those showing the typical effects of being bullied, and those reacting to the bullying far more positively than expected. In fact, the latter group demonstrated levels of functioning and wellbeing comparable to the healthy group of non-victimised students.

The second phase of the current study identified those skills and attitudes that differed between the resilient and non-resilient victim groups. The results showed that ten variables significantly differed between the groups, and that these variables could be grouped into four major areas: social variables (including social skills and social support), self-esteem or self-concept, optimism, and coping. Resilient victims were shown to have better perceived social skills and social support than non-resilient victims. They also had healthier perceptions of themselves as people and reported more optimism and optimistic thinking styles. Finally, the resilient victims used

significantly more productive coping strategies, as well as significantly less non-productive coping strategies than non-resilient victims. These results, along with those from the first phase, have important implications with regard to the types of intervention programs developed for those students experiencing bullying at school.

CHAPTER 5

Study 2

Development and Implementation of a Group-based Intervention Program to Build Resilience in Victims of School Bullying

Rationale, Aims, and Research Questions

This study is a direct result of the findings in Study 1. Based on the results of Study 1, the top ten variables that differentiated between the resilient and non-resilient victims of bullying (in terms of their effect sizes) were selected to be included in the development of an intervention program for adolescent victims of school bullying. These variables were assessed by the following meaures: the Cooperation subscale of the Social Skills Rating System, the Personal Competence Domain of the Individual Protective Factors Index, the Life Orientation Test – Revised, the Social Support Index, Solving the Problem Coping from the Adolescent Coping Scale, the General Self-Esteem subscale of the Coopersmith Self-Esteem Inventory, the Bully Behaviour Scale, the Piers-Harris Children's Self-Concept Scale, Non-Productive Coping from the Adolescent Coping Range, and the Social Bonding Domain of the Individual Protective Factors Index. These ten variables were grouped into four major areas of focus for the intervention:

1. Social variables (including social skills and perceived social support)
2. Self-Esteem/Self-Concept
3. Optimism
4. Productive Coping

As well as being selected on the basis of discriminating between resilient and non-resilient victims, each of the four areas has previously been shown to be teachable to adolescent samples. This was an important criterion for selection. A variable that strongly discriminated between resilient and non-resilient victims, but that was not amenable to intervention, would not be included in the intervention program. The following discussion provides information about the successful implementation of programs designed to help build skills in the four areas of focus.

Social Variables

There has been much research that shows that children and adolescents who suffer from deficits in basic social skills are at much greater risk for a variety of social, emotional, and behavioural issues than those with social skills (e.g., Segrin, 2000; Spence et al., 1999). Based on this long-understood connection between social skills deficits and negative outcomes for children and adolescents, many programs have been designed and implemented with the aim of improving social skills in this cohort of individuals. Many of these programs have shown significant and lasting success (Gresham, Van, & Cook, 2006; Hogan, Linden, & Najarian, 2002; Spence, Donovan, & Brechman-Toussaint, 2000).

In a study conducted by Spence, Donovan, and Brechman-Toussaint (2000), a 12-session cognitive-behavioural intervention program was implemented with seven to 14-year olds with a primary diagnosis of social phobia. Participants were randomly assigned to one of three groups: an intervention group with parental involvement (PI), an intervention group without parental involvement (PNI), or a wait-list control (WLC) group. The participants were assessed at four time intervals: pre-intervention, post-intervention, six-month follow-up, and 12-month follow-up. The integrated cognitive-behavioural program involved teaching social skills, relaxation techniques, social problem-solving, positive self-instruction, cognitive challenging, and graded exposure to social situations (Spence et al., 2000). The main aim of the intervention was to reduce the number of participants who had a clinical diagnosis of social phobia; however, as the teaching of social skills was such a major part of the intervention program, it was also necessary to show that the children had in fact acquired social skills as a function of their participation in the program. The results demonstrated that the WLC group participants showed some improvement in their social skills in the intervention and follow-up period; however, it was the participants in both the intervention groups who showed significant improvements (based on parent ratings of social skills). Improvements were seen both in terms of statistical and clinical significance. At 12-month follow-up, the intervention groups had not only maintained their improved social skills, but some had gone on to further enhance their skills one year on, with 81% of participants in

the PI group, and 53% of participants in the PNI group no longer meeting the diagnostic criteria for social phobia.

In a more recent study by Gresham, Van, and Cook (2006), a group of participants aged six and seven years took part in a social skills training program because they were at risk of developing behavioural and emotional problems. Participants' level of social skills prior to the intervention was obtained through teacher completion of the Social Skills Rating System. Students were included in the study if they scored a rating of 0 on the frequency dimension (never uses the social skill in question) and a 1 or 2 on the importance dimension ("important" or "critical" respectively) on more than half of the total items. Each of the participants took part in a 20-week training program that was based on the techniques described in the Social Skills Intervention Guide (SSIG) (Elliott & Gresham, 1991). Social skills were taught via direct instruction, modelling, feedback/reinforcement (coaching), and behavioural rehearsal. At pre-intervention, participants' mean scores fell at the 7^{th} percentile in terms of social skills. Following intervention, their group average had increased to lie at the 50^{th} percentile. The authors described this as a "rather large improvement" (Gresham et al., 2006, p. 372).

It is interesting to note that during a thorough literature review of the information available on the efficacy of social skills training interventions, a number of the studies found had failed to measure participants' social skills at pre- and post-intervention. This was, in part, due to the fact that the studies were using social skills training as a means of preventing or decreasing other social, emotional, or behavioural problems, and therefore only measured these factors. The exceptions to this are the two aforementioned studies, which both assessed whether their social skills programs has actually increased the social skills of their participants.

The other social variable that discriminated between resilient and non-resilient victims was social support. Numerous studies have shown that perceived social support acts as both a buffer against the impact of potential risk factors (e.g., Asarnow et al., 1987), and also as a promoter of positive outcomes in adolescents, such as academic achievement (Wentzel, 1998). Given the large body of literature regarding the various benefits of social

support, it is surprising to discover that there is relatively little known about how well social support interventions actually work.

Hogan, Linden, and Najarian (2002) conducted a meta-analysis of the research on social support interventions. Their search found 100 studies that evaluated the efficacy of such interventions. The articles found covered a number of different presenting problems for which social support was expected to help reduce the negative impact. Some of these problems included cancer, loneliness, substance use or abuse, and issues related to parenting. A summary of the results revealed that 83 percent of the studies provided at least some benefit to the participants involved, compared with either no treatment at all, or active controls; however, the authors did express concern about interpreting these results without some caution, due to "the large variety of existing different treatment protocols and areas of application" (Hogan et al., 2002, p.381).

A more recent study, has shown some positive outcomes from a program designed to increase perceived social support in adolescent females (Steese et al., 2006). The program was called Girls' Circle and was developed in the US. The program has two main aims: to reduce risk factors in the lives of adolescent females, and to increase protective factors. It is a 10-week program designed for females aged 9 to 18 years, which "integrates relational theory, resiliency practices, and skills training in a specific format designed to increase positive connection, personal and collective strengths, and competence" (Steese et al., 2006, p. 56). In this particular study, 63 females, aged between 10 and 17 years were recruited and participated in the program. The participants were involved in nine separate Girls' Circle groups across both the US and Canada. The research design was a pre-test post-test design, where social support (amongst other variables) was measured before and immediately following the program. A paired-sample *t*-test showed a significant increase in participants' perceived social support levels.

Taken together these results demonstrate the potential for programs to positively impact on social skills and social support in adolescents. As previous research has demonstrated that these are key variables in resiliency, it is likely that non-resilient victims of bullying may benefit from acquiring skills

in these areas as well in other areas such as self-esteem, optimism, and coping.

Self-Esteem and Self-Concept

The second main area of focus for intervention was self-esteem and self-concept. As with both social skills and social support, self-esteem has been shown to both buffer the effects of negative events or life circumstances, and also promote positive outcomes in children and adolescents. Wasonga, Christman, and Kilmer (2003) found that children who exhibited high levels of self-esteem were able to improve their academic, social, and health outcomes. High self-esteem has also been linked to greater life satisfaction (Diener & Diener, 1995) and the use of effective coping strategies when faced with challenges (Lee, 2000).

An intervention study focussing on the implementation of a self-esteem program utilised a sample of 51 adolescents aged 13 to 16 years from a Catholic school in a low SES area in Queensland, Australia (Barrett, Webster, & Wallis, 1999). The students were selected because their teachers or the school counsellor had identified them as individuals experiencing low self-esteem. They were then randomly assigned to one of three groups: the Social Cognitive Training group (SCT), an Attention Placebo Comparison group (ACP), or the Waitlist Control group (WL). Students' self-esteem was assessed one week before and one week after the program was completed. Significant improvements were seen in both the SCT and the ACP groups' levels of self-esteem; however, greatest gains were seen in the SCT groups. The authors believed that their results provided further evidence that self-esteem can be improved in adolescents through group-based interventions.

A study was conducted in Spain in 2000 that aimed to improve the self-esteem of children with social and emotional difficulties (Cava & Musitu, 2000). The program implemented was called Galatea, and involved delivery of seven modules by classroom teachers. The programme ran for between three and five months, depending on the time teachers allocated to each module. The sample consisted of 537 students and 21 teachers across three state schools in the Valencia region of Spain. Students were aged between 10 and 16 years, and were from grades five to eight. Students were not randomly assigned to experimental or control groups as such, because the program

was delivered to the entire classroom as part of the curriculum. Therefore, a Non-Equivalent Comparison Group Design was employed. Students completed a 30-item self-esteem questionnaire both before the commencement of the program and upon completion of the program. The results showed that in all dimensions of the self-esteem questionnaire (social, academic, emotional, family, and physical), improvements were seen in the experimental group; however, these improvements were only significant in the dimensions of Family and Physical self-esteem. The authors suggested that these two dimensions are of particular relevance during adolescence, as this is a time of physical changes, as well as generally increased involvement in family decisions and processes (Cava & Musitu, 2000).

In 2006, a study was conducted to assess the effectiveness of a four-session program designed to improve self-esteem in school-aged children. Dalgas-Pelish (2006) implemented the program with a total of 98 participants, six groups of grade five and six students. The Coopersmith Self-Esteem Inventory was used to assess levels of self-esteem, both pre- and post-intervention. Two subscales of the instrument showed significant increases following the implementation of the intervention: General and Social self-esteem. It was also found that females had more significant changes than male participants. It was therefore concluded that the implemented self-esteem intervention was effective, particularly for use with female participants. Once again, the existing literature has demonstrated that self concept is amenable to change following direct intervention. Therefore, including this in a treatment program to enhance resiliency in bully victims is likely to be beneficial.

Optimism

The third main area of focus for the intervention was optimism. Optimism has been linked, in countless studies, to health and wellbeing outcomes (e.g., Ben-Zur & Debi, 2005; Lee, 2000; Peterson & De Avila, 1995). It has been long debated as to whether optimism can be improved through intervention. Carver, Spencer, and Scheier (1998) argue that “even biologically-based temperaments are malleable” (p. 51). Seligman also believed that optimism could be taught. Based on his theory of learned helplessness, Seligman theorised that if helplessness can be learned, then it could also be unlearned.

Based on this, he proposed that optimism could be taught and learned (Seligman, 1990). Carver and colleagues (1998) also suggested that cognitive-behavioural therapies would be the most appropriate method to teach optimism.

In an article by researchers in Perth, Western Australia, the short-term effectiveness of the Optimism and Life Skills Program was assessed (Quayle, Dziurawiec, Roberts, Kane, & Ebsworthy, 2001). The Optimism and Life Skills Program was an adapted version of the Penn Prevention Program (Jaycox, Reivich, Gillham, & Seligman, 1994). The modifications included making the program an 8-week intervention (compared with the usual 12), so it could fit into the school term, and also modifying the language to suit an adolescent Australian sample. The study was a randomised control trial, with a sample of 47 Year 7 females. The girls' levels of depression, loneliness, self-worth, and attribution style (optimism) were measured at pre-intervention, post-intervention, and at 6-month follow-up. Analysis of the optimism data showed that at both post-intervention and 6-month follow-up, the experimental group had improved on scores of optimism; however, these improvements were not statistically significant. The authors speculated that it may have been the small sample size, or the low session attendance that resulted in the non-significant findings.

A similar study was conducted recently within the medical field (Frothingham, 2006). Based on previous research in the area of optimism, the authors postulated that if cognitive behavioural interventions could be used to increase optimism in medically healthy populations, then the improvement in optimism may also lead to an improvement in depressive symptoms. The main aim of the study was to assess the effects of an optimism training program on patients' outcomes following a cardiac event. The optimism intervention was intended to improve participants' optimism by changing their perceptions of life expectancies and events, and subsequently increasing their psychological, emotional, and physical outcomes. Patients were randomly allocated into one of three groups: an optimism training group, a cardiac-related psychoeducation group, or a control group who received no treatment at all. Optimism and cardiac-related depression were measured at both pre- and post-intervention. Results showed that the optimism training group had

significant increases in their levels of optimism, and that there was a trend toward decreases in cardiac-related depression following the intervention. Follow-up data was later collected and the improvements in optimism levels were maintained at this later time.

Another recent publication (Reivich, Gillham, Chaplin, & Seligman, 2006) discussed the use of the Penn Resiliency Program a cognitive behavioural intervention designed for use with younger adolescents. The program aims to build students' problem solving skills, improve their capacity to deal with life's daily stressors, and teach them to bounce back and recover from major life events, such as parental divorce. The program is more generally designed to prevent anxiety and depression in this cohort of students by promoting resilience. The program was designed based on previous research that identified numerous factors, skills, and attitudes that bolster general resilience. These factors were then incorporated into the program as teachable abilities. One of these abilities was called realistic optimism, and was described as "thinking as optimistically as possible within the bounds of reality" (Reivich et al., 2006, p. 227). The initial investigations of the effectiveness of the program showed that it improved students' explanatory styles (optimism) and that these improvements were still seen at the 3-year follow up (Gillham & Reivich, 1999; Gillham, Reivich, Jaycox, & Seligman, 1995). These large effects have since been replicated in studies by Yu and Seligman (2002) who implemented the program with a group of Chinese school children. They found similar results to the original study at the 6-month follow-up mark. The authors concluded that interventions such as the Penn Resiliency Program (which includes an optimism component) should help children to respond in a resilient manner to any of life's challenges.

Productive Coping

The final major area of focus for the intervention was productive coping. Coping has been broadly defined as being either productive or effective coping (activities that attempt to change or resolve the situation, and aid in functioning) or non-productive or destructive coping (activities that do not help the situation, and tend to lead to a decrease in functioning) (Frydenberg, 2004). Productive coping has been repeatedly shown to be related to physical health (Aysan et al., 2001) and psychological health

(Griffith & Dubow, 1993), with productive coping being associated with healthy functioning and wellbeing in adolescents.

It has been found that in teaching young people coping skills, it is equally important to teach them about poor coping (i.e., what not to do) as it is to teach them about effective coping (i.e., what to do). Depression has been closely linked to the use of non-productive coping strategies, such as worrying, blaming oneself, and wishing for miracles (Cunningham & Walker, 1999).

One program that has been specifically designed to teach adolescents better coping techniques is the Australian program called Best of Coping (Frydenberg & Brandon, 2002). The program is described as a social and emotional program that utilises the principles of cognitive psychology, and is designed for use with 13 to 18 year olds. Coping is taught over 10 sessions that can be implemented as a complete program, or worked into an existing school curriculum. Sessions include a discussion of what coping means, and the different styles and strategies that adolescents use to cope. During the sessions students are taught what constitutes unhelpful coping and how to develop alternative, and more productive, coping strategies. A recent study by Huxley, Freeman, and Frydenberg (2004) aimed to evaluate the effectiveness of the Best of Coping program with a group of Year 9 students (N = 29) in Melbourne. Participating students were assessed using the 80-item Adolescent Coping Scale at pre- and post-intervention, and six months after the completion of the program. Analysis showed that overall there was an increase in the use of productive coping techniques and a decrease in the use of non-productive strategies. Specifically, the ‘focus on the positive’, and the ‘seek professional help’ strategies saw statistically significant increases. There were also non-significant trends in five of the other seven productive coping strategies, including: ‘seeking social support’, ‘solve the problem’, ‘invest in friends’, ‘seek relaxing diversions’, and ‘physical recreation.’ The non-productive coping strategies did not change significantly from pre- to post-intervention; however all but one of the strategies showed a decrease at post-intervention. Of the non-productive strategies, ‘self-blame’ and ‘worry’ decreased the most following participation in the program (Huxley et al., 2004).

Summary of Areas of Focus for Intervention

In summary, each of the variables that were found to differentiate significantly between the resilient and non-resilient victims in Study 1, have been successfully taught to adolescent samples. Based on the findings of Study 1, it was hypothesised that possessing these skills (at a level that makes them useful in dealing with the negative impact of bullying) should lead to a decrease in the negative consequences experienced by victims of bullying. Having these skills should lead to a decrease in behaviour problems (both internalising and externalising), a decrease in reported general health problems, and also a decrease in the perceived impact that bullying has on the individual. Improving these skills should also lead to an increase in positive outcomes, such as increased life satisfaction and perceived wellness. It is also hoped that a possible carry-on effect might include a decrease in the bullying being experienced. It could be that once victims are no longer being as severely affected by bullying, that their reaction to any bullying experiences may also decrease, which may in turn lead to a decrease in the amount of bullying they experience at the hands of their peers. However, even if actual bullying does not decrease, by providing victims with a new set of skills to cope and respond to life stressors then perhaps they will become less effected by the bullying.

Benefits of Therapeutic Interventions

Although all of the skills being focused on have been previously improved through intervention, it is also important to note that much research has shown that the simple act of participating in some form of therapy has its own benefits. Margison et al. (2000) stated that the therapeutic alliance has been shown to be the most reliable predictor of therapeutic gains and outcomes across a number of different types and models of therapy. The therapeutic alliance describes the bond created between the therapist and the client. Andrews (2000) claimed that the therapeutic alliance accounted for 80 percent of the variance in therapy outcomes, rather than the actual specific therapies themselves. Further, Hickling and Blanchard (2006) wrote that the "therapist's personal qualities should not be underestimated…they have always been a critical variable in therapeutic success" (p. 85).

Besides the rapport and alliance that is built between the therapist and the client, the function that therapy also provides is a restoration of hope. Craighead, Sheets, and Bjomsson (2005) reported that early changes in symptoms and functioning of clients during cognitive-behavioural therapy for depression (before the specific therapeutic techniques had even been taught) were due to the restored hope that clients experienced by participating in therapy. Together with hope, many other non-specific therapeutic factors have been shown to be powerful influences over outcomes. Such factors include therapist's engagement, empathy and rapport with the client, the attention and positive regard the client receives from the therapist, and the belief that the therapist shows in both the client and the therapy's effectiveness (Jensen, Weersing, Hoagwood, & Goldman, 2005). Therefore, careful monitoring of changes in participants' skill levels as each variable is introduced is needed to determine whether emotional and psychological gains are linked to the teaching of skills or the relationship with the therapist.

A group format for the intervention program was selected for a number of theoretical and practical reasons. Previous research has investigated the effectiveness of both individual and group interventions with adolescents. Group interventions have been shown to be either equally or more beneficial than individual interventions when working with adolescents (O'Leary et al., 2002). Due to the particular developmental stage that adolescents are passing through, the group format works particularly well. Adolescents are especially aware of, and sensitive to, the opinions of their peers and therefore peers can be powerful influences in the intervention setting (Larroque & Henderen, 1997). The group format also allows increased opportunity for prosocial peer interaction, feedback, and discussion (O'Leary et al., 2002). Learning can occur on an interpersonal level and peers can model appropriate behaviour for other group participants. Additionally, the group format can have a normalising effect for adolescents; they become aware that their problems, issues, or diagnosis are not as unusual or rare as they may have previously thought (Vickers, 2002).

The above information briefly describes the potential benefits of providing information in a group setting when working with adolescents. Research by O'Leary and colleagues (2002) showed that not only was group

intervention beneficial, but that it was actually the format of intervention that adolescents prefer. Their research focused primarily on intervention for adolescents who abused alcohol, but was also interested in which format of intervention adolescents would choose if given options. The voluntary adolescents were given a choice of receiving intervention through a group format, individually, or through a web-based service. 80 percent of the participants chose the group format option (O'Leary et al., 2002). Only 5 percent were interested in receiving their intervention individually, and 12 percent decided to use the web-based intervention.

On a more practical note, group intervention can be seen as being more cost- and time-effective. Individually delivered interventions can be costly to the participants and their families. Group interventions can decrease these costs; for example, through decreasing the number of sessions, and time needed in, suitable intervention facilities. They can also be more time-effective for the professionals delivering the interventions, allowing more adolescents to receive help that they may not have been able to receive otherwise (O'Leary et al., 2002)

Rationale, Aims and Research Questions

Deficits in any of the major areas of focus for intervention (i.e., social skills, social support, self-esteem, optimism, and effective coping) have previously been linked to poor psychological, emotional and physical health (see, for example, Cava & Musitu, 2000; Segrin, 2000). Conversely, the possession of such skills and attitudes have been shown to have buffering effects against the negative effects of stress and trauma (see, for example, Asarnow et al., 1987; Wasonga et al., 2003). These variables have also all been repeatedly shown to be amenable to change through intervention, particularly group intervention when working with adolescents. It is also important to recognise the potential therapeutic benefits that individuals can experience through simply participating in therapy. The therapeutic alliance built between the therapist and client has been shown to have considerable positive effects, even before active therapy has been undertaken. This information, taken with the results of Study 1, helps to justify the development and implementation of the intervention program.

There were two main aims of the present study. First, to develop a nine-week, cognitive-behavioural group intervention program to teach social skills, perceived social support, self-esteem, optimism, and effective coping skills to a group of young adolescents who were (a) experiencing high levels of bullying at school and (b) suffering a notable negative impact as a result. The second aim was to investigate the effectiveness of the group intervention program in teaching the set of resilience skills (social skills, perceived social support, self-esteem, optimism, and coping skills) identified as important discriminators between resilient and non-resilient victims in Study 1. The two specific research questions were: 1) Will participants show a statistically and clinically significant improvement in the above skills following a nine-week intervention and will these improvements be maintained 3 months after the conclusion of the program?; and 2) Will participants, following the intervention, now be able to be classified as "resilient victims?"

Method

Participants

A total of ten participants were involved in the intervention program. A breakdown of the participants' demographic details can be found in Table 10.

Table 10

Participant Demographic Information

Participant number	Gender	Age (1)	Age (2)	Year level	School	Living Situation	Siblings
1	Male	12	13	7	Co-educational; Non-denominational; Government	With both parents	None
2	Female	12	13	7	Co-educational; Non-denominational; Government	With both parents	None
3	Female	12	12	7	Co-educational; Non-denominational; Government	With both parents	Older sister
4	Male	13	13	7	Co-educational; Non-denominational; Government	With both parents	Older brother
5	Female	12	12	7	Co-educational; Non-denominational; Government	With both parents	Older sister
6	Female	14	14	8	Co-educational; Non-denominational; Government	With both parents	Older sister
7	Female	14	14	7	Co-educational; Non-denominational; Government	With both parents	None
8	Male	14	14	7	Co-educational; Jewish; Independent	With both parents	Older brother
9	Male	13	14	7	Co-educational; Non-denominational; Government	With maternal grandmother	None
10	Female	13	13	7	Co-educational; Non-denominational; Government	With mother	None

Note: Age (1) = Age at commencement of program; Age (2) = Age at completion of the program.

Materials and Measures

Questionnaire packages. The measures used in the present study were identical to those used in Study 1 (for detailed descriptions please refer to pages 66-68 and 77-84). The first questionnaire package, which acted as a screening package, included eight surveys: the Schools Safety Survey – Revised, the Child Behaviour Checklist – Youth Self-Report, the Perceived Wellness Survey for Youth, the Peer Victimisation Scale, the General Health Questionnaire – 30 Item, the Multidimensional Students' Life Satisfaction Scale, the Impact of Event Scale, and the Emotional Impact Scale. This first questionnaire package was used to assess victimisation levels and levels of positive health prior to the intervention, and the variables assessed by this package will be referred to hereafter as the *Impact Measures*.

The second questionnaire package (or *Intervention Questionnaire* package) included ten instruments: the Individual Protective Factors Index, the Life Orientation Test – Revised, the Adolescent Coping Scale – Short Form, the Social Support Index, the Coopersmith Self-Esteem Inventory, the Bully Behaviour Scale, the Piers-Harris Children's Self-Concept Scale, the School Safety Survey – Revised (reversed version), the Social Skills Rating System, and the Mayer-Salovey-Caruso Emotional Intelligence Test – Youth Version – Research Edition.

Daily diary. The other measure used in this study was a daily diary, which was designed specifically for the current research (see Appendix K). The purpose of the diary was to track on a daily basis the skills being taught in the program: social skills (via measuring social status), social support, self-esteem, optimism, and coping. The diary also measured participants' daily bullying experiences, perceptions of each day (i.e., whether they perceived their day to have been a good or bad one), and level of loneliness, across the nine weeks of intervention. This was done using a booklet containing seven copies of the two-page diary, which was given to the participants on a weekly basis, however, not all of the target variables could be measured directly, and were assessed in more subtle ways. Self-esteem was measured using a pictorial representation of their feelings about themselves in the form of a thermometer. Participants were asked to colour in the thermometer up to the level that they felt about themselves that day. Descriptives were placed on the

side of the picture, which included (from the bottom to the top of the thermometer): ‘terrible’, ‘below average’, ‘average’, ‘above average’, and ‘amazing’. It was hoped that as the program progressed, self-reported self-esteem would increase. The next section asked participants to indicate how their day had been. Their day could have been ‘horrible’, ‘really bad’, ‘not good’, ‘good’, ‘really good’, or ‘fantastic’. If their day was ‘good’ or higher, they were to write about what made their day a good one. If their day was ‘not good’ or below, then they needed to provide information about why their day had not gone well. This qualitative information helped provide an indication of the thought patterns of the participants, and how those thoughts affected their perception of external events. It was anticipated that as participants moved through the program, that they would perceive their days as being, on average, better. It was also hoped that after completing the program session on optimism, the participants’ qualitative responses would show more optimistic thinking patterns. In the following section, participants were asked to indicate, on a visual analogue scale, how lonely they had felt that day. Again, a range was provided, from ‘not lonely at all’ to ‘extremely lonely’. This was included as a measure of a possible carry-on effect of the intervention. It was expected that as other skills were developed (particularly social skills), that loneliness would decrease. The next two sections referred to any bullying the participant may have experienced during that particular day. The participants were first asked to indicate, by ticking either ‘yes’ or ‘no’, whether they had been bullied that day. If they answered yes, they then completed a section that required them to indicate the type of bullying that occurred. They could tick as many of the nine types of bullying as applied to that day. As described earlier, it was hoped that as a carry-on effect of the program, participants would experience less bullying on a daily basis.

The second side of the diary had six separate sections. The first section was used to assess coping strategies. Participants were asked to complete this section only if they had been bullied or if ‘something bad happened’ to them that day. There were eight coping strategies to choose from four productive and four non-productive. These coping techniques were taken directly from the Adolescent Coping Scale. Participants were permitted to choose up to three of these strategies. It was anticipated that as

participants learned about the two types of coping, that productive coping would increase, and non-productive coping would decrease. As a way of measuring participants' understanding of the two types of coping, the next section asked them to rate how good they thought their coping was on a seven-point scale, (1 – extremely bad, to 7 – extremely good). Again, it was hoped that as participants were taught more about coping, that they would become more insightful about how effective their coping strategies were. The next section of the diary was aimed at tracking participants' levels of perceived social support. This section simply listed eight different possible sources of social support (e.g., a friend at school, parents, a teacher, or another professional). Participants ticked all the sources of social support that they thought they had available to them if they wished to talk about, or get help with, their problems. An increase in the number of sources being ticked would indicate a greater perception of the social support available to them. The next two sections of the daily diary assessed participant optimism. Participants were asked about short- and long-term optimism. They were asked to indicate how they felt when thinking about how the next day would be, and how their future would be. They indicated this on a seven-point scale, ranging from 1 (awful) to 7 (great). It was expected that these scores would increase over the course of the program, especially after the session on optimism. The final section of the diary was used as a way of assessing participants' social skills. This was done in a more indirect way than some of the other variables being measured. Participants were asked to simply indicate how many people they had played with, or eaten with, at recess and lunch. It was believed that this would give some indication as to the social skills of the participant. If they were using the social skills that they were being taught, then it would seem likely that they would spend more time with more peers. So again, it was hoped that the number of peers with whom the participants interacted would increase throughout the program.

The use of daily diary measures has been promoted by previous research. Stone, Kessler, and Haythornthwaite (1991) found that daily diaries can offer improved overall accuracy over summary measures, tend to reduce recall biases or mistakes, and increase the accuracy of recall concerning the temporal sequence of events. Gil (2001) also used a daily diary to measure

children's pain levels and their use of coping strategies. The authors found that the diaries were able to reveal the benefits of their intervention program because they allowed for close examination of within-subjects effects. They asserted that analysis of only group data might have neglected to detect significant relationships and changes.

***Intervention program*.** The program used in this study was designed and constructed based on the findings of Study 1. It comprised a scripted instructor's manual and a student activity workbook. The program aimed to instil in the participants the cognitive, behavioural and social skills and attitudes that were shown to distinguish resilient and non-resilient victims in the previous study. Each of the sessions was a combination of already established intervention programs and new material developed specifically for the study. There were nine sessions in total. Eight of these were active intervention sessions, while the last session was used to allow participants to complete the post-intervention questionnaires, and to celebrate the completion of the intervention program. The sessions were run by the primary researcher and a co-facilitator. Each session comprised a portion of instruction and information delivery by the program facilitator, followed by the participants practicing the newly learned skill. Participants were then given descriptive feedback about how they had performed.

Each of the eight intervention sessions was 120 minutes in length and included a short break at the midway point to allow participants to stretch, chat, or visit the toilet. This was done to promote the highest level of concentration possible throughout the entire session. The number of sessions and the length of each of these sessions was determined based on recommendations for psychoeducational groups, and particularly group interventions with adolescents (Gladding, 1991; Schwartz & Rogers, 1994). Specifically, it has also been recommended that such sessions should be limited to less than three months, and for each session to run for one to two hours in length. Corey and Corey (1987) believe that when working with adolescents in a group setting, the session should be structured around central themes, but also have the flexibility to allow the adolescents to generate and participant in their own relevant discussions. In order to promote learning, group unity, and a relaxed and fun atmosphere, Jacobs, Harvill, and

Masson (1988) recommend the use of structured activities and applied exercises.

In the current research, to encourage participation and as a means of behaviour management within the groups, a points system was used. Participants earned points for answering questions, participating in discussions, respecting and encouraging their fellow group members, and for listening while others spoke. Points were placed on a large chart on the wall so that participants could track the points they had earned. At the conclusion of each session, the individual with the most points was allowed to choose a prize from a selection of toys, stationary, and so forth. Participants were also informed of the "Strengths" page in the front of their student workbooks. This page consisted of a list of all the skills being taught throughout the program. The facilitators would systematically check on participants' mastery of each of the skills and would place a tick in the box corresponding to each of the skills. Participants were informed that if, upon completion of the program, all their strengths boxes were ticked, then they would receive a prize.

The program in the current study was named the BRAVO program, which stood for Building Resilience and Victim's Optimism. Each of the sessions will now be discussed in more detail. The intervention manual and the student workbook (along with all other related materials) can be seen in Appendix L.

Session 1.

The first session comprised information and activities from a pre-existing program designed to teach social skills (Spence, 1995). The session contained the following sections:

- Introduction and rationale for the group
- Establishing of group rules
- Introduction of the points system
- The "getting to know you activity"
- Introduction to the "strengths page"
- Social skill: Tone of voice
- Practice: Tone of voice
- Social skill: Conversing and listening
- Practice: Conversing and listening

- Session summary and setting of homework

Session 2.

The second session continued to teach social skills from the same program used in session 1. The session contained the following sections:

- Review of the previous session and homework
- Introduction of the Social Detective concept
- Social skill: Sharing
- Practice: Sharing
- Social skill: Asking to join in
- Practice: Asking to join in
- Social skill: Don't be a bully
- Session summary and setting of homework

Session 3.

Session 3 continued to teach social skills from the same program used in sessions 1 and 2. The session contained the following sections:

- Review of the previous session and homework
- Social skill: Dealing with conflict – saying "no"
- Practice: Dealing with conflict – saying "no"
- Introduction of Thoughts, feelings, and behaviours
- Introduction of helpful and unhelpful thoughts
- Practice: Thoughts, feelings, and behaviours
- Introduction of relaxation techniques
- Practice: Relaxation
- Session summary and setting of homework

Session 4.

Session 4 incorporated information and activities from a pre-existing program designed to teach general resilience to adolescents, specifically, anger management techniques (Shocet, Holland, & Whitefield, 1997). This session also included having the participants complete quizzes relating to each of the previous three sessions. This was done as a means of reinforcing the already learnt material, and allowing participants to relearn information that they may have forgotten. The session contained the following sections:

- Review of previous session and homework
- Introduction of concept of anger management

- Introduction of anger management techniques
- Practice: Get away
- Practice: Let it out
- Review of all previous sessions
    - Session 1 quiz and review
    - Session 2 quiz and review
    - Session 3 quiz and review
- Session summary and setting of homework

Session 5.

The fifth session was designed to teach optimistic thinking. It contained information, materials and activities from two pre-existing programs (Barrett, Lowry-Webster, & Holmes, 2000; Stallard, 2002). The first program is designed to prevent anxiety and depression in adolescents by teaching emotional and cognitive skills that help improve optimism. The second program focuses on teaching the core concepts involved in cognitive behaviour therapy, and aims to increase optimistic thinking. The session contained the following sections:

- Review of the previous session and homework
- Introduction of the concept of optimism
- Practice: Fortunately, unfortunately
- Introduction to the concept of thinking errors
- Practice: “Your thinking errors survey”
- Introduction to concept of thought challenging
- Practice: “The quiz show”
- Session summary and setting of homework

Session 6.

The sixth session contained more information, materials and activities from the two programs used in session 5, and was aimed at boosting self-esteem in the participants. The session contained the following sections:

- Review of the previous session and homework
- Introduction of the concept of self-esteem
- Practice: “What is self-esteem?”
- Introduction of the concept of self-esteem assassins
- Practice: “Spot the self-esteem assassin”

- Practice: “Talking big”
- Practice: Identifying strengths
- Introduction of the concept of boosting other people’s self-esteem
- Session summary and setting of homework

Session 7.

Session 7 again continued using material from the two programs used in sessions 5 and 6. It also contained information from the program used in sessions 1, 2, and 3. This session aimed to increase participants’ awareness of the social support available to them. It also focused on developing further social skills, such as building and maintaining friendships. The session contained the following sections:

- Review of the previous session and homework
- Introduce the concept of social support
- Practice: “My support team”
- Practice: “Name your bandaids”
- Introduce the concept of building and maintaining friendships
- Practice: “Let’s focus on friends”
- Introduce the concept of giving invitations
- Practice: Giving invitations
- Introduce the concept of building trust
- Practice: Building trust
- Session summary and setting of homework

Session 8.

Session 8 continued once more with the information from the programs used in sessions 5, 6, and 7. The main treatment aim for this session was to increase effective coping used by the participants. This session also included having the participants complete quizzes relating to sessions 4, 5, 6, and 7. This was again done as a means of reinforcing the already learnt material, and allowing participants to relearn information that they may have forgotten. The session contained the following sections:

- Review of the previous session and homework
- Introduction to the concept of coping
- Practice: Coping
- Activity: Brainteasers

- Practice: Problem solving
- Review of previous sessions
    - Session 4 quiz and review
    - Session 5 quiz and review
    - Session 6 quiz and review
    - Session 7 quiz and review
- Session summary and setting of homework

Session 9.

The last session was primary designed for the gathering of post-intervention data from the participants. Previous experience of the researcher was that post-intervention data is notoriously difficult to collect. Therefore, time for this was provided as part of the final session. This last session was also used as a celebration of the completion of the program. The final session was structured as follows:

- Review of the previous session and homework
- Completion of post-intervention questionnaire packages
- Handing out of prizes for completed Strengths pages
- Handing out of completion certificates (see Appendix L for an example certificate)
- Celebration of completing the BRAVO program

Procedure

The current study was intended to be a randomised control trial, with three groups of participants: standard intervention, intervention plus parent involvement (in the form of tip sheets), and a wait-list control group. Participants were planned to have been randomly assigned to one of the three groups, with the intention to have groups of approximately 20 participants; however, after recruiting for over three months, only 21 potential participants were found, and of these, only ten continued to actually participate in the program, which necessitated a change to the design of the intervention program.

Recruitment. After the study was approved by the RMIT University Human Research Ethics Committee (see Appendix M), the recruitment procedure began. Participants were recruited via the following methods:

Advertisements in school newsletter.

All schools in the Northern, Western, and Eastern regions of Melbourne received emails requesting that information about the BRAVO program be included in their next newsletter. If no response was received within a week of the emails being sent, a follow-up phone call to the school was made. The advertisements included in schools newsletters, which were either paper or electronic format, stated that students in years 7 and 8, who were experiencing difficulties with bullying, were welcome to participate in the free nine week program. The primary researcher's contact information was also made available in the advertisements. Schools that had participated in Phases 1 and 2 of Study 1 were approached first and given the opportunity to offer the program to any students that they believed would benefit from the program.

Radio advertising

Interviews with the primary investigator regarding the study were conducted on two Melbourne metropolitan radio stations (RRR and 3AW). The first was an extended interview, giving details about how the program was based on the prior two phases of study, who would be suitable participants, what participants could expect from the program, and how to contact the primary investigator. The second interview was a brief live interview in which potential participants were informed as to how to contact the researcher if they were interested in taking part.

Print media

The media department of RMIT produced a general media release to be sent out to all relevant newspapers. Articles regarding the study appeared in one local newspaper in the north-eastern region of Melbourne. This article discussed the study in detail, and again provided contact information for any potential or interested participants. A second, smaller article appeared in a major Melbourne metropolitan newspaper, which simply informed readers that a free resilience building program was being offered and how to get in contact with the researcher.

Online advertising

Several website also advertised the study. RMIT placed a call for participants on the front page of the university website, as well as running a small story on the study on their Openline page (the online news magazine for RMIT

University). The researcher also placed information about the study on the Raising Children Network's forums (an Australian parenting website). There was a general forum, as well as ones that were specific to different regions of Melbourne. The information was placed both on the general forum and on the forums targeting parents in the north, north-west, east, and inner east regions of Melbourne. The Anxiety Disorders Association of Victoria also placed an advertisement for the study on their website. A website targeting youths also included information about the study on their site under the 'support and information' banner.

Interested individuals (the parents of victims of school bullying, school personnel, or other professionals) contacted the researcher directly via phone, or registered their interest via a website set up for the study. Once phone contact was made, the researcher informed the interested parties of what they could expect from the program and what would be required of them if they chose to participate. Potential participants also asked the researcher questions in order to establish if the program was going to be suitable for their child. The researcher also established at this point whether the program would be suitable for the potential participant.

***Screening*.** Once potential participants' details were obtained, they were sent the screening and intervention questionnaires for completion, with a reply-paid envelope supplied for easy return. The screening questionnaire was used to assess the levels of victimisation and positive health levels of potential participants. Potential participants would need to be able to be classified as non-resilient victims to be able to participate in the intervention program (as the program was specifically designed for use with non-resilient victims). Once the questionnaire packages were returned to the researcher, they were entered into an SPSS data file and scores were obtained for each of the individual surveys. The major inclusion criteria for participating in the study were as follows:

1. Currently completing either year 7 or year 8 of secondary school.
2. Reporting experiencing some form of bullying at school. The amount of bullying was not as important as the perceived impact that students reported; even if they were experiencing relatively little

bullying, but were reporting a large impact from the bullying, then they were expected to benefit from the program.

3. Positive health scores that would have placed them in the lower half of the sample from Study 1 – Phase 1 (where groups were based on median splits for positive health).
4. Able to attend one of the three weeknights offered, for the entire nine weeks of the program.

A total of 21 potential participants completed the screening and intervention questionnaires; however, only ten of these went on to complete the BRAVO program. Reasons for attrition will be explained in the results section.

***Assignment to groups*.** Students were to be initially assigned to one of three groups in a random fashion; however, due to the small number of participants recruited, students were assigned to groups based simply on what night of the week best suited them and their families (in the hope of increasing participation in the entire program). Groups were offered on Tuesday (Group 1), Wednesday (Group 2), or Friday (Group 3) afternoon, beginning at 5pm and finishing at 6:30pm. The Tuesday and Wednesday groups each had one male and two females, while the Friday group had two males and two females.

***Design*.** As previously stated, the study was originally designed as a randomised control trial, but had to be altered because of the limited number of participants. A lack of control group, whilst not ideal, is not uncommon with this type of research intervention. In circumstances where not enough participants are recruited to enable a fully randomised controlled trial, Foster, Watson, Meeks, and Young (2002) suggest using a single-group design. In such a design, participants act as their own controls, and change is not measured by group differences, but rather as individual change over time. While the limitations of this design are freely acknowledged (e.g., the inability to account for a range of threats to internal validity with the consequent limitations on making supportable causal attributions), there are circumstances, such as those surrounding the current trial, in which it presents the only viable option. Such an approach has been used with success across a range of settings (see, for example, Szigethy et al., 2004).

Participants underwent the following procedures:

Week 1: Collection of pre-intervention data (screening and intervention questionnaire packages).

Weeks 2 – 4: Sessions 1, 2, and 3 of the BRAVO program.

Weeks 5 – 6: Two weeks break to coincide with school holidays.

Weeks 7 – 12: Sessions 4, 5, 6, 7, 8, and 9 of the BRAVO program. Collection of post-intervention data in Session 9 (screening and intervention questionnaire packages).

Three month follow-up: Three months after the final BRAVO session, participants again completed the two questionnaire packages.

Implementation of program. The BRAVO program (as outlined in the Material and Measures section) was delivered by the primary researcher (a registered psychologist) and a co-facilitator. Three co-facilitators were recruited to help with the implementation of the program. Each intervention group (Groups 1, 2, and 3) had a different co-facilitator, all of whom were psychology students completing the first year of their Masters level training in clinical psychology. Training was provided for the co-facilitators prior to the commencement of the program. During training, co-facilitators were made familiar with all the materials involved in the BRAVO program, including their own Training Manual, and the materials required to complete each session (such as the points chart, the rules posters, and materials for the activities being completed). They were taught how to give positive reinforcement for appropriate behaviours displayed by the participants during the sessions. They were also taught how to give constructive feedback to the participants. Prior to each session, the researcher met with the co-facilitators to decide which sections of the session would be delivered by whom, and to answer any questions the co-facilitators might have.

Each session of the program consisted of a portion of verbal information, delivered by either the researcher or the co-facilitator, which gave an introduction to and explanation of the concept being taught. This was followed by a demonstration of the skills by the instructors. Participants were generally then asked to form pairs and practice the skills, before returning to the whole group and demonstrating their newly learnt skill. Participants were provided with feedback regarding their performance, including both positive

reinforcement for the parts completed correctly, and constructive suggestions on how to improve their performance of the skill next time. This process was repeated until each participant had mastered the current skill. This process of explanation, demonstration, modelling, and feedback has been shown to be an effective method for teaching new behaviours (Watson & Kramer, 1995).

Parents were also involved in the program by receiving letters and a series of tips sheets. The first letter was a welcome and introduction to the program. Information included how new skills are taught and how parents could reinforce their child when they used their new skills. It discussed how parents should ensure that they are modelling appropriate use of the targeted skills in front of their children. The letter also discussed the importance of the students completing their assigned homework tasks. It emphasised that the students would benefit most from the program if they practiced their skills in settings other than the BRAVO sessions. Finally, the letter contained the contact details of the primary researcher, as well as the supervisor of the project. A copy of this letter and the parent tip sheets can be seen in Appendix L. The tip sheets were given to parents weekly and related to the material being taught during each session. They contained a brief description of the skills and concepts being taught that particular week, a description of the assigned homework for the week, as well as a reminder for parents to encourage the use of their child's new skills. The tip sheet given in the final week of the program was a summary of information for parents. It reiterated that behaviours need to be reinforced in a consistent manner, as well as reminded parents of the major components taught during the program (e.g., the Social Detective method). It also encouraged parents to continue to practice the new skills with their child; using role plays was suggested as a way to practice skills prior to situations in which they may be needed. Finally, the sheet encouraged parents to expose their child to situations in which they could continue to practice their skills.

Treatment Integrity. In order to disseminate standardised treatment to all participants, a scripted treatment manual was utilised in this study. This method is advantageous as it allows for replication of the treatment procedures. A draft of the treatment manual was reviewed by a registered psychologist who had extensive experience in working with clinical adolescent

populations. The reviewer provided feedback about the content (assessing if it addressed the target variables), clarity, and accuracy of the information provided in the intervention manual. Her suggestions and feedback were used in modifying the manual to its final version. The primary researcher was also present for each session with each of the groups. In this way, if modifications were made during a session with the first group, the same modifications were made for all groups.

Qualitative data collection. In order to obtain the most comprehensive picture of bullying being experienced in schools, and the effect that bullying has on its victims, interviews were conducted with the ten participants of the BRAVO program. Participants were asked the same set of questions in an attempt to achieve some standardisation of administration; however, the interviews were designed to be more informal conversations with the participants in order to create a comfortable atmosphere that promoted open and honest discussion and the set questions were subtly weaved into the conversations. Interviews were conducted in September and October of 2006 mid-way through the implementation of the BRAVO program. Each interview lasted between 20 to 45 minutes in length. Answers were tape recorded and then transcribed by the researcher (copies of the transcribed interviews can be obtained from the researcher upon request). A qualitative analysis was performed on the interview transcripts, and will be discussed in the following section of this study.

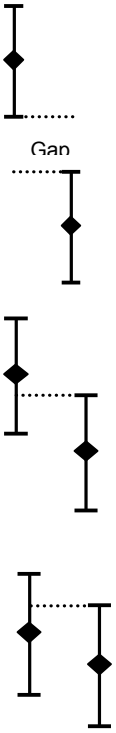
Data analysis. Any missing data from the two questionnaire packages (screening and intervention) underwent missing values analysis (Tabachnick & Fidell, 2001). Missing data were found to be randomly distributed and spread evenly across all variables. An examination of the data revealed that less than 5% of the sample had missing values. The Missing Value Analysis (MVA) function in SPSS was therefore used; specifically the expectation maximisation (EM) method was used on a per variable basis and all observed values for each of the variables were used in this prediction method to estimate the missing values.

Repeated measures ANOVAs, with time (pre, post, follow-up) as the within subjects factor, were conducted to examine both impact (screening) and target (intervention) variables. Trend or profile analysis (i.e., analysis of

orthogonal polynomials) was used as it was of most interest given the nature of the research questions. Because only three data points were being examined, only linear and quadratic trends could be examined. Pairwise comparisons were also conducted to assess change from: Pre-intervention to post-intervention, from post-intervention to follow-up, and from pre-intervention to follow-up.

Another set of graphs was also created for use with visual inspection. Each participant's individual scores at pre-intervention, post-intervention, and three-month follow-up were plotted alongside all other participant's scores, for each outcome variable. Standard error of measurement (SEm) bars were included in these graphs so that change could be assessed using inference by eye (Cumming & Finch, 2005). Two independent raters (neither of which was involved in the study) rated each graph according to criteria modified from those used by Hudson, Wilken, Jaurnig, and Raddler (1995) and Weiskop, Matthews, and Richdale (2001). The raters were one registered psychologist, experienced in visual inspection, and one probationary psychologist. The two independent raters evaluated each graph according to the following criteria:

1. Substantial change – data demonstrated that the intervention resulted in a significant increase or decrease in the variable (i.e., an increase towards the maximum possible score; decrease towards the minimum possible score). There is a gap between the Standard Error of Measurement bars was clear and evident.
2. Moderate change – data demonstrated that the intervention resulted in a clear increase to decrease in the variable; but the change was not sufficient to be considered substantial. There is minimal overlap between the Standard Error of Measurement bars was evident.
3. No change – data demonstrated that the intervention resulted in no change in the variable across time. Significant overlap between the Standard Error of Measurement bars was evident.



The raters were given these criteria, along with a set of instruction (see Appendix N) detailing how to complete the visual inspection task.

It could be easily determined whether an increase or decrease in the variable reflected an improvement or deterioration in that variable. Each graph

was presented on an A4 sheet of paper, which represented one variable, and showed each participant's pre-intervention, post-intervention, and follow-up data. The variable name that the graph represented was not shown on the graph, so as not to influence raters' opinions. Percentage of agreement was then calculated between the independent raters. If the raters disagreed on the rating for any of the graphs, then they conferred until an agreement could be reached; resulting in a 100% agreement rate.

Both visual analysis and statistical procedures were utilised in order to provide information about what was clinically significant compared with statistically significant. When comparing group data a certain amount of information about whether each individual is actually changing and by how much is lost.

The daily diary data was divided into the 11 variables being assessed by the diary (self-esteem, perception of the day, loneliness, number of types of bullying experienced, productive coping, non-productive coping, coping effectiveness, social support, optimism for the coming day, optimism for the future, and social status).

Because data plotted over a time series tend to be autocorrelated, the data points are considered to be 'serially dependent', which means that each data point is related to the points preceding and following it. In the case of the current research, knowing the group's mean score on a measure one day means that one can predict their score on the following day. Autocorrelation was tested for using the autoregression function in SPSS. If the time series associated with a variable was found not to possess significant autocorrelation, then no further steps were taken; however, if significant autocorrelation was found, then steps were taken to control for it. The SPSS procedure used to control for autocorrelation is the Autoregressive Integrated Moving Average (ARIMA) procedure. This procedure "permits the determination and partialling of autoregressive components in the data, thereby allowing determination of the extent to which there is an intervention effect over and above the autoregressive components in the model" (Borckardt & Nash, 2001, p.127) The ARIMA modelling procedure is the most highly recommended procedure for partialling out autocorrelation from time series data (Brossart, Parker, Olson, & Mahadevan, 2006). Although there are

limitations associated with the use of ARMIA modelling (e.g., too few data points in the time series, or a lack of expertise in using the ARIMA model can result in flawed outcomes), these limitations do not apply when ARIMA is not being used as 'model-finding', or to predict and forecast into the future (Brossart et al., 2006). This was the case for the present research; therefore, it was feasible to simply perform the preselected lag -1 ARIMA (1, 0, 0) model, referred to as a 'First-Order Autoregressive Model' (Glass, Willson, & Gottman, 1975). After carrying out the ARIMA (1, 0, 0) model, a new set of scores is saved in the active data file that are free of autocorrelation; these data are then graphed for further analysis. With short data series, this use of ARMIA modelling has shown promising results (Brossart et al., 2006).

The group's mean daily scores (after autocorrelation was removed) were then plotted on graphs, with the x-axis representing day of intervention (1 through 56), and the y-axis representing mean score on the particular variable. The day on which each skill was introduced and taught in the program was determined and plotted on the graph which also indicated where the pre-intervention data ended and the intervention data began.

Following the ARIMA model procedure, the split-middle trend technique (also referred to as the celeration line approach) was used in order to assess an intervention effect in the time series data (Zhan & Ottenbacher, 2001). This technique is used to show the linear trend in the data series, and to predict future performance on a given variable. To create a split-middle graph, the following steps are required:

1. The pre-intervention data is divided in half by drawing a solid vertical line to separate the first half of the data points from the second half. If the number of data points in the pre-intervention phase is odd, the vertical line should pass through the middle data point. Next, each half is divided in half again by drawing a dashed vertical line. Again, if the number of data points in each half is odd, the dashed line should pass through the middle data point.
2. T the median level of performance for each half of the pre-intervention data. The median is the data point that divides the data equally in each half and is computed from the data points

on the y-axis graph that demonstrate the subject's performance.

3. A straight line is drawn through the two median points and extend the trend line from the pre-intervention phase into the intervention phase as a dashed line (Zhan & Ottenbacher, 2001, pp. 5-6).

If no intervention effect has taken place, then the number of data points above and below the projected (celeration) line should be equal, that is, 50 percent of the data points should fall above the line, while 50 percent should fall below the line (i.e., the null hypothesis). Any deviation from this predicted pattern indicates that an intervention effect has occurred. The statistical significance of that intervention effect can then be examined by using a simple binomial test. The binomial test is a non-parametric analysis, which assesses the nature of the trend in the data series. If the ratio of data points above and below the celeration line significantly differs from a 50:50 ratio, then an intervention effect is said to have occurred.

Finally, the daily diary data was analysed using a *t*-test to assess whether the mean pre-intervention phase scores were significantly different to the mean intervention phase scores. The outcomes of the aforementioned analyses are presented in the results section of this chapter.

With regard to the interview transcripts, a new qualitative software analysis program, Nvivo 7, was used to assist in the data analysis. Specifically, Nvivo 7 was used to code the interviews, and to develop categories, or themes, from the codes. The main aim of the qualitative data analysis was to compare similarities and differences amongst the participants' answers to interview questions. The themes that emerged from the interviews were based around the set questions that were asked to each of the participants. These themes were then compared with the existing literature on bullying, and again, similarities and differences were noted here. The results of the qualitative data analysis are presented in the Results section of this study.

Results

Participant Attrition

Approximately 50 parents responded to the recruitment effort and contacted the researcher by phone, or via the BRAVO website. In order to be eligible to participate in the program, respondents needed to meet the inclusion criteria outlined previously. Of these, 21 were eligible to and agreed to participate. Of these 21 initial participants, 11 decided (for various reasons), not to participate in the BRAVO program. Reasons for non-completion are shown in Table 11.

Table 11

Reasons for Withdrawal From the Study

Reason for withdrawal from the study	Number of participants
Did not show up to any sessions	5
Could not arrive in time for the start of sessions	2
Too far to travel	1
Could not attend on any of the nights offered	1
Child changed their mind about attending	1
Parent changed their mind about their child attending	1
Total	11

Attendance

Of the ten participants who completed the program, none of them missed any sessions. On a small number of occasions, where participants could not attend their allocated night, they chose to attend on a different night, with a different group, so as not to miss out on any of the session information. When this was not possible, the participant who could not attend either their own or any of the other sessions received the session privately from the researcher. This only occurred on two occasions, with two different participants.

Repeated Measures ANOVA and Trend Analysis

To assess for changes over the three data collection times (pre-intervention, post-intervention, and 3-month follow-up), a series of one-way repeated-measures ANOVAs were conducted. Orthogonal polynomials (trend analysis) were used to identify significant effects across the intervention phases. Descriptive statistics can be seen in Table 12, and the results for the trend analyses can be seen in Table 13.

Table 12

Descriptive Statistics of Pre-Intervention, Post-Intervention, and Follow-Up for Impact and Intervention Measures

		Pre-Intervention		Post-Intervention		Follow-Up	
	Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*
Screening/ Impact Variables	SSS-R	25.00	5.85	20.00	8.59	12.70	2.67
	CBCL	97.90	22.06	59.00	34.78	48.70	18.95
	PWS-Y	125.70	23.73	150.80	25.49	162.00	19.87
	PVS	18.10	3.51	13.30	5.58	8.70	2.36
	GHQ-30	73.20	17.56	51.80	17.78	45.20	9.93
	MSLSS	146.00	34.26	176.40	33.19	198.20	26.03
	IES	377.33	69.75	216.56	61.34	168.00	26.68
Intervention Variables	IFPI	203.00	34.71	228.40	26.52	237.40	28.12
	LOT-R	16.00	5.74	25.40	2.50	25.30	1.70
	ACS – Reference to Others Coping	15.30	5.01	17.60	2.17	17.10	4.04
	ACS – Problem Solving Coping	15.00	5.64	19.70	2.06	19.80	3.26
	ACS – Non-Productive Coping	20.90	7.70	13.00	3.20	14.20	3.55
	SSI	54.80	13.68	65.50	8.21	66.80	9.41
	SEI	72.90	8.93	84.50	10.10	88.70	6.62
	BBS	8.20	2.90	6.50	0.93	6.30	0.68
	SSS-R (Reversed)	14.90	5.28	11.40	1.90	10.50	1.08
	PHCSCS	118.40	14.52	138.00	13.88	143.40	11.46
	SSRS	46.40	8.00	55.80	5.18	59.40	7.01

SSS-R – School Safety Survey – Revised
CBCL – Child Behaviour Checklist
PWS-Y Perceived Wellness Survey for Youth
PVS – Peer Victimisation Scale
GHQ-30 – General Health Questionnaire (30 item)
IES – Impact of Event Scale
MSLSS – Multidimensional Students' Life Satisfaction Scale
ACS – Adolescent Coping Scale
IPFI – Individual Protective Factors Index
SSI – Social Support Index
LOT-R – Life Orientation Test – Revised
BBS – Bully Behaviour Scale
SEI – Coopersmith Self-Esteem Inventory
SSRS – Social Skills Rating System
PHCSCS – Piers-Harris Children's Self-Concept Sclae

Table 13

Summary of Analysis of Orthogonal Polynomials for Impact and Intervention Measures

	Variable	Linear Trend			Quadratic Trend		
		F	*p*	η^2 (95% CI)	*F*	*p*	η^2 (95% CI)
Screening/ Impact Variables	SSS-R	30.39	<.001	.77 (.30, .87)	0.22	.650	.02 (.00, .33)
	CBCL	65.00	<.001	.88 (.55, .93)	2.70	.135	.23 (.00, .55)
	PWS-Y	27.13	.001	.75 (.27, .86)	0.66	.439	.07(.00, .40)
	PVS	41.77	<.001	.82 (.40, .90)	0.01	.950	<.01 (.00, .02)
	GHQ-30	24.79	.001	.73 (.24, .85)	2.20	.172	.20 (.00, .53)
	MSLSS	20.99	.001	.70 (.20, .83)	0.24	.633	.03 (.00, .33)
	IES	57.29	<.001	.88 (.51, .92)	6.07	.039	.43 (.00, .66)
Intervention Variables	IPFI	16.53	.003	.65 (.14, .80)	2.84	.126	.24 (.00, .56)
	LOT-R	37.77	<.001	.81 (.37, .89)	16.63	.003	.65 (.14, .80)
	ACS – Reference to Others Coping	1.95	.196	.18 (.00, .52)	1.24	.294	.12 (.00, .47)
	ACS – Problem Solving Coping	7.99	.020	.47 (.01, .70)	4.83	.056	.35 (.00, .63)
	ACS – Non-Productive Coping	9.95	.012	.53 (.04, .74)	17.14	.003	.66 (.14, .81)
	SSI	24.36	.001	.73 (.23, .85)	5.62	.042	.38 (.00, .65)
	SEI	50.65	<.001	.85 (.47, .91)	1.79	.214	.17 (.00, .51)
	BBS	5.01	.052	.36 (.00, .64)	2.06	.185	.19 (.00, .52)
	SSS-R (Reversed)	9.88	.012	.52 (.04, .73)	1.32	.281	.13 (.00, .47)
	PHCSCS	29.98	<.001	.77 (.30, .87)	2.58	.143	.22 (.00, .55)
	SSRS	13.90	.005	.61 (.10, .78)	2.80	.128	.24 (.00, .56)

Note: Degrees of Freedom for all analyses = 1, 8

Table 13 shows that all but two of the linear trends were found to be significant: Adolescent Coping Scale (Reference to Others Coping), and the Bully Behaviour Scale. Despite these non-significant findings, all effect sizes were found to be classified in the large range (according to the criteria set out in Cohen, 1988); however, given the relatively small sample size, the effect size confidence intervals are quite large. The Child Behaviour Checklist, Impact of Event Scale, and Coopersmith Self-Esteem Inventory showed the largest effect sizes, followed closely by the Peer Victimisation Scale, Life Orientation Test – Revised, School Safety Survey – Revised, and Piers-Harris Children's Self-Concept Scale. The weakest effect sizes, seen for a significant linear trend, were found for the Bully Behaviour Scale, and the Reference to Others subscale of the Adolescent Coping Scale.

With regard to the quadratic trend analyses, again, there were numerous effect sizes in the large range. The largest effects were seen for the Adolescent Coping Scale (Non-Productive Coping) and the Life Orientation Test – Revised. Non-productive coping was seen to decrease over the three data collection phases, while optimism was seen to rise over the same time period. The weakest quadratic trend was seen for the Peer Victimisation Scale, which had one of the strongest linear trend effects.

To clarify the pattern of change, a series of post-hoc pairwise comparisons between phase averages with Bonferroni corrections for multiple comparisons were conducted. The results are shown in Table 14.

Table 14

Summary of Pairwise Comparisons of Impact and Intervention Variables at each Intervention Phase

	Variable	Pre – Post Intervention *p*	Post-Intervention – Follow-up *p*	Pre-Intervention – Follow-up *p*
Screening/ Impact Variables	SSS-R	.150	.120	.001
	CBCL	.009	.615	<.001
	PWS-Y	.115	.467	.002
	PVS	.015	.145	<.001
	GHQ-30	.033	.445	.002
	MSLSS	.087	.102	.004
	IES	.003	.104	<.001
Intervention Variables	IPFI	.015	.420	.008
	LOT-R	.002	.998	.001
	ACS – Reference to Others Coping	.394	.978	.481
	ACS – Problem Solving Coping	.041	1.00	.058
	ACS – Non-Productive Coping	.003	.738	.035
	SSI	.013	.845	.002
	SEI	.027	.282	<.001
	BBS	.227	.945	.148
	SSS-R (Reversed)	.204	.598	.035
	PHCSCS	.040	.263	.001
	SSRS	.025	.306	.014

Table 14 shows that of the 18 variables assessed from pre-intervention to post-intervention, 12 showed significant mean differences across that time period. All of these were in the desired direction, with seven variables showing significant increases following intervention, and five showing significant decreases. The data regarding the post-intervention to follow-up period showed no significant results; an expected result in such research where a plateau is often seen following the cessation of intervention. Finally, of the 18 variables assessed from pre-intervention to 3-month follow-up, 15 were found to be significantly different. Again, these were all seen to be in the desired direction, with eight variables increasing and seven variables decreasing following intervention and a 3-month follow-up period.

Visual representations of the three data collection phases can be seen in Figures 3 and 4.

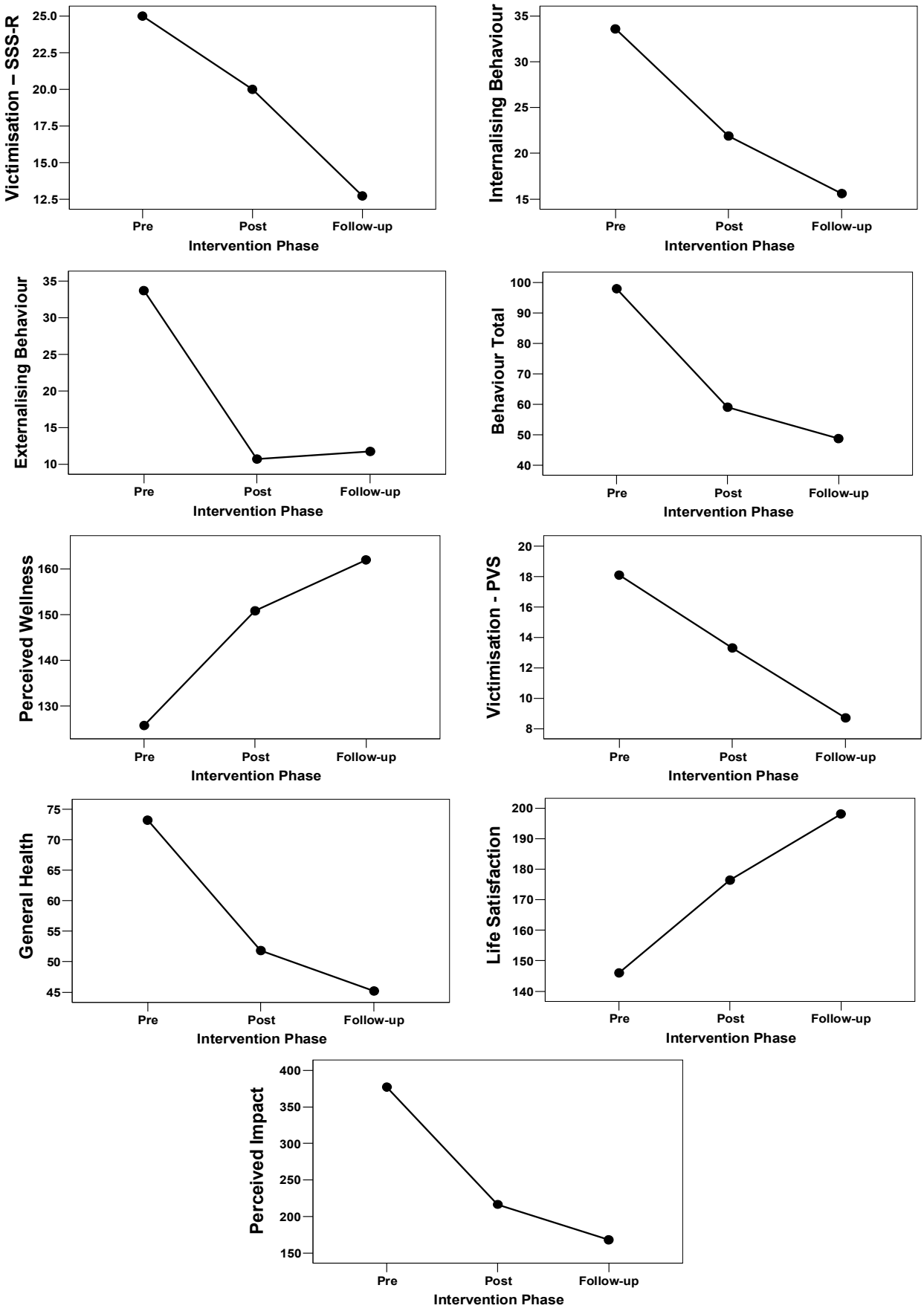


Figure 3. Impact Variables Across Phases

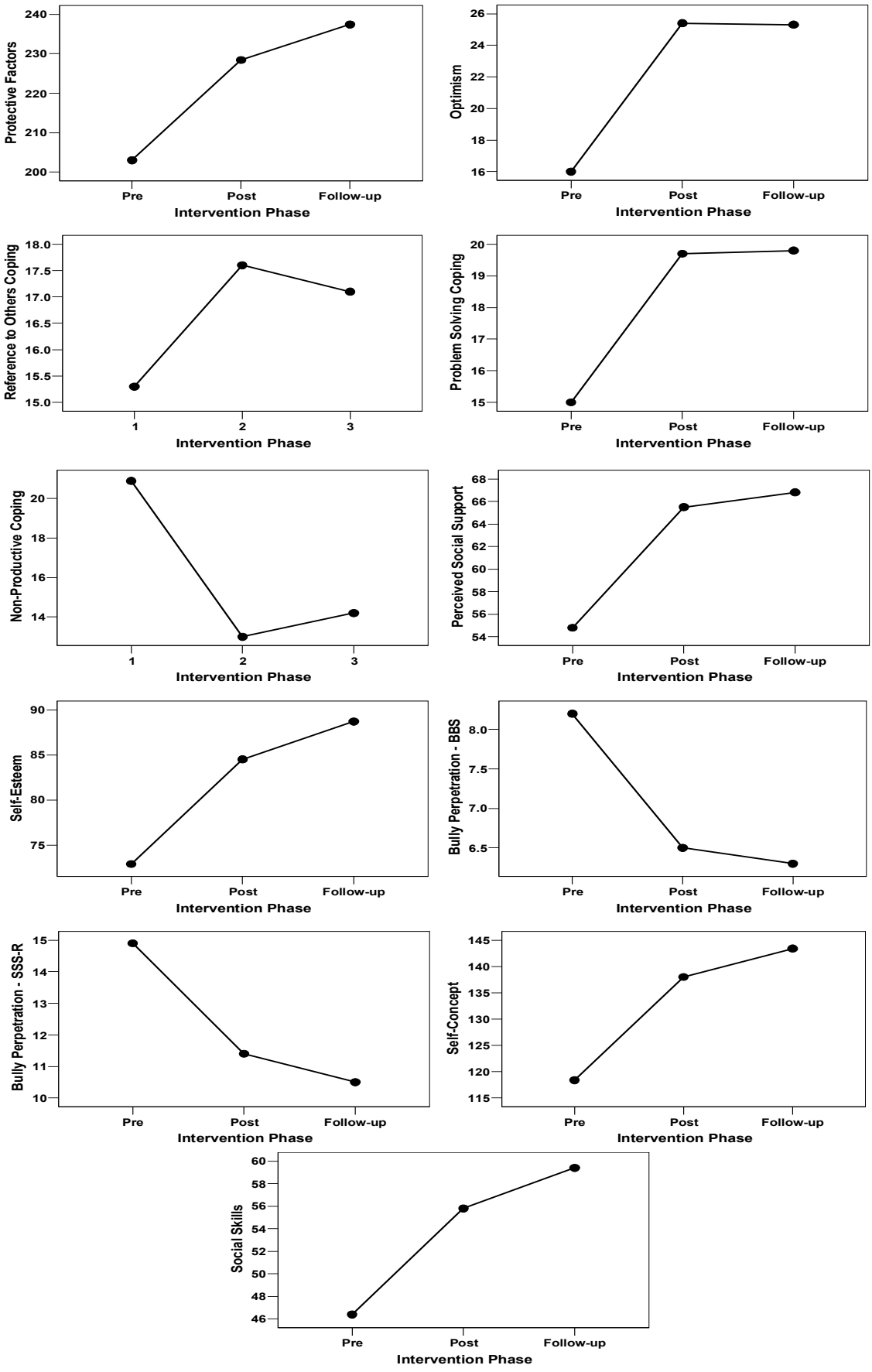


Figure 4. Intervention Variables Across Phases

Figures 3 and 4 are the visual representations of both the impact variables, and the intervention variables. It can be seen in the figures that improvements occurred in all the variables that were targeted for increases, and that decreases were seen in those variables that were intended to decreasing following intervention. With regard to the changes from post-intervention to follow-up, Figure 3 shows that for one of the variables, Externalising Behaviour from the Child Behaviour Checklist, there was a very slight increase in the undesirable behaviour at 3-month follow-up. All other impact variables showed continued progress in the desired directions.

Again, with regard to the progress made from the end of intervention to the 3-month follow-up point, Figure 4 shows that there were three main patterns: Continued movement in the desired direction, a plateau effect following post-intervention, or a regression following the end of intervention. Data from the following measures showed continuing gains following the end of intervention: Individual Protective Factors Index, Social Support Index, Coopersmith Self-Esteem Inventory, Bully Behaviour Scale, School Safety Survey – Revised, Piers-Harris Children's Self-Concept Scale, and the Social Skills Rating System. The measures that resulting in a plateau effect were the Life Orientation Test – Revised, and the Problem Solving Coping subscale of the Adolescent Coping Scale. The only two measures that showed undesirable regressions from post-intervention to 3-month follow-up were the remaining two subscales from the Adolescent Coping Scale. Reference to Others Coping showed a slight decrease, while Non-Productive Coping showed a slight increase.

Summary of repeated measures ANOVA and trend analysis. Numerous significant results were seen in the preceding analyses. When looking at linear trends, 16 of the 18 variables showed significant trends. The largest effects were seen for the Child Behaviour Checklist, the Impact of Event Scale and the Coopersmith Self-Esteem Inventory, while the smallest effects were seen for the Bully Behaviour Scale and the Reference to Others subscale of the Adolescent Coping Scale. With regard to the quadratic trends, only two variables returned significant results with large effects sizes – the Life Orientation Test – Revised, and the Non-Productive Coping subscale of the

Adolescent Coping Scale, and the weakest quadratic trend was seen for the Peer Victimisation Scale.

When analysing the pairwise comparisons between each of the data collection phases, many significant results were found. With regard to the comparison of pre-intervention to post-intervention data, 12 of the 18 variables revealed significant changes in the desired direction. The comparison of post-intervention and 3-month follow-up data revealed no significant changes, indicting maintenance in the variables. However, when comparing the pre-intervention to the follow-up data, 15 of the 18 variables showed changes in the desired direction.

Visual Inspection of Individual Change in Outcome Variables

Visual inspection was used to assess changes in individual participants' data across the three phases of intervention, on each of the impact and intervention variables. Two independent raters assessed the graphed data for changes between pre-intervention and post-intervention, post-intervention and follow-up, and between pre-intervention and follow-up. Raters were asked to compare a total of 540 data points for changes. For all of the graphs the raters initially agreed on 526 of the comparisons, which resulted in a 97.8 percent agreement rate. The raters then conferred until 100 percent agreement was reached on all of the graphs. The following graphs (Figures 5 through 22) represent the individual participants' scores each of the impact and intervention variables at pre-intervention, post-intervention and follow-up. The y-axis scale on each of the graphs represents the lowest possible score to the highest possible score for each of the measures. The figures will now be presented and discussed in turn.

P1 = Participant 1
P2 = Participant 2

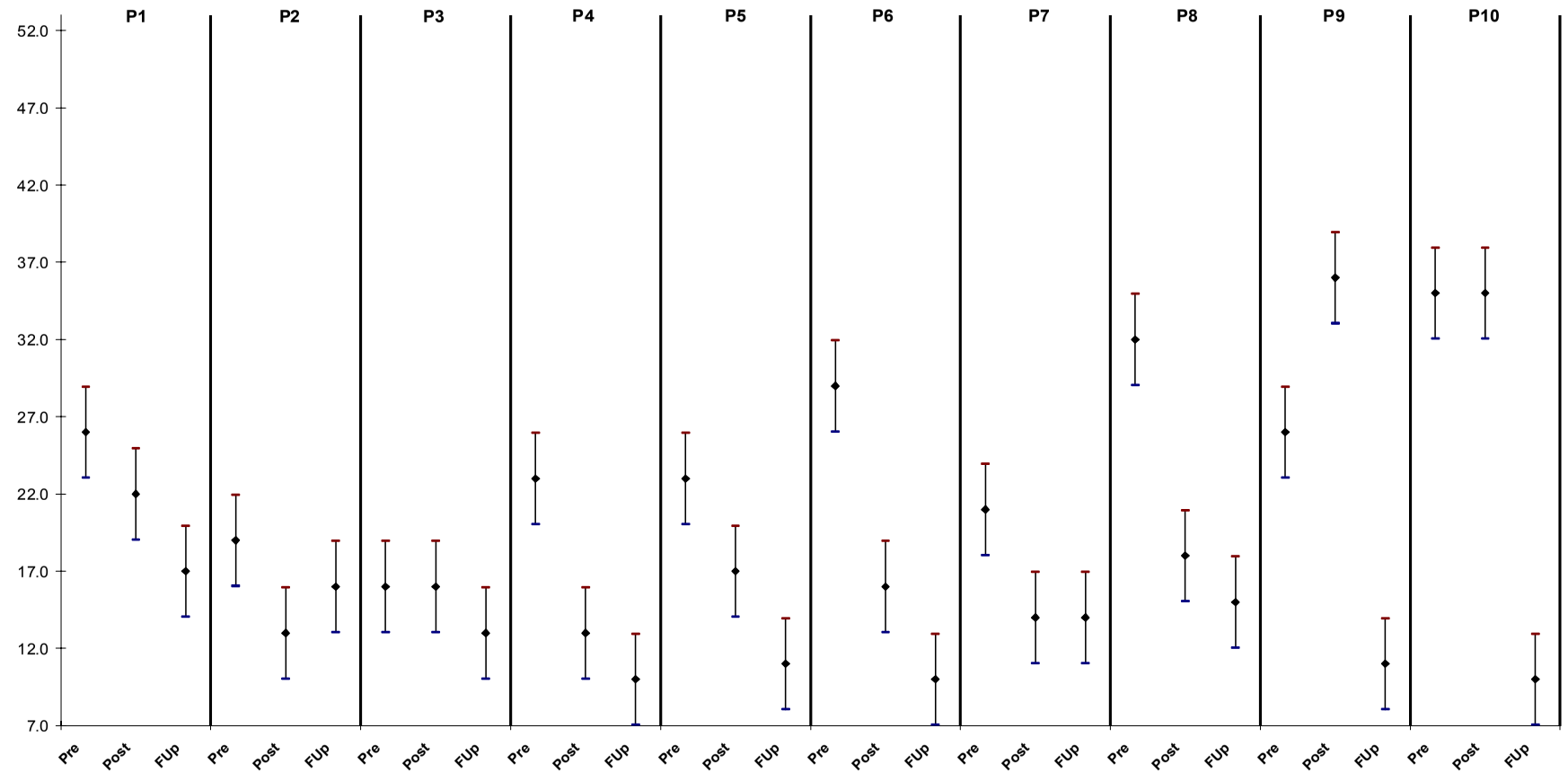


Figure 5. Pre-Intervention, Post-Intervention and Follow-Up Scores on the School Safety Survey – Revised for each Participant

Figure 5 shows that all participants except Participants 3, 9 and 10 had changes in the desired direction at post-intervention data collection in their level of victimisation. Participants 3 and 10 had no change in their victimisation scores, and Participant 9 actually reported an increase in their victimisation following the end of the intervention program. From post-intervention to the 3-month follow-up period, eight of the participants showed decreases in their victimisation levels, the majority of these actually showing floor effects. Participant 2 reported an increase in their victimisation from post-intervention to follow-up, and Participant 7 showed maintenance in their victimisation score following an initial drop following intervention.

Figure 6 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Child Behaviour Checklist.

P1 = Participant 1
P2 = Participant 2

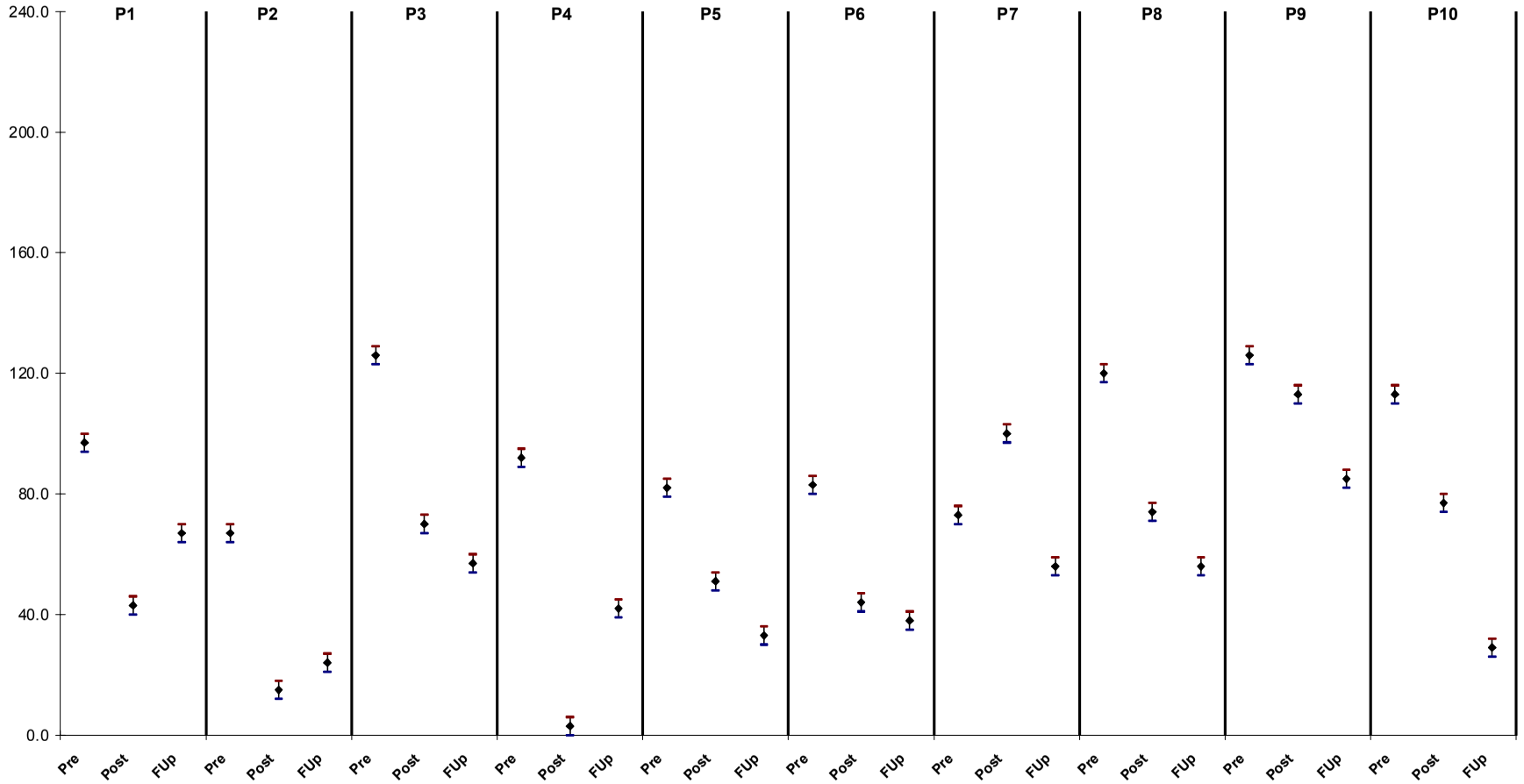


Figure 6. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Child Behaviour Checklist for each Participant

Figure 6 shows the scores on the Child Behaviour Checklist at the three data collection times. The figure shows that the standard error of measurement for this measure was low, resulting in no overlap between any of the data points. All participants except for Participant 7 showed movement in the desired direction from pre-intervention to post-intervention. Participant 7 then reported a decrease in behaviour problems from post-intervention to follow-up. Seven of the participants showed further decreases in their internalising and externalising behaviour from post-intervention to follow-up, one of which reported a follow-up score at the floor level, while the other three participants had an increase in their behaviour scores from post-intervention to follow-up.

Figure 7 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Perceived Wellness Survey for Youth.

P1 = Participant 1
P2 = Participant 2

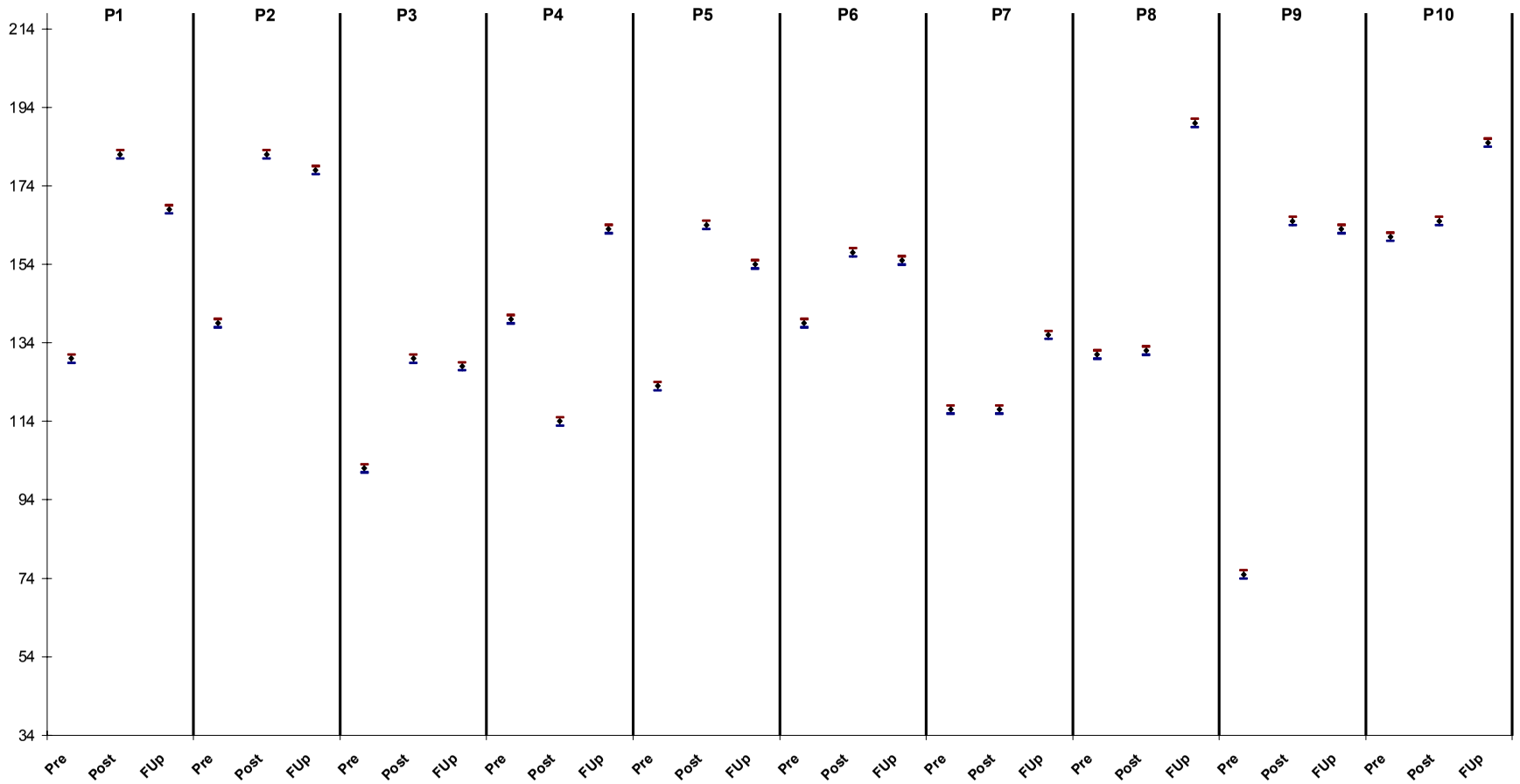


Figure 7. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Perceived Wellness Survey for Youth for each Participant

Similar to the Child Behaviour Checklist, the Perceived Wellness Survey for Youth had very low error, resulting in small error bars. Despite this, there was still some overlap in data points. Two of these incidents of overlap occurred from pre-intervention to post-intervention, indicating no significant change following the intervention for these participants. Four of the participants had overlap in their scores from post-intervention to follow-up, indicating maintenance of their improved levels of wellness after intervention. Only one participant showed deterioration in their perceived wellness from pre-intervention to post-intervention, while two participants had decreases in their perceived wellness during the 3-month follow-up period.

Figure 8 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Peer Victimisation Scale.

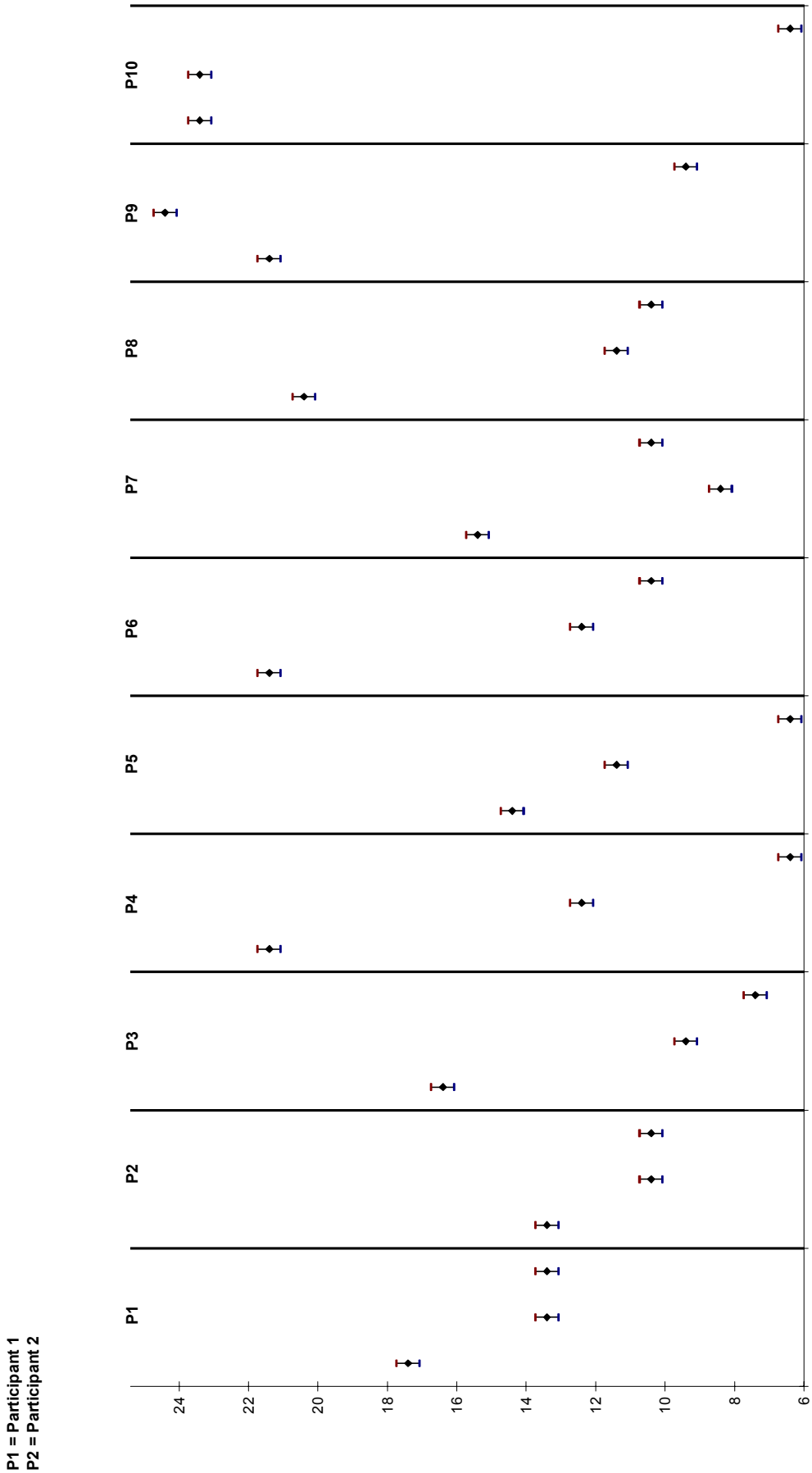


Figure 8. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Peer Victimisation Scale for each Participant

Figure 8 depicts participants' scores on the Peer Victimisation Scale at the three data collection times, and as the graph shows, there is very little error inherent in this scale. Eight of the ten participants showed reductions in their victimisation scores from pre-intervention to post-intervention, and a further five of these participants went on to report even lower victimisation scores by 3-month follow-up. One participant showed no change from pre-intervention to post-intervention, but then reported a score at 3-month follow-up at the minimum possible level of victimisation. Two other participants also reported the minimum possible score by the 3-month follow-up point. Another two participants showed no change in their victimisation from post-intervention to follow-up, indicating maintenance, while one participant reported an increase in the amount of bullying they were experiencing during this same time period.

Figure 9 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the General Health Questionnaire – 30 Item version.

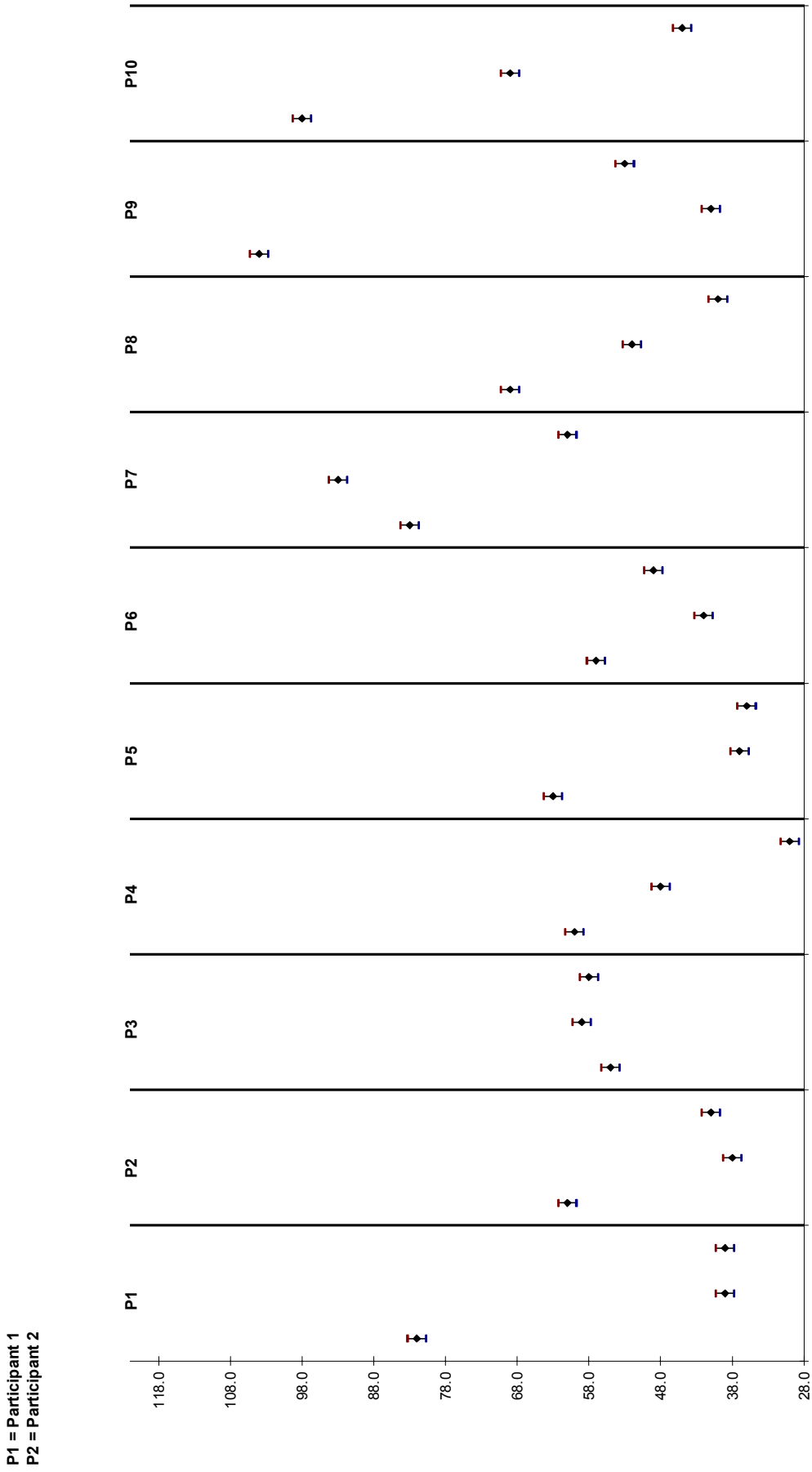


Figure 9. Pre-Intervention, Post-Intervention and Follow-Up Scores on the General Health Questionnaire – 30 Item for each Participant

Lower scores on the General Health Questionnaire – 30 Item are indicative of more positive functioning, therefore, the desired direction of change in Figure 9 is a decrease. Eight of the participants showed decreases in their scores from pre-intervention to post-intervention, and the other two participants showed increases in their scores. With regard to the changes seen from post-intervention to follow-up, four participants reported further improvements, three showed a maintenance in scores, and three reported a deterioration in their general health. None of the participants reported general health scores at the maximum possible scores, but one participant showed a floor effect at 3-month follow-up.

Figure 10 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Multidimensional Students' Life Satisfaction Scale.

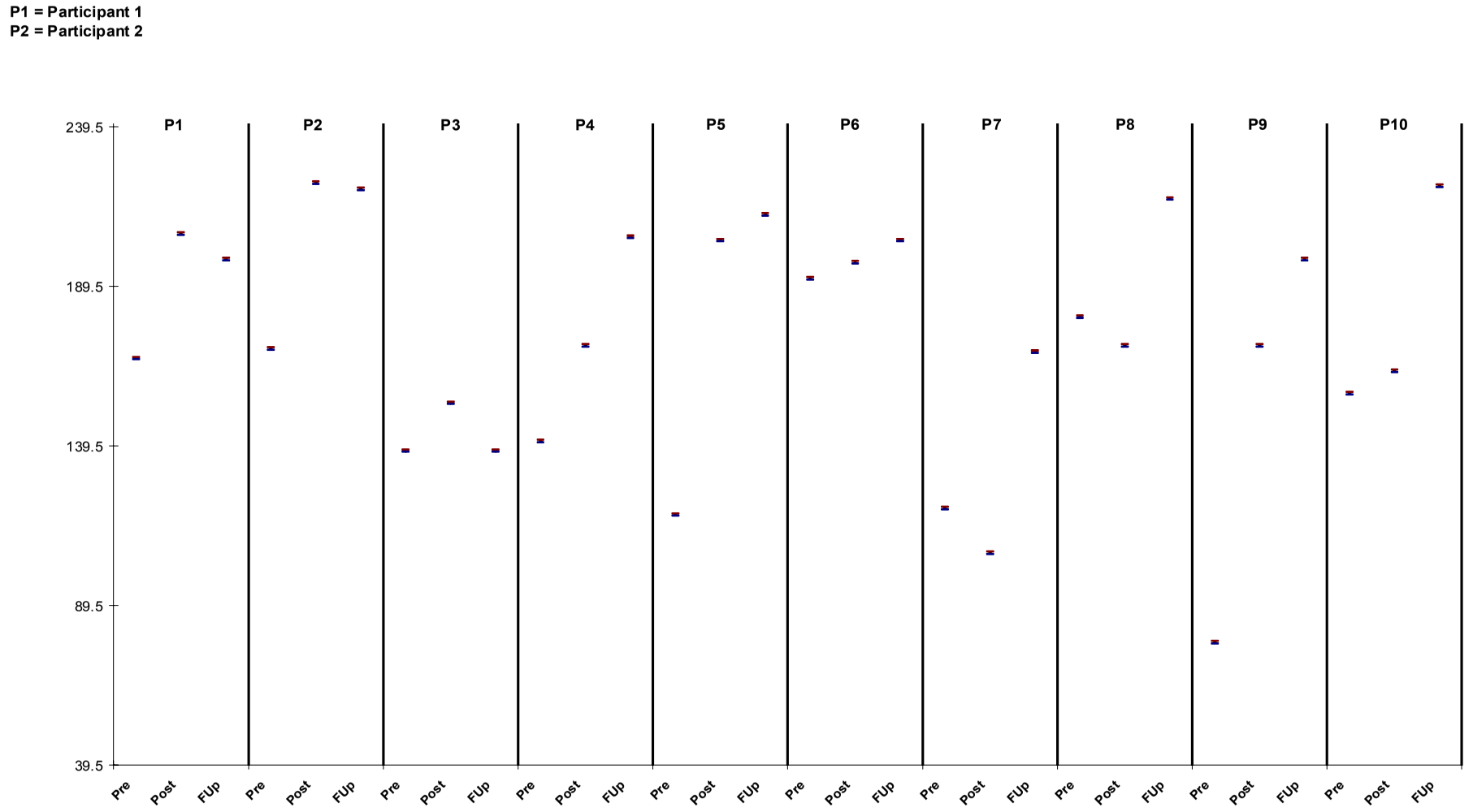


Figure 10. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Multidimensional Students' Life Satisfaction Scale for each Participant

Figure 10 shows that there was negligible error associated with the Multidimensional Students' Life Satisfaction Scale, resulting in only one instance of overlap in data point scores. This occurred for Participant 3 who initially reported an increase in their life satisfaction, from pre-intervention to post-intervention; however, their scores then returned to pre-intervention levels at the 3-month follow-up period. With regard to the individual changes seen from pre-intervention to post-intervention, eight of the participants reported increases in their life satisfaction, while two participants indicated a drop in their life satisfaction following intervention. Seven of the participants showed further increases in their life satisfaction from post-intervention to follow-up, one reported maintenance in life satisfaction, and two reported decreases in the follow-up period.

Figure 11 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Impact of Event Scale.

P1 = Participant 1
P2 = Participant 2

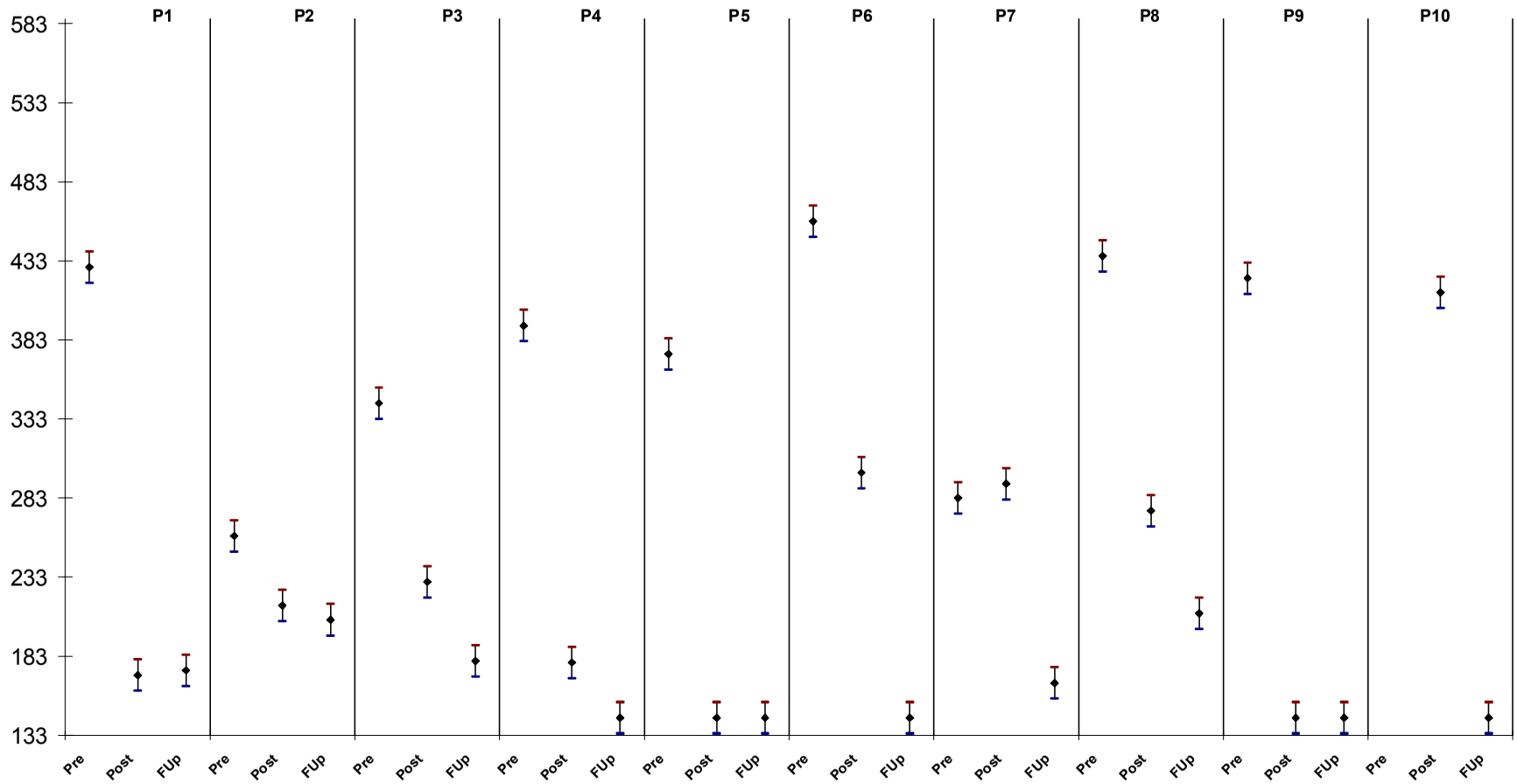


Figure 11. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Impact of Event Scale for each Participant

Figure 11 represents participants' level of perceived impact of their bullying experiences. Participant 10 did not complete the scale at pre-intervention; however, out of the nine participants who did return pre-intervention data, eight of these showed decreases in perceived impact, and one participant showed no change. With regard to the individual change from post-intervention to follow-up, six participants reported further deceases in perceived impact, while four participants showed no change, indicating maintenance of the level of impact they perceived the bullying was having. Two participants reported the lowest possible impact score following intervention, and a further three participants then reported the same low score at follow-up.

Figures 5 to 11 represent the variables measuring level of victimisation and the impact that victimisation was having on the participants. The majority of the participants showed improvements in their functioning on these measures following the intervention program. The improvements were often then maintained, or even further improvements were reported at 3-month follow-up.

Figure 12 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Individual Protective Factors Index.

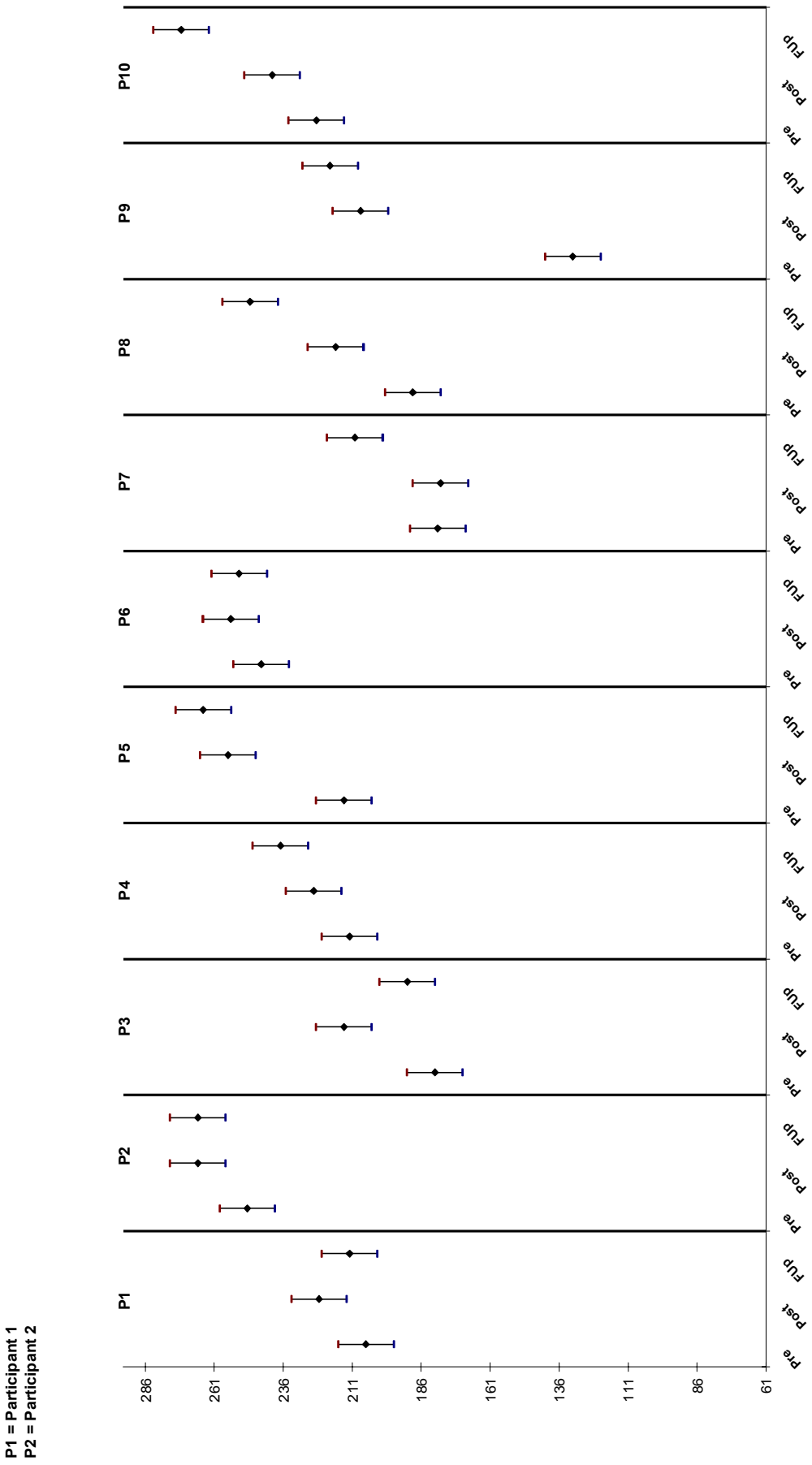


Figure 12. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Individual Protective Factors Index for each Participant

Figure 12 shows that from pre-intervention to post-intervention nine of the ten participants showed movement in the desired direction, with increases in their protective factors scores. One participant showed no change on this measure following intervention. In the period from post-intervention to 3-month follow-up, six participants reported increases in their protective factors scores, one participant's score decreased, and three participants showed no change in level of protective factors, indicating maintenance of their improvements. No floor or ceiling effects were evident; however, participants tended to be reporting protective factor levels in the mid to high range on this measure.

Figure 13 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Life Orientation Test – Revised.

P1 = Participant 1
P2 = Participant 2

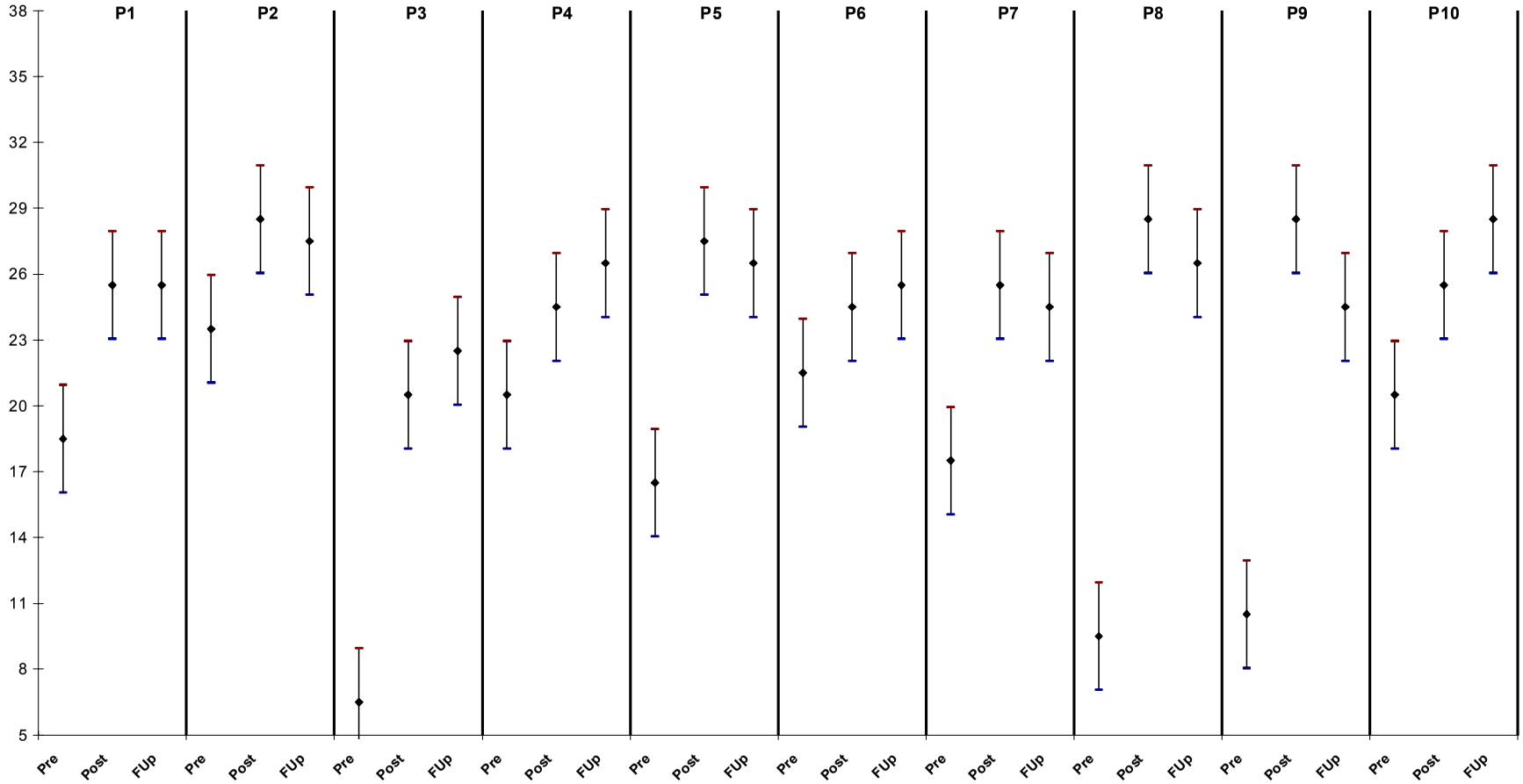


Figure 13. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Life Orientation Test – Revised for each Participant

Figure 13 shows that all ten of the participants showed improvements in their levels of optimism following the intervention (i.e., changes from pre-intervention to post-intervention). At pre-intervention, three of the participants reported floor, or close to floor, effects. From post-intervention to follow-up, only one participant went on to further increase their optimism score, and only one participant reported a deterioration in their optimistic thinking. The other eight participants showed maintenance in their optimism from post-intervention through to 3-month follow-up.

Figure 14 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Reference to Others subscale of the Adolescent Coping Scale.

P1 = Participant 1
P2 = Participant 2

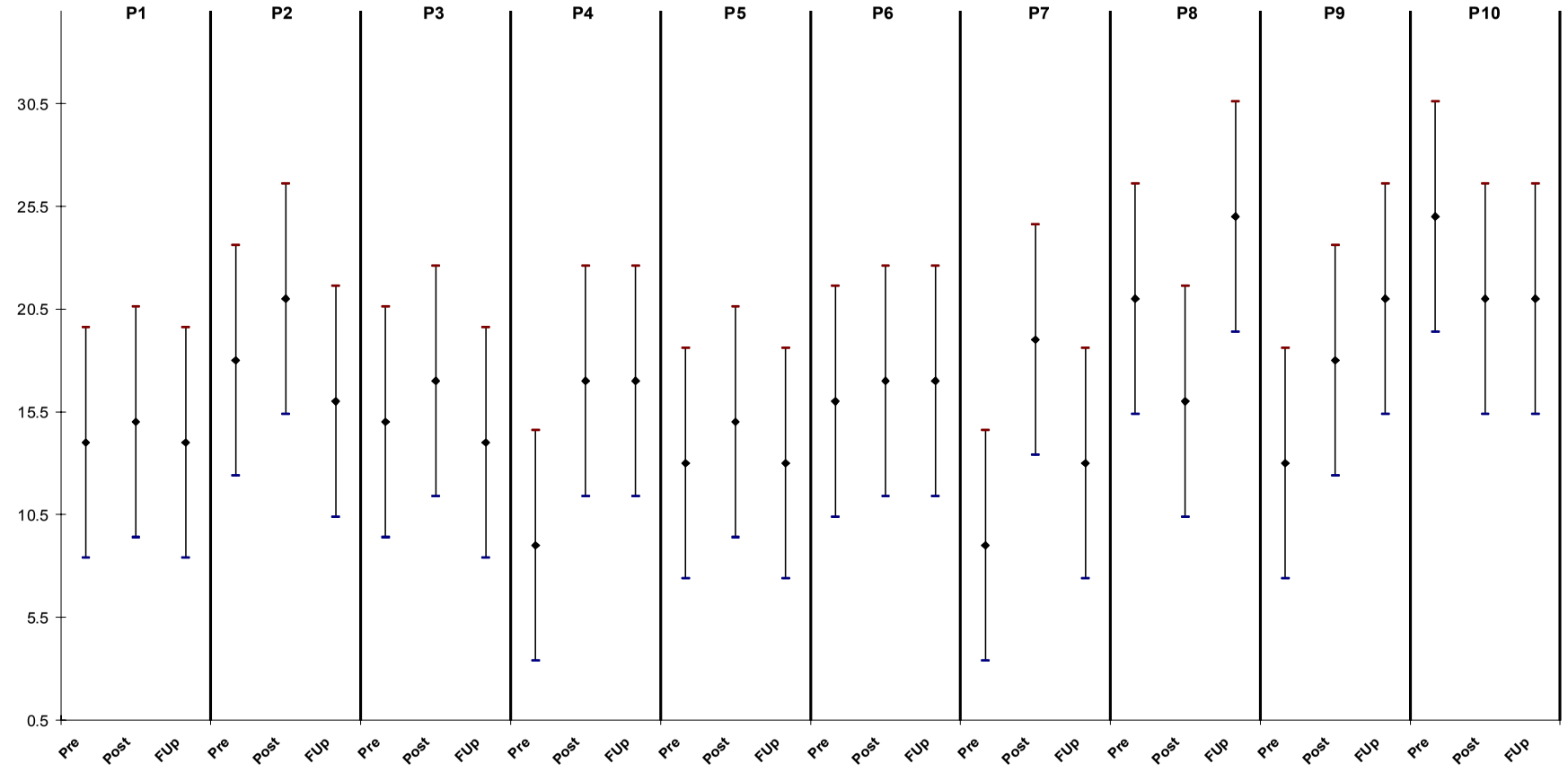


Figure 14. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Adolescent Coping Scale (Reference to Others) for each Participant

Figure 14 shows that there is a large amount of error inherent in the Adolescent Coping Scale. Consequently, there is a large proportion of overlap in the participants' scores. Because of the overlap, only two participants showed changes in their scores from pre-intervention to post-intervention; however, these changes were in the desired direction, with increases in the participants' use of reference to others as a coping strategy. Only one participant showed any change from post-intervention to 3-month follow-up; again this was in the desired direction – an increase in use of this coping technique. All other participants showed no change due to the overlap in scores.

Figure 15 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Problem Solving subscale of the Adolescent Coping Scale.

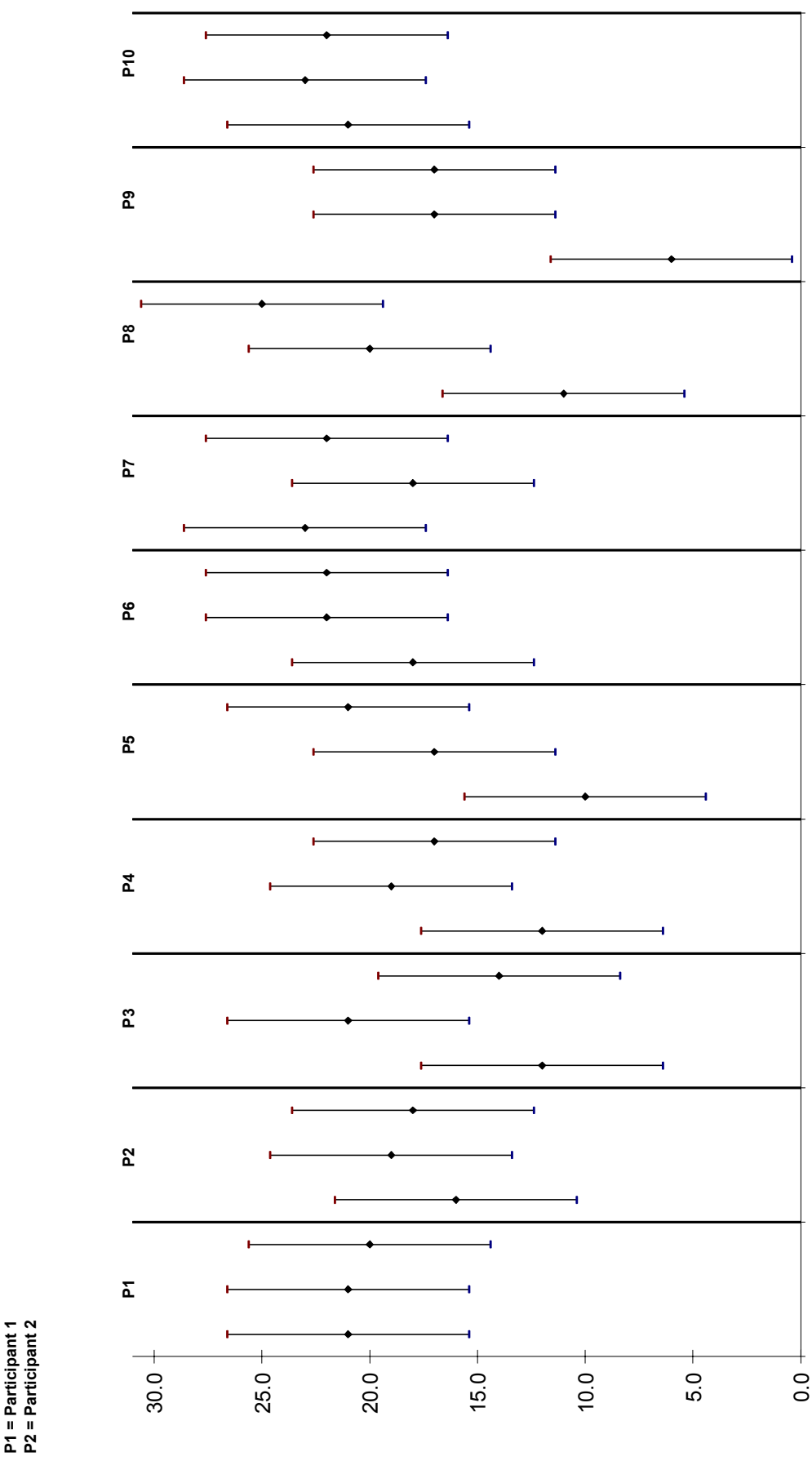


Figure 15. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Adolescent Coping Scale (Problem Solving) for each Participant

As with the previous graph, there is an extensive amount of overlap in the participants' scores on this subscale of the Adolescent Coping Scale. Despite this, five participants reported an increase in their use of problem solving coping following the intervention (i.e., positive change from pre-intervention to post-intervention). One of these five participants, after initially showing positive change, then reported a drop in their use of this coping strategy at 3-month follow-up. All other participants showed negligible change over the three data collection phases.

Figure 16 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Non-Productive Coping subscale of the Adolescent Coping Scale.

P1 = Participant 1
P2 = Participant 2

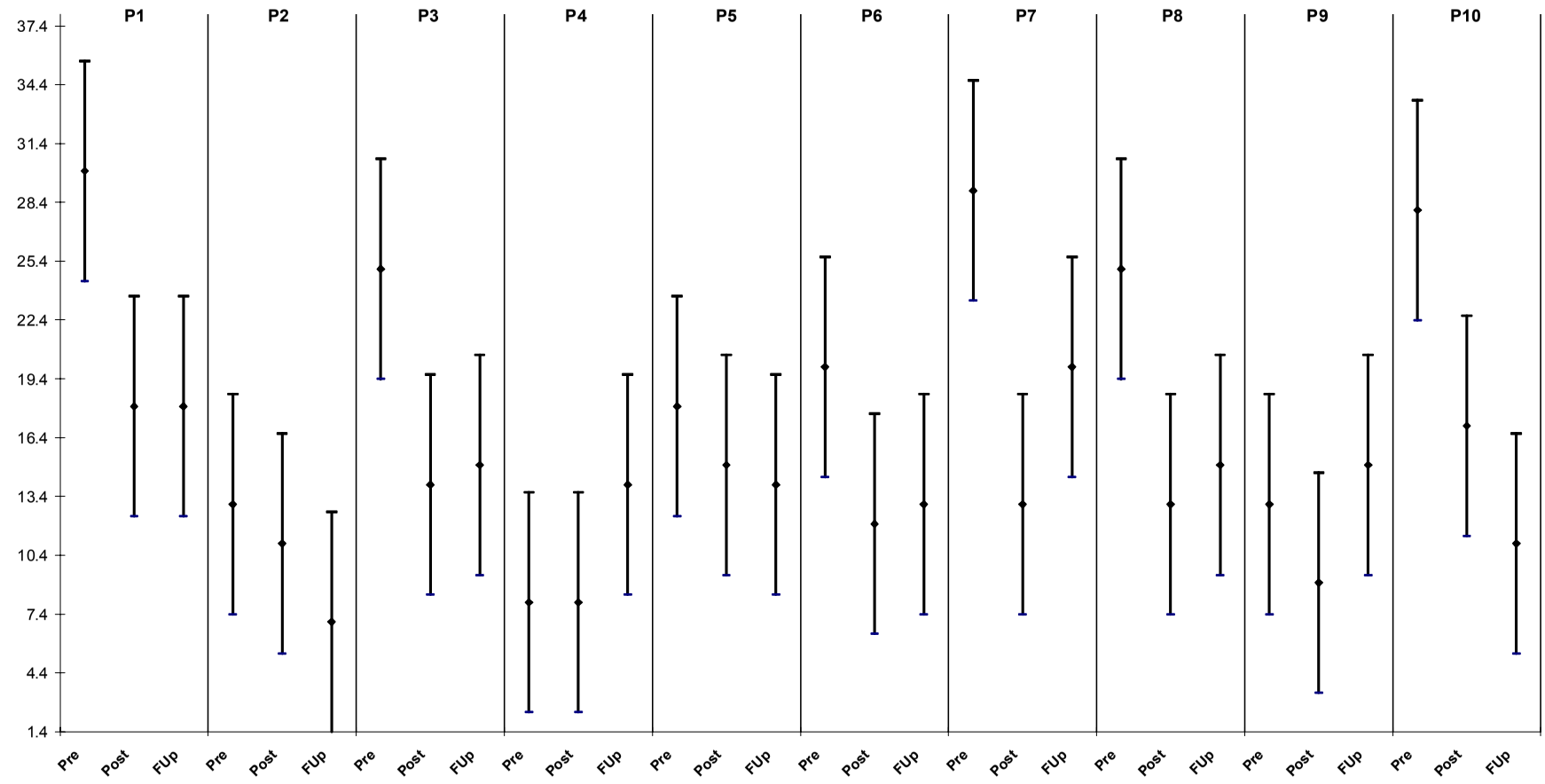


Figure 16. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Adolescent Coping Scale (Non-Productive Coping) for each Participant

Figure 16 shows participants' scores on the Non-Productive Coping subscale of the Adolescent Coping Scale. With regard to individual change from pre-intervention to post-intervention, six of the participants showed a decrease in their use of this type of coping (the desirable outcome), while the other four participants showed no change. In comparing the post-intervention scores to the 3-month follow-up scores, one participant reported an increase in their use of this coping strategy, one participants reported a further decrease, while the majority (eight participants) reported no change in their scores – indicating maintenance. At pre-intervention, three of the participants were reporting scores close to the maximum possible score on the Non-Productive subscale; however, at post-intervention and follow-up, four participants were reporting close to the lowest possible score on this subscale.

Figure 17 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Social Support Index.

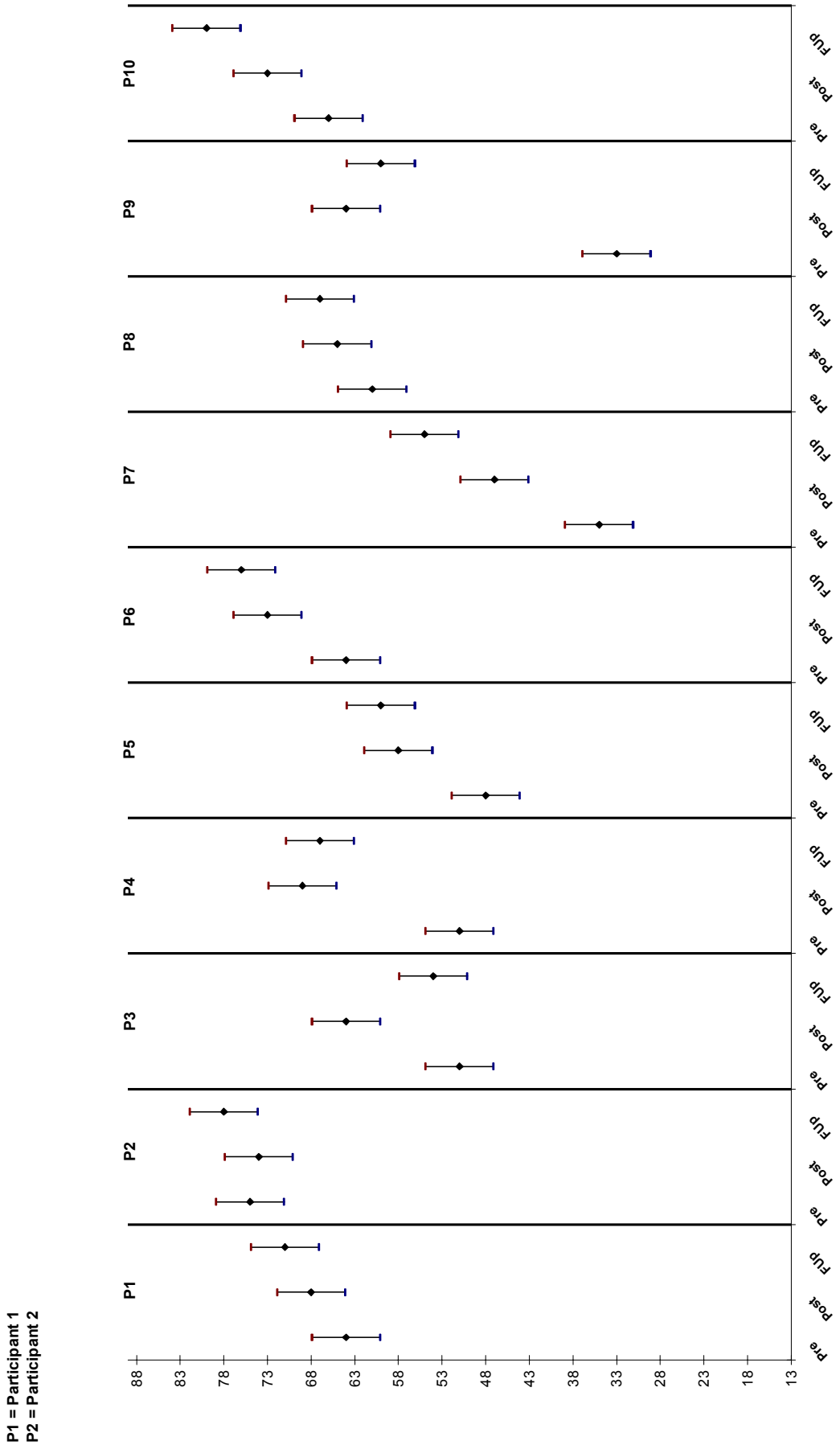


Figure 17. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Social Support Index for each Participant

Figure 17 shows that nine of the ten participants showed improvements in their perceived level of social support from pre-intervention to post-intervention. One participant showed no change in their score following intervention, although their pre-intervention score was already quite high. No participants reported a decrease in their perceived social support after the intervention. In the time period from post-intervention to 3-month follow-up, three participants reported even higher levels of social support; six reported maintenance in scores, while one participant had a decrease in their perceived level of support, although their follow-up score was still higher than their pre-intervention score. Figure 17 shows that no floor effects were evident; however, at 3-month follow-up, three of the participants reported scores close to the maximum possible score on the Social Support Index.

Figure 18 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Coopersmith Self-Esteem Inventory.

P1 = Participant 1
P2 = Participant 2

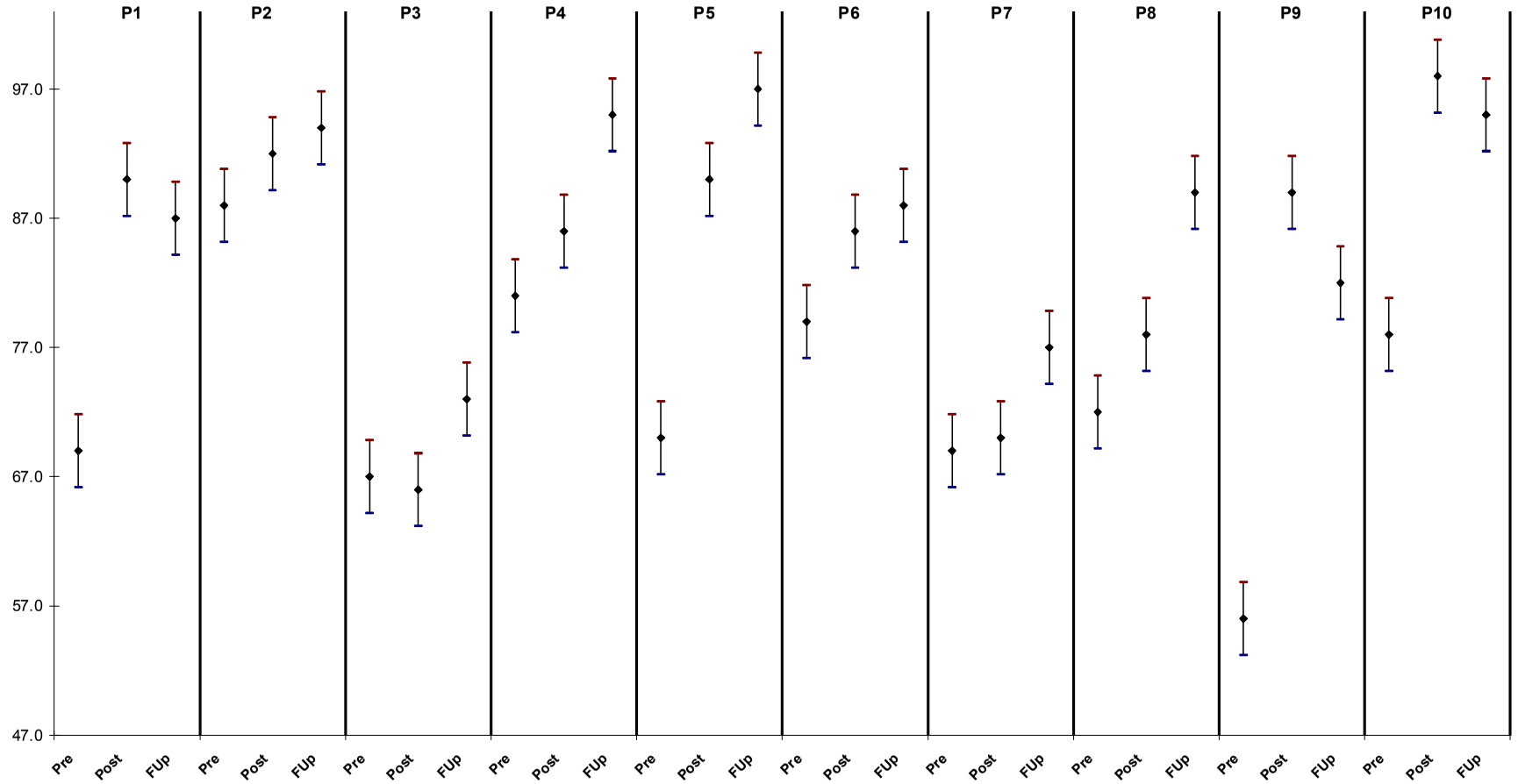


Figure 18. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Coopersmith Self-Esteem Inventory for each Participant

Figure 18 shows that eight of the participants showed substantial improvements in their reported levels of self-esteem following intervention, and two reported no noticeable change in their self-esteem. The majority of participants went on to report further increases in their self-esteem in the time from post-intervention to 3-month follow-up. Four of the participants reported maintenance of their increased self-esteem, while one participant (Participant 9) reported deterioration in self-esteem, from post-intervention to follow-up. Although Participant 9 reported a decrease at follow-up, their self-esteem score was still substantially above their pre-intervention score. None of the participants experienced floor effects; however, at 3-month follow-up, four of the participants reported scores close to the maximum possible score on this measure.

Figure 19 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Bully Behaviour Scale.

P1 = Participant 1
P2 = Participant 2

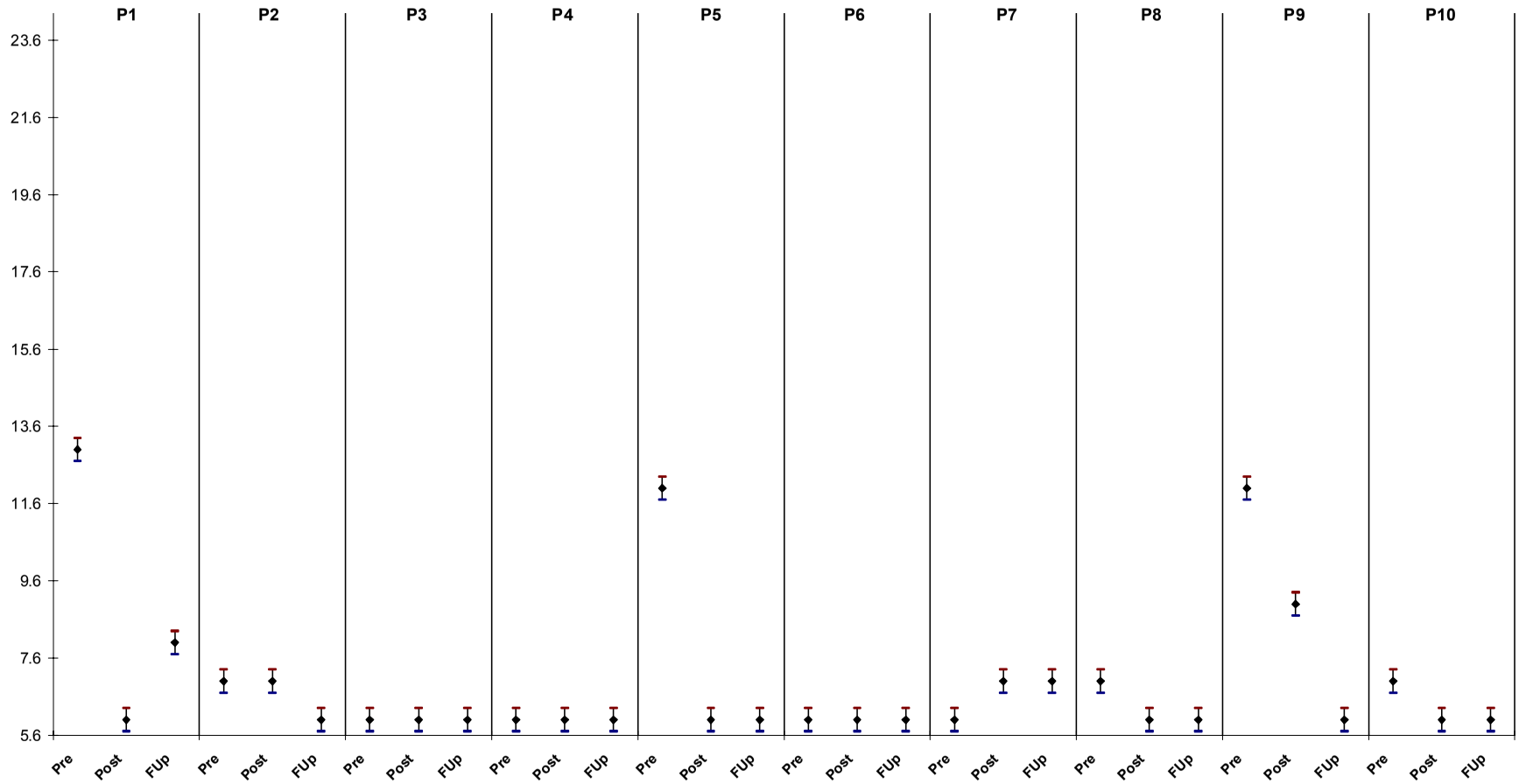


Figure 19. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Bully Behaviour Scale for each Participant

Figure 19 depicts the participants' reported levels of bully perpetration on the Bully Behaviour Scale, where the desired direction of change is a lowering of scores. The amount of error inherent in this measure is minimal and therefore the error bars around the obtained scores are small. While one participant showed a slight increase in their reported level of perpetration following intervention, five participants showed substantial decreases in their bullying of others. Four participants showed no change in their scores from pre-intervention to post-intervention; however, three of these were due to a floor effect. The individual changes seen from post-intervention to follow-up included one participant reporting an increase, two participants reporting decreases, and the remaining seven participants showing no change in their scores on the Bully Behaviour Scale. The seven participants with no change all experienced a floor effect, with each participant reporting the lowest possible score on this measure.

Figure 20 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the School Safety Survey – Revised (reversed version).

P1 = Participant 1
P2 = Participant 2

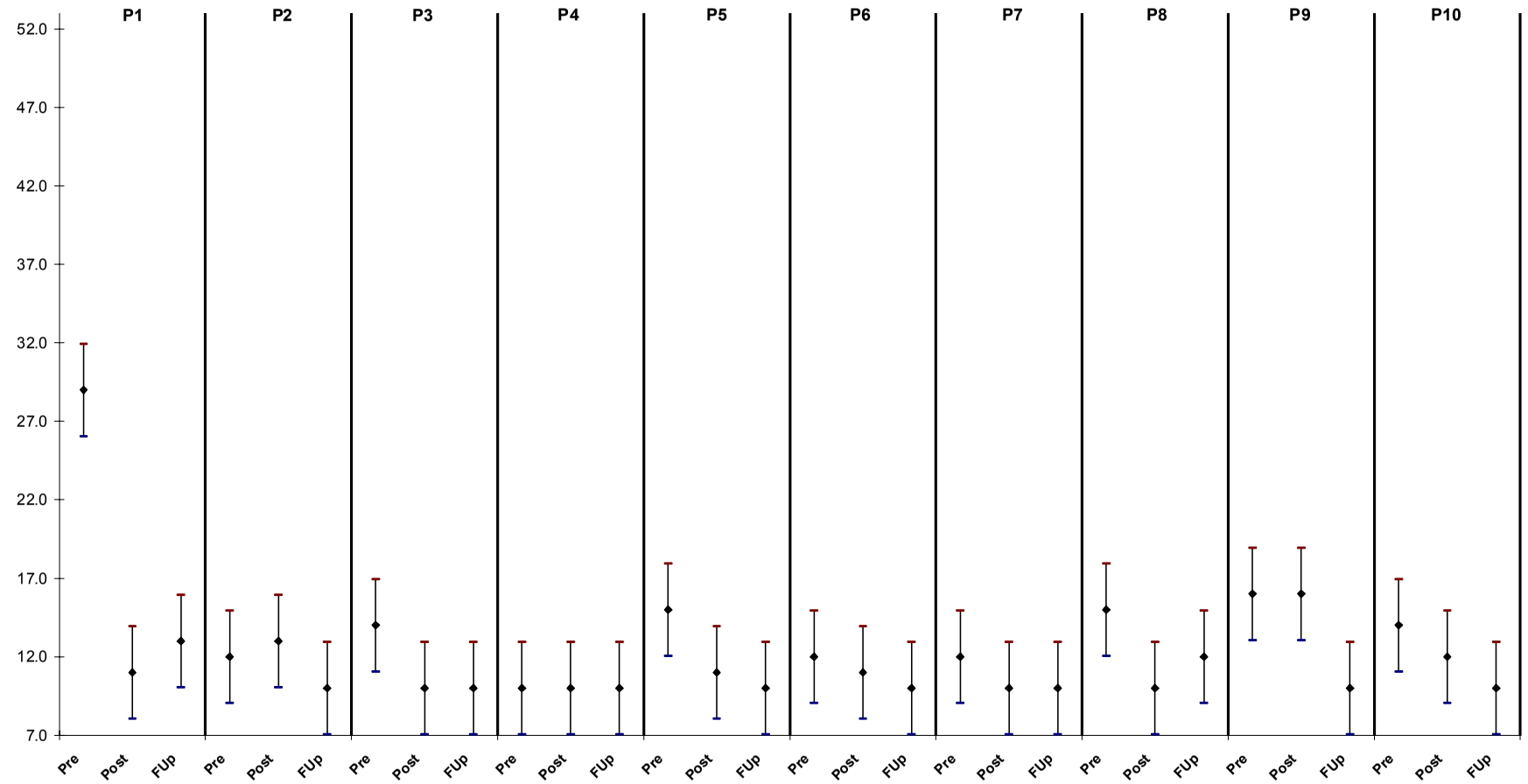


Figure 20. Pre-Intervention, Post-Intervention and Follow-Up Scores on the School Safety Survey – Revised (Reversed) for each Participant

Figure 20 shows the second measure of participants' bully perpetration levels. Participant's scores on the School Safety Survey – Revised (reversed version) were very similar to their scores on the Bully Behaviour Scale. Four participants showed a reported decrease in their bully perpetration following intervention, and six showed no change. From post-intervention to follow-up, one participant reported a further reduction in the level of bully perpetration, and the other nine participants reported no change at all. With regard to floor effects, one participant reported the minimum score at pre-intervention, four did so at post-intervention and by 3-month follow-up, eight participants reported the lowest possible score in this survey.

Figure 21 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Piers-Harris Children's Self-Concept Scale.

P1 = Participant 1
P2 = Participant 2

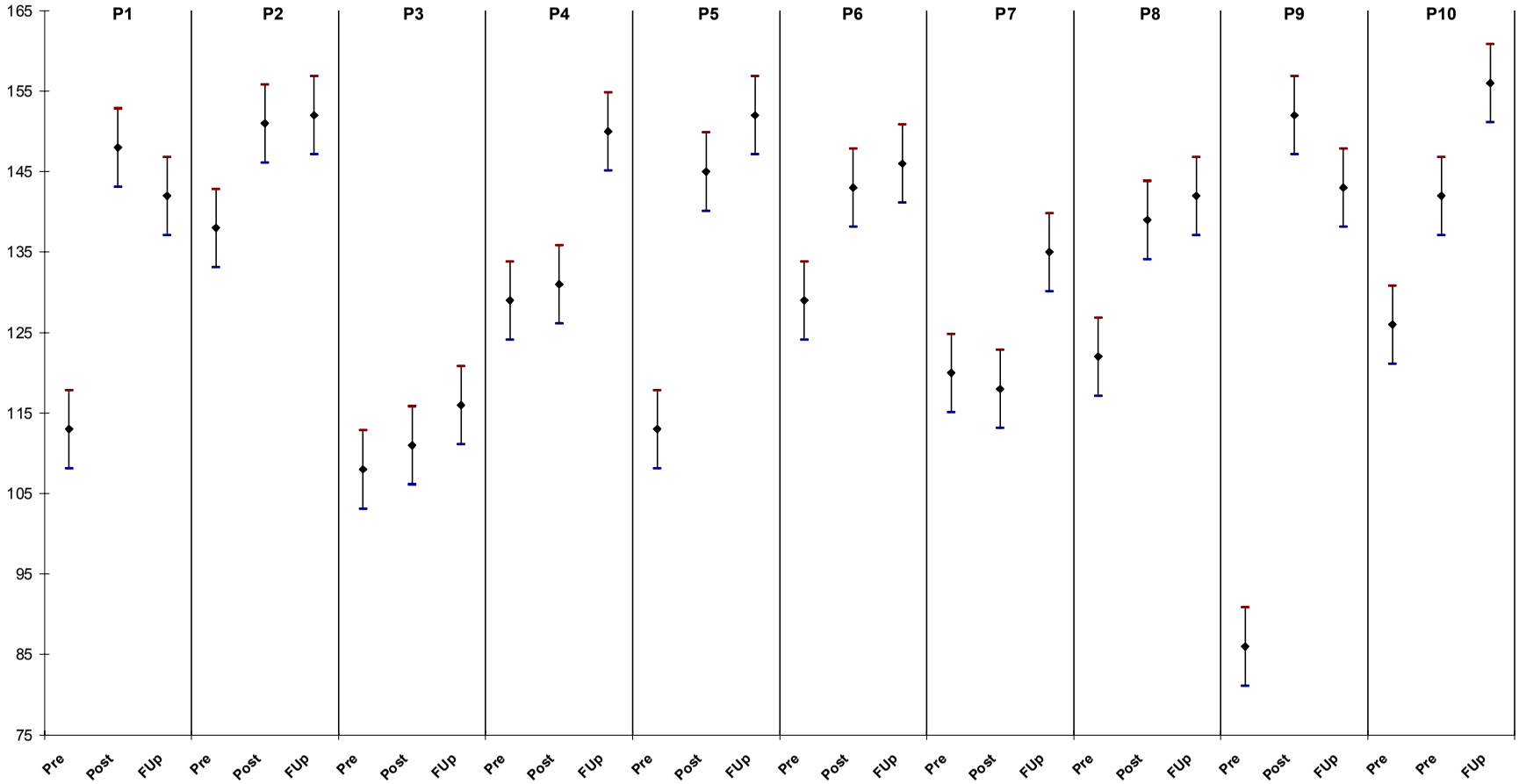


Figure 21. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Piers-Harris Children's Self-Concept Scale for each Participant

Figure 21 shows that from pre-intervention to post-intervention the majority (seven) of the participants moved in the desired direction and showed substantial improvements in their levels of self-concept. Two participants, although moving in the desired direction, did not report scores different enough to be considered substantial change, and one participant reported a slightly lower score in this scale. From post-intervention to 3-month follow-up, four participants reported further increases in the self-concept scores, and five reported no change, indicating maintenance of their improved self-concept. One participant reported a lower score at follow-up; however, this score was still substantially higher than their pre-intervention score. By 3-month follow-up, four participants were reporting levels of self-concept close to the highest possible scores on the Piers-Harris Children's Self-Concept Scale.

Figure 22 shows the pre-intervention, post-intervention and follow-up scores for each of the participants on the Social Skills Rating System.

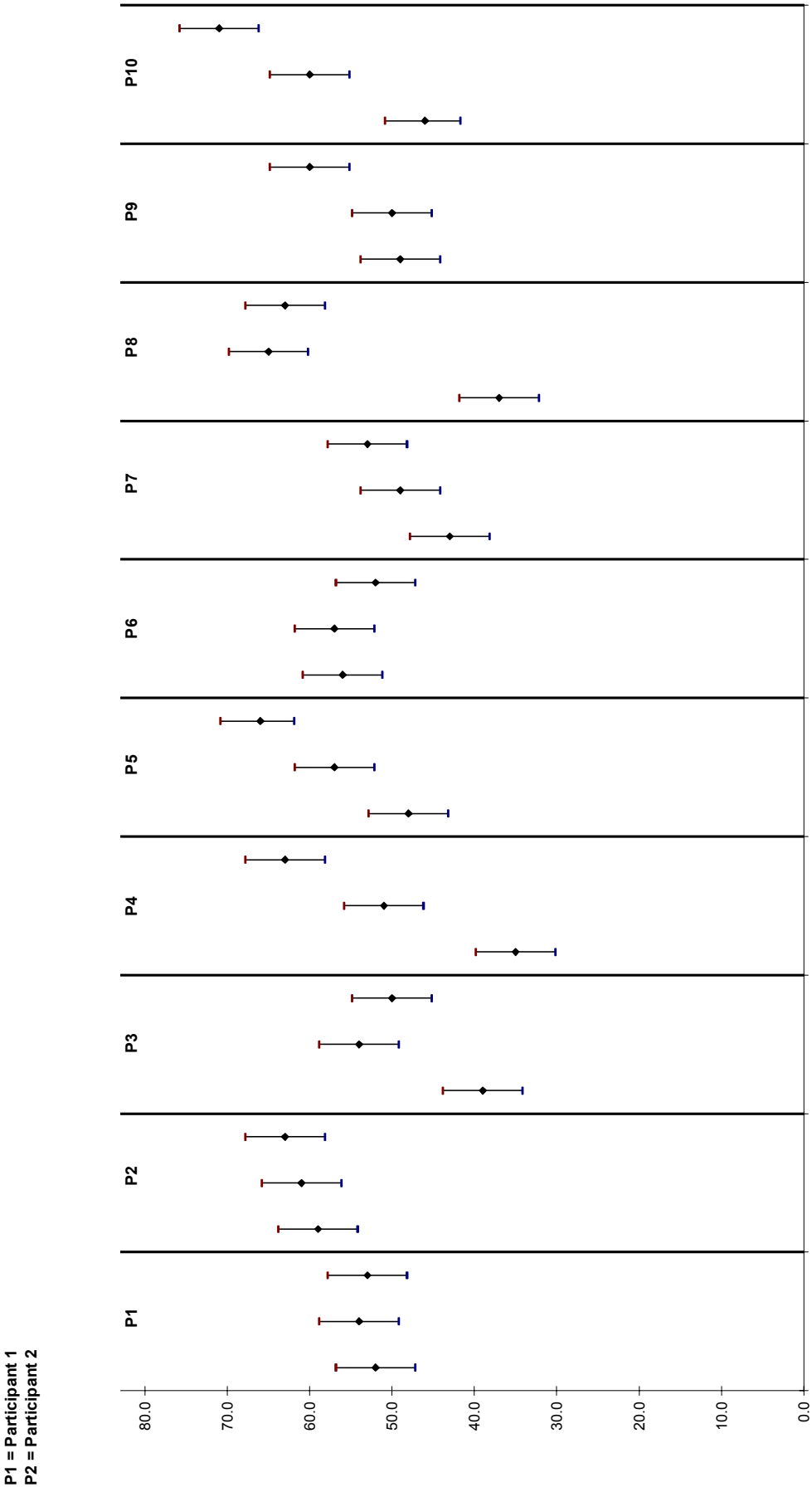


Figure 22. Pre-Intervention, Post-Intervention and Follow-Up Scores on the Social Skills Rating System for each Participant

The final graph of individual changes, Figure 22, shows no floor or ceiling effects. Six participants showed improvements in their social skills from pre-intervention to post-intervention, while the other four showed increases that were not large enough to be considered substantial. In the time between post-intervention and follow-up, four participants had gone on to report further increases in their social skills, and the other six maintained their new skills.

As with the impact variables, the majority of the intervention variables were shown to be improved, both following the intervention, and then at 3-month follow-up. Most of the newly learnt skills and attitudes were maintained at follow-up; however, some of the participants reported making further gains and improvements in the time from post-intervention to 3-month follow-up. These individual change scores were then collated into overall results for each of the variables. Results can be seen in Table 15.

Table 15

Summary of Visual Inspection Ratings for Impact and Intervention Variables

	Variable	Rating	Number of participants assigned each rating		
			Pre – Post Intervention	Post-Intervention – Follow-up	Pre-Intervention – Follow-up
Screening/ Impact Variables	SSS-R	Substantial change	5	3	8
		Moderate change	3	6	2
		No change	2	1	0
	CBCL	Substantial change	10	9	10
		Moderate change	0	1	0
		No change	0	0	0
	PWS-Y	Substantial change	8	7	10
		Moderate change	1	3	0
		No change	1	0	0
	PVS	Substantial change	9	8	10
		Moderate change	0	0	0
		No change	1	2	0
	GHQ-30	Substantial change	10	7	9
		Moderate change	0	0	1
		No change	0	3	0
	MSLSS	Substantial change	10	10	9
		Moderate change	0	0	0
		No change	0	0	1
	IES	Substantial change	8	6	9
		Moderate change	0	0	0
		No change	1	4	0

Table 15 continued

	Variable	Rating	Number of participants assigned each rating		
			Pre – Post Intervention	Post-Intervention – Follow-up	Pre-Intervention – Follow-up
Intervention Variables	IPFI	Substantial change	4	4	6
		Moderate change	5	3	2
		No change	1	3	2
	LOT-R	Substantial change	8	0	8
		Moderate change	2	2	2
		No change	0	8	0
	ACS – Reference to Others Coping	Substantial change	0	0	0
		Moderate change	2	2	2
		No change	8	8	8
	ACS – Problem Solving Coping	Substantial change	0	0	1
		Moderate change	5	1	2
		No change	5	9	7
	ACS – Non-Productive Coping	Substantial change	3	0	2
		Moderate change	3	4	6
		No change	4	6	2
	SSI	Substantial change	6	2	6
		Moderate change	3	3	2
		No change	1	5	2
	SEI	Substantial change	6	6	10
		Moderate change	2	2	0
		No change	2	2	0
	BBS	Substantial change	6	3	7
		Moderate change	0	0	0
		No change	4	7	3

Table 15 continued

	Variable	Rating	Number of participants assigned each rating		
			Pre – Post Intervention	Post-Intervention – Follow-up	Pre-Intervention – Follow-up
Intervention Variables continued	SSS-R (Reversed)	Substantial change	1	0	1
		Moderate change	3	2	5
		No change	6	8	4
	PHCSCS	Substantial change	7	3	9
		Moderate change	0	4	0
		No change	3	3	1
	SSRS	Substantial change	4	2	7
		Moderate change	2	3	0
		No change	4	5	3

Of the 18 variables, ten were expected to show increases as a result of the intervention program, while eight were expected to have reductions in the scores as a result of the program. Two of the impact variables were expected to show improvements in scores following intervention. Of the 60 possible ratings across the three phase comparisons of these two variables, 54 (90%) were rated as having substantial change, 4 (6.7%) were rated as having moderate change, and 2 (3.3%) were rated as having no change. For the remaining five screening/impact variables, 148 ratings were conducted. Of these, 121 (81.8%) were rated as having substantial change, 13 (8.9%) were rated as having moderate change, and 14 (9.3%) showed no change.

Of the eleven intervention variables, eight were expected to show improvements following the intervention program. This meant that a total of 240 ratings could be made on these eight variables. Of this total, 99 (41.3%) were rated as having made a substantial change, 51 (21.2%) had made moderate changes, and 90 (37.5%) had made no change following the end of the intervention. The remaining three intervention/target variables had 90 ratings conducted; 23 (25.6%) of which were given the rating of 'substantial change', a further 23 (25.6%) were rated as giving moderate change, and 44 (48.8%) had no change following intervention.

Summary of visual inspection of outcome variables. With regard to the analysis of the individual change data, the first seven figures represented the participants' levels of victimisation, and the level of impact that the participants perceived the bullying to be having. The majority of participants showed changes in the desired direction on each of these impact variables. Only on a very small number of occasions did a participant show deterioration in their functioning. In each of the cases where a participant did show a loss of functioning following intervention, the majority would then report improvements beyond their pre-intervention scores. For the most part, participants reported an initial increase in their functioning, followed by maintenance in victimisation and impact scores at 3-month follow-up.

The other 11 graphs represented the variables targeted in the intervention program. Similar to the impact variables, most of the intervention variables showed improvements, both following the intervention, and then at 3-month follow-up. Most of the newly learnt skills and attitudes were maintained at follow-up; however, some of the participants reported making further gains and improvements in the time from post-intervention to 3-month follow-up.

Daily Diary Data

In order to investigate if there were significant differences between the pre-intervention and intervention phases of the diary data variables, the split-middle technique described above was used. Following this, *t*-tests were conducted to assess if there were significant differences present between the mean pre-intervention score and the mean intervention score on each of the variables. Results for each of the daily diary data variables are presented below.

Self-esteem. Self-esteem was taught on the 36th day of the BRAVO intervention; therefore, the pre-intervention phase consisted of 35 data points and the intervention phase consisted of 21 data points. The group's mean scores across the entire intervention are plotted on Figure 23, which has had the split-middle technique applied to it. No significant autocorrelation was found in the self-esteem data; therefore the original data could be used.

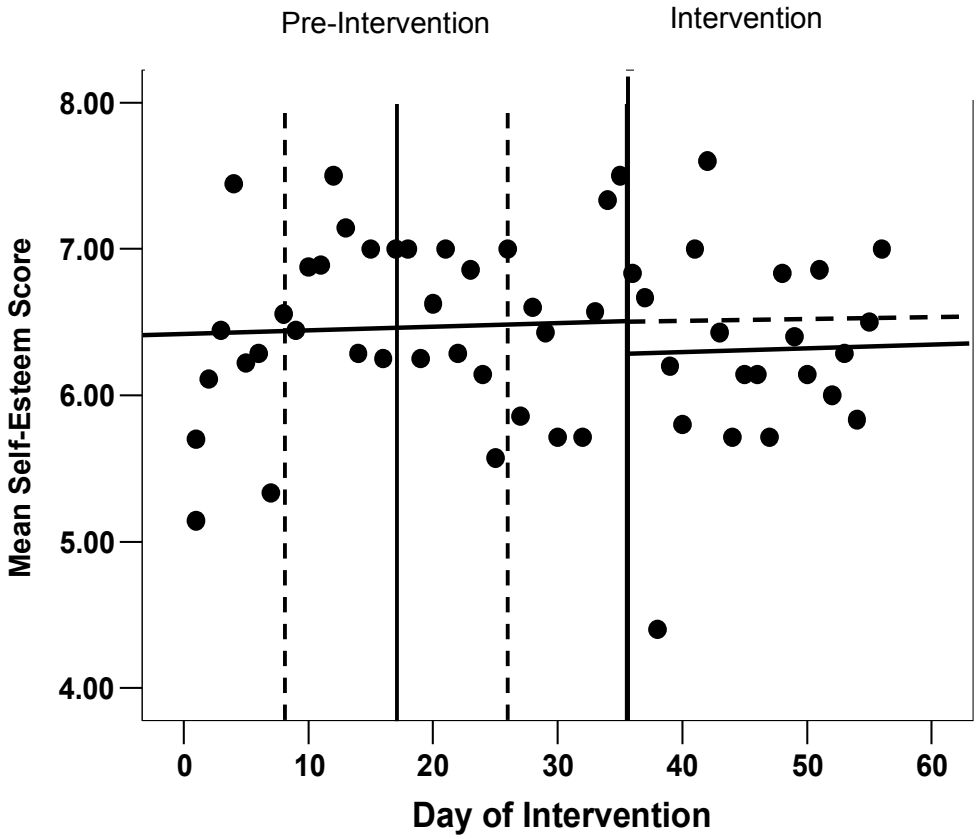


Figure 23. Split-Middle Graph of Group Mean Self-Esteem Across Intervention

Figure 23 shows that the group's self-esteem was steadily rising during the extended pre-intervention phase. The first diary recording following the session on self-esteem intervention lead to a slight drop in the group's mean self-esteem, which then continued to rise gradually. Their average score in both the pre-intervention and intervention phases was approximately 6.4, which equates to a self-esteem rating

between ‘average’ and ‘above average’ on the daily diary. The binomial test revealed a non-significant change in slope and trend following the intervention; therefore no significant intervention effect was found; the ratio of data points above and below the celeration line did not differ significantly from the expected 50:50 ratio.

In order to test for a significant difference between the mean pre-intervention phase score and mean intervention phase score, a *t*-test was performed and found no significant difference between the pre-intervention mean of 6.43 (*SD* = 0.12), and the intervention mean of 6.40 (*SD* = 0.14), *t* (54) = 0.72, *p* = .477.

Perception of the day. On the 15th day of intervention with the BRAVO program, participants were given psychoeducation about how their thoughts, feelings, and behaviours were all interrelated, and how this affects their perceptions of events. The first 14 days of diary data collection was considered the pre-intervention for this variable, followed by 42 days in the intervention phase. The group’s mean scores across the entire intervention are plotted on Figure 24, which has had the split-middle technique applied to it. No significant autocorrelation was found in the ‘perception of the day’ data; therefore the original data could be used.

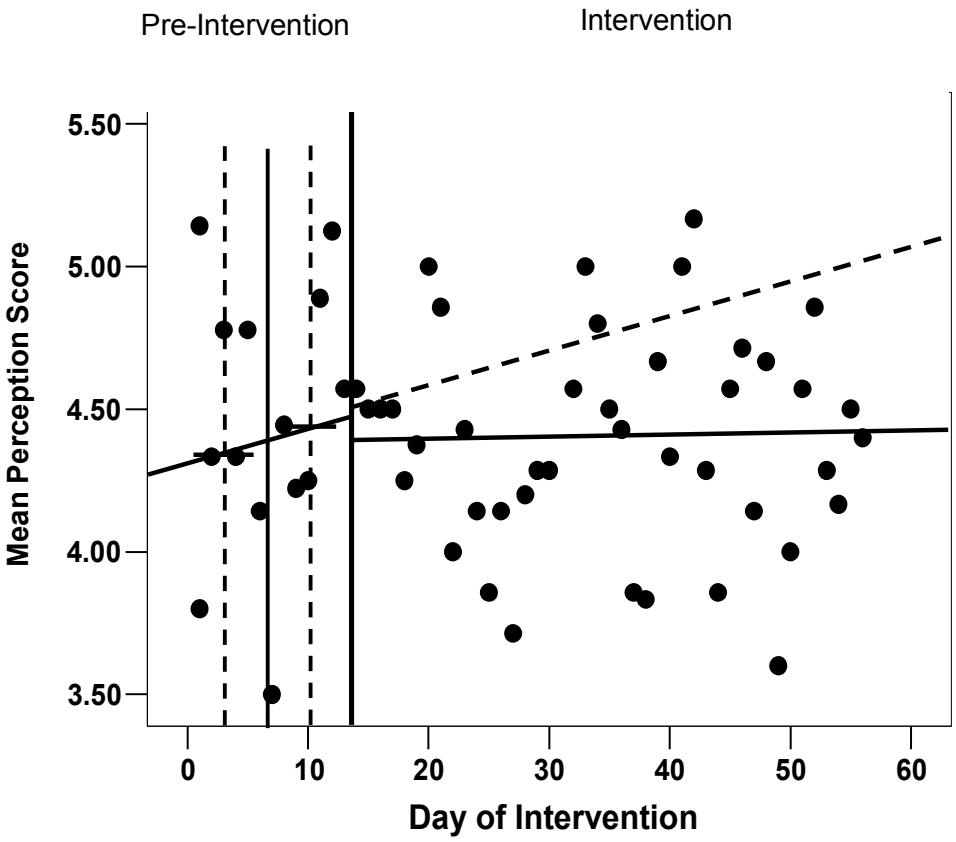


Figure 24. Split-Middle Graph of Group Mean ‘Perception of the Day’ Across Intervention

Figure 24 shows that the group's perception of their days was steadily becoming more positive during the pre-intervention phase. The first diary recording following the session on thoughts, feelings, and behaviours lead to a slight drop in the group's mean perception, followed by a plateau. Their average score in both the pre-intervention and intervention phases was approximately 4.4, which equates to a perception of the day rating between 'good' and 'really good' on the daily diary. The binomial test revealed a significant change in slope and trend following the intervention (p <.001), therefore a significant intervention effect was found; the ratio of data points above and below the celeration line differed significantly from the expected 50:50 ratio. In this case, there were significantly more data points below the celeration line, indicating a drop in perception following intervention; however, when a *t*-test was performed to test for differences between the mean pre-intervention phase score and mean intervention phase score, no significant difference was found between the pre-intervention mean of 4.40 (SD = 0.10), and the intervention mean of 4.40 (SD = 0.10), t (54) = -0.08, p = .935.

Loneliness. Social skills that would combat participant's levels of loneliness were taught on the 8th day of the BRAVO intervention. The pre-intervention phase therefore consisted of 7 data points and the intervention phase consisted of 49 data points. The group's mean scores across the entire intervention are plotted on Figure 25, which has had the split-middle technique applied to it. Significant autocorrelation was found in the loneliness data; therefore the data created by using the ARIMA model was used. This data is considered to be "whitened" data, free from any serial dependence.

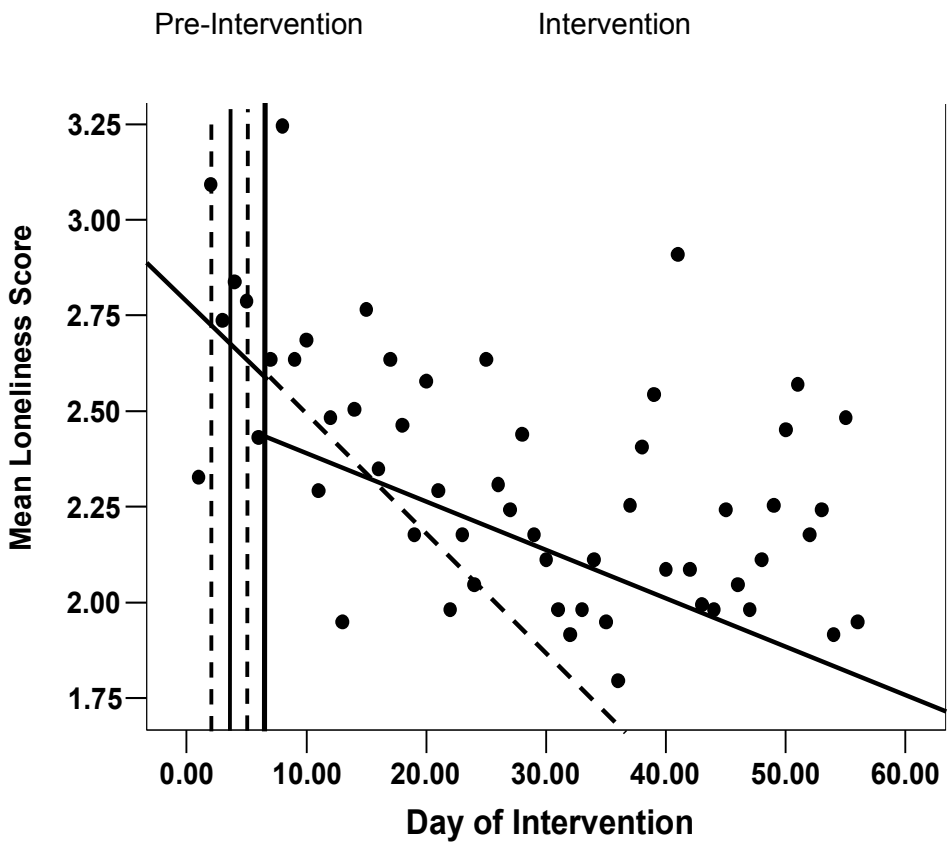


Figure 25. Split-Middle Graph of Group Mean Loneliness Across Intervention

Figure 25 shows that the group's overall level of loneliness was steadily declining over the pre-intervention phase. The first diary recording following the session on social skills intervention lead to a slight drop in the group's mean loneliness score, followed by a steady decline through the intervention phase. Although the group's loneliness levels continued to decline as they had in the pre-intervention phase, they did not do so as rapidly as the celeration line indicated. Their average score in the pre-intervention was approximately 2.7, while in the intervention phase it was approximately 2.3, which equates to a loneliness rating of 'not lonely at all' on the daily diary. The binomial test revealed a significant change in slope and trend following the intervention (p <.001), therefore a significant intervention effect was found; the ratio of data points above and below the celeration line differed significantly from the expected 50:50 ratio. In this case, there were significantly more data points above the celeration line, indicating that loneliness scores may have been even lower if no intervention had taken place. When a *t*-test was performed to test for differences between the mean pre-intervention phase score (M = 2.69, SD = 0.26) and mean intervention phase score (M = 2.28, SD = 0.30), a significant difference was found, t (54) = 3.50, p = .001, d = 0.22 (-0.58, 1.01). This significant change in loneliness scores following intervention was in the desired direction.

Number of types of bullying experienced. After one week of intervention with the BRAVO program, an arbitrary pre-intervention phase was established. It was believed that after one week, the skills and attitudes that the participants were acquiring through the program may lead to a decrease in the amount and number of types of bullying the participants would experience. No direct intervention was implemented to decrease the amount of bullying that participants were experiencing, but it was hoped that as a side effect of the intervention bullying would decrease. Therefore, the first 7 days of diary data collection was considered the pre-intervention for this variable, followed by 49 days in the intervention phase. The group's mean scores across the entire intervention are plotted on Figure 26, which has had the split-middle technique applied to it. Significant autocorrelation was found in the loneliness data; therefore the data created by using the ARIMA model was used.

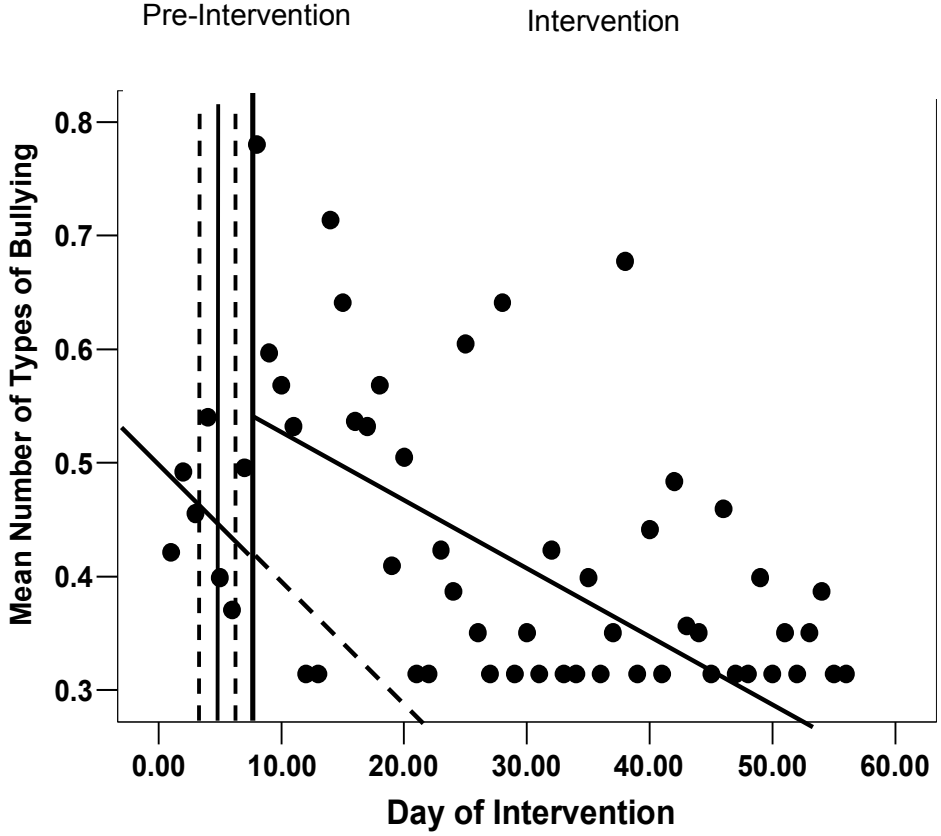


Figure 26. Split-Middle Graph of Group Mean Number of Types of Bullying Experienced Across Intervention

Figure 26 shows that the group's overall number of types of bullying being experienced was steadily declining over the pre-intervention phase. The first diary recording following the session of intervention was related to an initial increase in the group's mean score, followed by a steady decline through the intervention phase. Although the group's bullying experience levels continued to decline as it had in the

pre-intervention phase, they did not do so as rapidly as the celeration line indicated they should. Their average score in the pre-intervention and intervention phases was approximately 0.4, indicating a very small average number of types of bullying being experienced by the participants. The binomial test revealed a significant change in slope and trend following the intervention (p <.001), therefore a significant intervention effect was found; the ratio of data point above and below the celeration line differed significantly from the expected 50:50 ratio. In this case, there were significantly more data points above the celeration line, indicating that the number of types of bullying being experienced by the participants may have been even lower if no intervention had taken place; however, when a *t*-test was performed to test for differences between the mean pre-intervention phase score and mean intervention phase score, no significant difference was found between the pre-intervention mean of 0.45 (SD = 0.06), and the intervention mean of 0.42 (SD = 0.13)., t (54) = 0.69, p = .491.

Productive coping. Coping techniques were taught on the 50th day of the BRAVO intervention; therefore, the pre-intervention phase consisted of 49 data points and the intervention phase consisted of 7 data points. The group's mean scores across the entire intervention are plotted on Figure 27, which has had the split-middle technique applied to it. Autocorrelation could not be calculated due to missing data in the series, therefore, the ARIMA procedure was utilised to ensure that if any serial dependency was present, it would be accounted for.

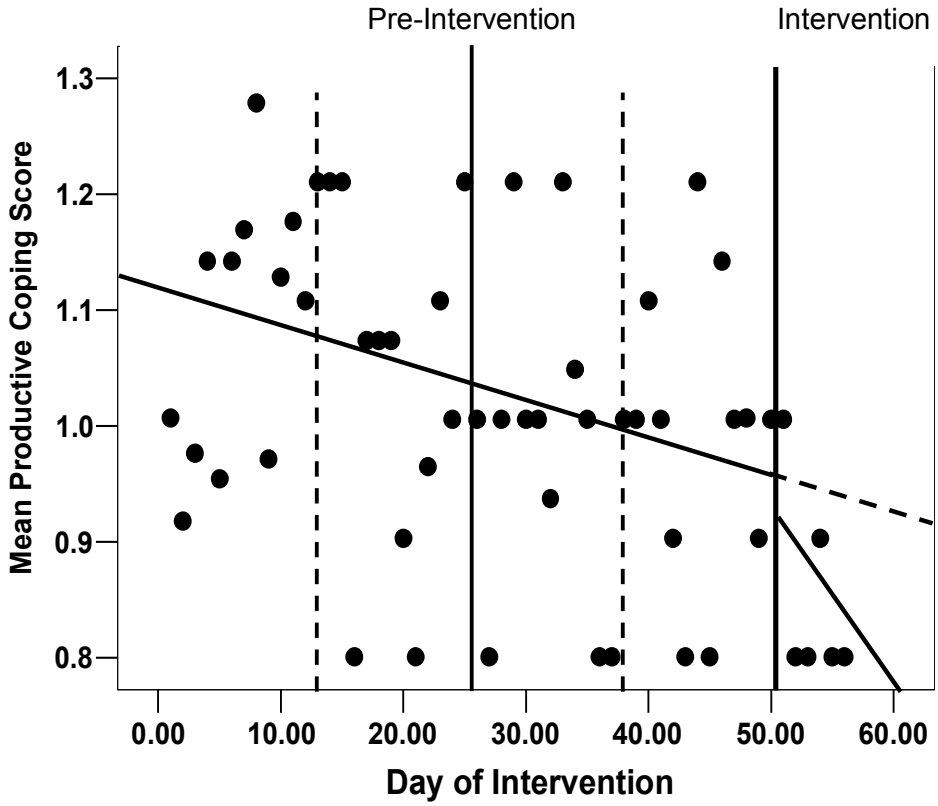


Figure 27. Split-Middle Graph of Group Mean Productive Coping Across Intervention

Figure 27 shows that the group's use of productive coping strategies was falling gradually during the extended pre-intervention phase. The first diary recording following the session on coping intervention lead to a slight drop in the group's mean productive coping, which then continued to decrease in the intervention phase. Their average score in the pre-intervention phase was approximately 1, while their average score in the intervention phase was 0.9, which equates to the participants indicating that they were using, on average, 1 productive coping technique each day. The binomial test revealed a non-significant change in slope and trend following the intervention; therefore no significant intervention effect was found; the ratio of data point above and below the celeration line did not differ significantly from the expected 50:50 ratio.

When a *t*-test was performed to test for differences between the mean pre-intervention phase score (M = 1.03, SD = 0.13) and mean intervention phase score (M = 0.87, SD = 0.10), a significant difference was found, t (54) = 2.92, p = .005, d = 1.18 (0.35, 2.00), which was not in the desired direction.

Non-productive coping. As with the Productive coping information, coping techniques were taught on the 50th day of the BRAVO intervention; therefore, the pre-intervention phase consisted of 49 data points and the intervention phase

consisted of 7 data points. The group's mean scores across the entire intervention are plotted on Figure 28, which has had the split-middle technique applied to it. Autocorrelation could not be calculated due to missing data in the series; therefore, the ARIMA procedure was utilised to ensure that if any serial dependency was present, it would be accounted for.

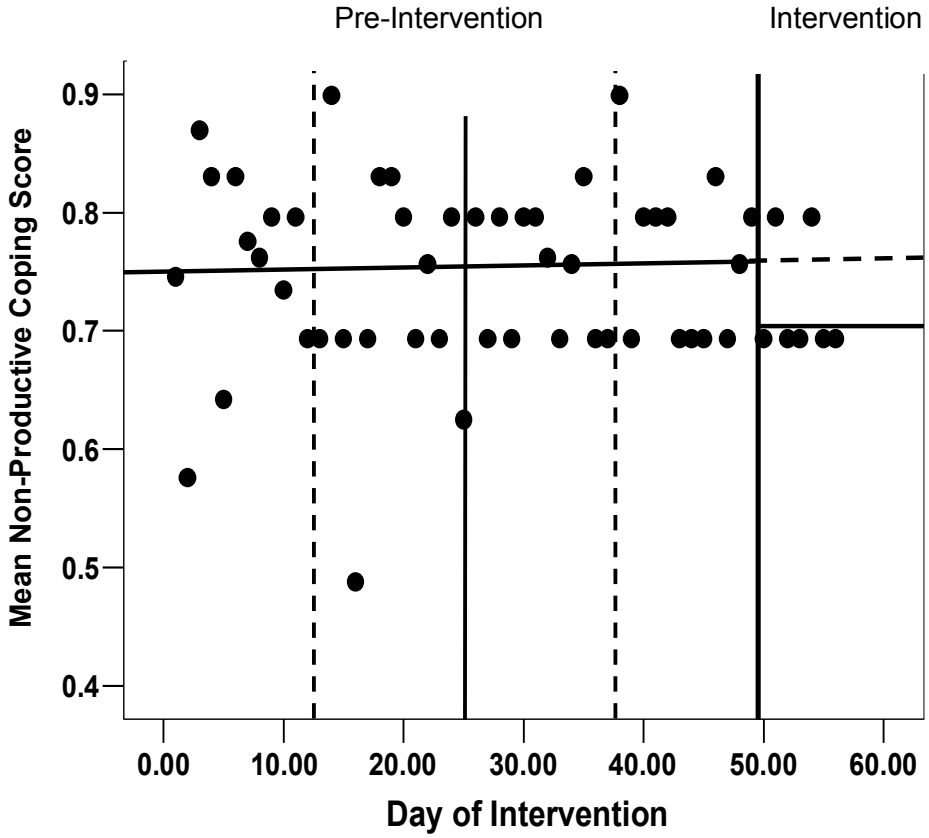


Figure 28. Split-Middle Graph of Group Mean Non-Productive Coping Across Intervention

Figure 28 shows that the group's non-productive coping was very gradually rising during the extended pre-intervention phase. The first diary recording following the session on coping intervention was related to a slight drop in the group's mean non-productive coping, which then stayed steady at this lower level throughout the intervention phase. Their average score in the pre-intervention phase was approximately 0.75, while in the intervention phase, the group's average score was 0.72, which equates to the participants indicating that they were using, on average, less than 1 non-productive coping technique each day. The binomial test revealed a non-significant change in slope and trend following the intervention; therefore no significant intervention effect was found; the ratio of data points above and below the celeration line did not differ significantly from the expected 50:50 ratio. In order to test for a significant difference between the mean pre-intervention phase score and mean

intervention phase score, a *t*-test was performed and found no significant difference, between the pre-intervention mean of 0.75 (*SD* = 0.08), and the intervention mean of 0.72 (*SD* = 0.05), *t* (54) = 0.83, *p* = .409.

Coping effectiveness. On the 50th day of the BRAVO intervention, coping techniques were taught, along with information about what constituted helpful (productive) coping, and unhelpful (non-productive) coping. Therefore, the pre-intervention phase consisted of 49 data points and the intervention phase consisted of 7 data points. The group's mean scores across the entire intervention are plotted on Figure 29, which has had the split-middle technique applied to it. No significant autocorrelation was found in the coping effectiveness data; therefore the original data could be used.

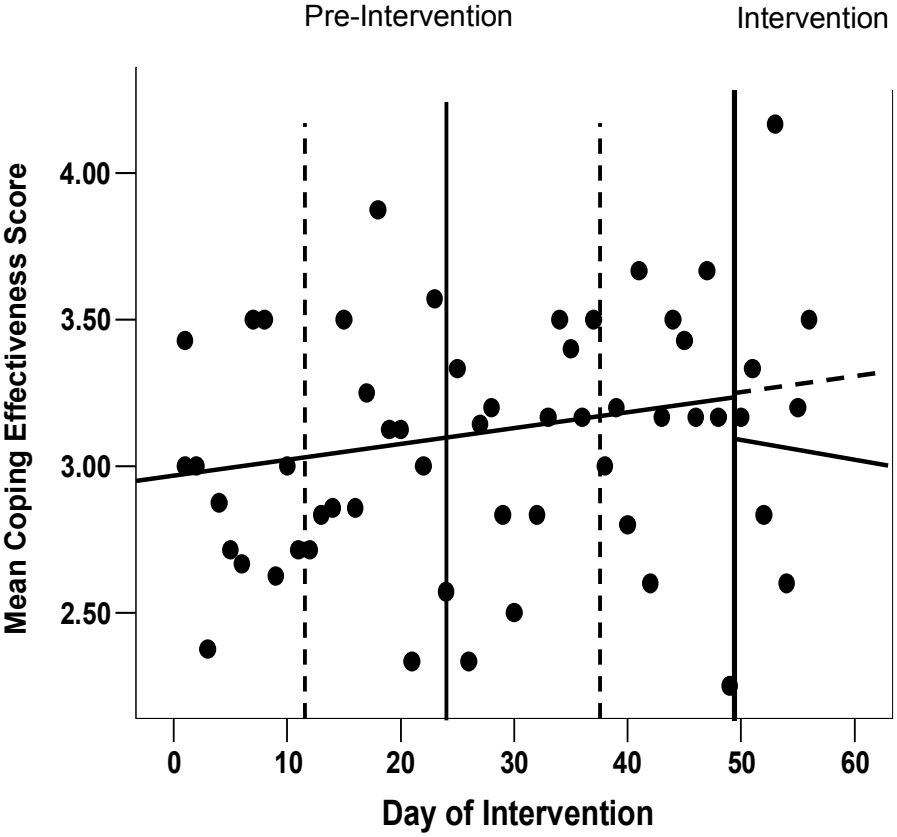


Figure 29. Split-Middle Graph of Group Mean Coping Effectiveness Across Intervention

Figure 29 shows that the group's coping effectiveness was gradually rising during the extended pre-intervention phase. The first diary recording following the session on coping intervention was related to a slight drop in the group's mean coping effectiveness, followed by a steady decline during the seven intervention days. Their average score in both the pre-intervention and intervention phases was approximately 3.07, which equates to the participants indicating that their coping

effectiveness was 'bad' on the daily diary. The binomial test revealed a non-significant change in slope and trend following the intervention, therefore no significant intervention effect was found; the ratio of data points above and below the celeration line did not differ significantly from the expected 50:50 ratio. In order to test for a significant difference between the mean pre-intervention phase score and mean intervention phase score, a *t*-test was performed and found no significant difference, between the pre-intervention mean of 3.08 (*SD* = 0.05), and the intervention mean of 3.08 (*SD* = 0.09), *t* (54) = 54, *p* = .952.

Social support. Information about social support was taught to the participants on day 43 of the BRAVO program, therefore, the pre-intervention phase consisted of 42 data points and the intervention phase consisted of 14 data points. The group's mean scores across the entire intervention are plotted on Figure 30, which has had the split-middle technique applied to it. No significant autocorrelation was found in the coping effectiveness data; therefore the original data could be used.

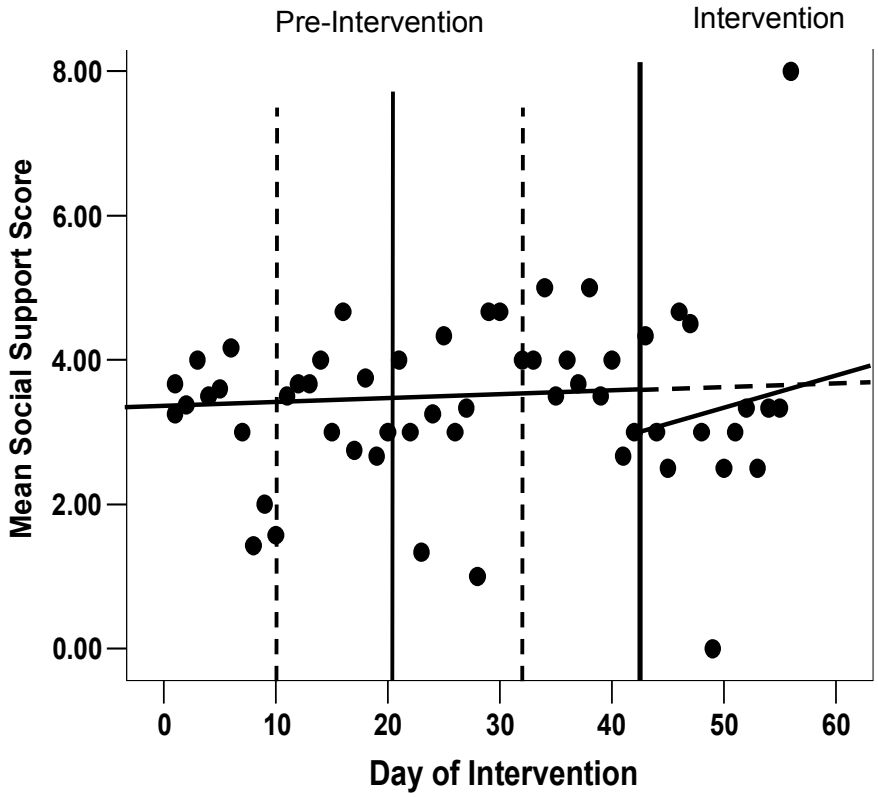


Figure 30. Split-Middle Graph of Group Mean Social Support Across Intervention

Figure 30 shows that the group's perceived level of social support was very gradually rising during the pre-intervention phase. The first diary recording following the session on social support was related to a slight drop in the group's mean coping effectiveness, followed by an increase in reported level of social support experienced

by the participants Their average score in both the pre-intervention and intervention phases was approximately 3.40, which indicates that participants were ticking, on average, four people they could count on for support if they needed it. The binomial test revealed a non-significant change in slope and trend following the intervention, therefore no significant intervention effect was found; the ratio of data points above and below the celeration line did not differ significantly from the expected 50:50 ratio. In order to test for a significant difference between the mean pre-intervention phase score and mean intervention phase score, a *t*-test was performed and found no significant difference, between the pre-intervention mean of 3.41 (*SD* = 0.94), and the intervention mean of 3.43 (*SD* = 1.74), *t* (54) = 1.14, *p* = .260.

Optimism for the coming day. Optimism was taught at the mid-point of the BRAVO intervention. The pre-intervention phase therefore consisted of 28 data points and the intervention phase consisted of 28 data points. The group's mean scores across the entire intervention are plotted on Figure 31, which has had the split-middle technique applied to it. Significant autocorrelation was found in the loneliness data; therefore the data created by using an ARIMA model was used.

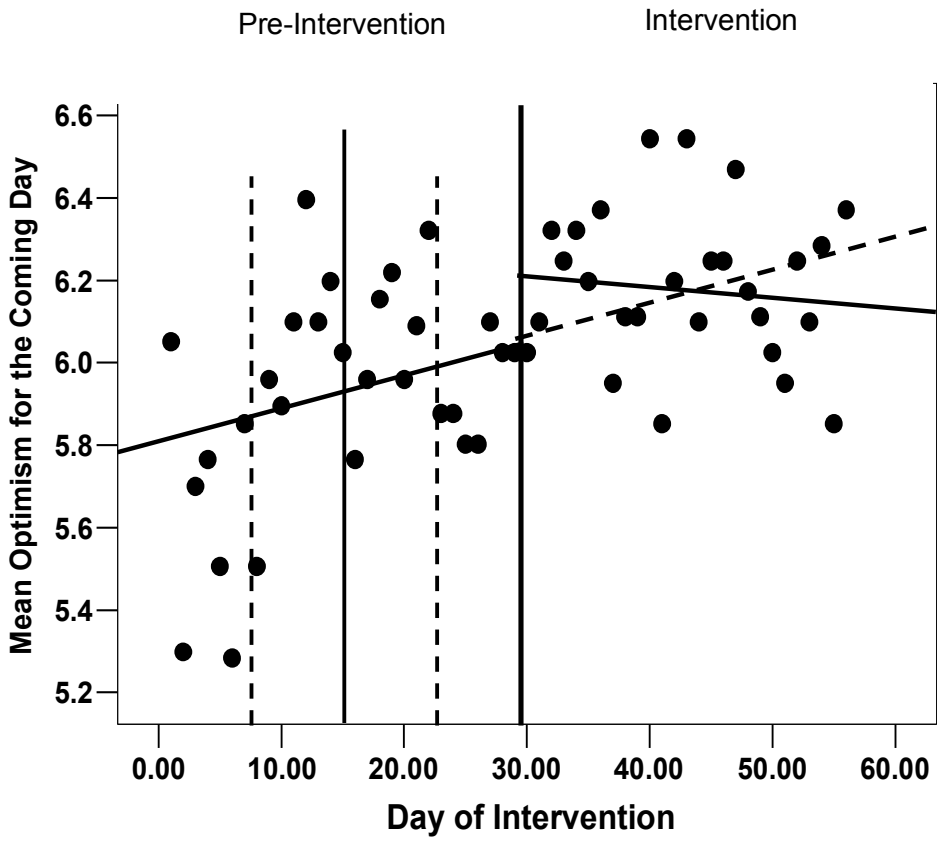


Figure 31. Split-Middle Graph of Group Mean Optimism for the Coming Day Across Intervention

Figure 31 shows that the group's optimism about the following day was steadily rising during the pre-intervention phase. The first diary recording following the session on social support lead to an increase in the group's mean optimism, followed by a very slight decline across the rest of the intervention period. Their average score for the pre-intervention phase was approximately 5.9, while in the intervention phase, the average score was approximately 6.2, which indicates that participants were rating their optimism for the coming day as being "good". The binomial test revealed a non-significant change in slope and trend following the intervention, therefore no significant intervention effect was found; the ratio of data points above and below the celeration line did not differ significantly from the expected 50:50 ratio. However, when a *t*-test was conducted to test for a significant difference between the mean pre-intervention phase score and mean intervention phase score, a significant difference between the pre-intervention mean of 5.92 (*SD* = 0.28) and the intervention mean of 6.18 (*SD* = 0.18) was found, t (54) = -4.28, p <.001, d = 1.14 (0.59, 1.70). This change in scores following intervention was in the desired direction.

Optimism for the future. As above, optimism was taught at the mid-point of the BRAVO intervention program. The pre-intervention phase therefore consisted of 28 data points and the intervention phase consisted of 28 data points. The group's mean scores across the entire intervention are plotted on Figure 32, which has had the split-middle technique applied to it. Significant autocorrelation was found in the loneliness data; therefore the data created by using an ARIMA model was used.

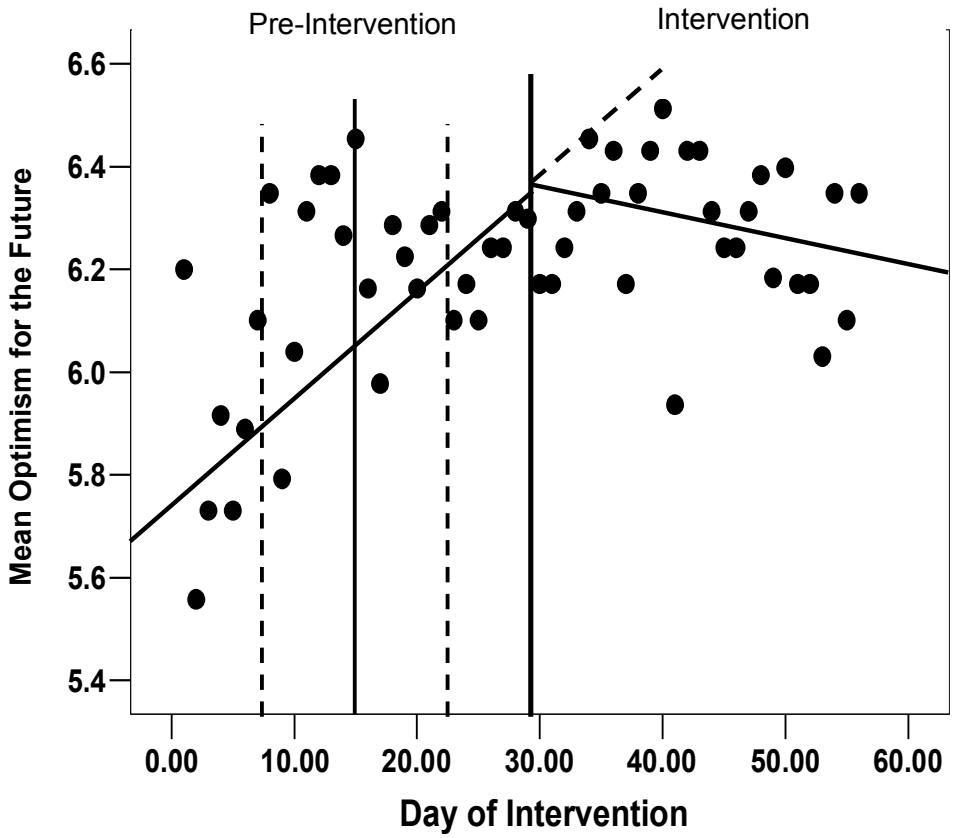


Figure 32. Split-Middle Graph of Group Mean Optimism for the Future Across Intervention

Figure 32 shows that the group's optimism for their futures was steeply increasing over the pre-intervention phase. Following the intervention session where information about optimism was introduced, the group's mean score gradually decreased. However, their average score in the pre-intervention and intervention phases was around the 6.2 mark, indicating that participants were, on average, rating their feelings about their futures as "good" on the daily diary. The binomial test revealed a significant change in slope and trend following the intervention (p <.001), therefore a significant intervention effect was found; the ratio of data points above and below the celeration line differed significantly from the expected 50:50 ratio. In this case, there were significantly more data points below the celeration line, indicating that if intervention had not taken place, participants' optimism would have continued to rise rapidly. However, when a *t*-test was performed to test for differences between the pre-intervention and intervention phase scores, a significant difference was found between the pre-intervention mean of 6.13 (SD = 0.23), and the intervention mean of 6.28 (SD = 0.14), t (54) = -3.03, p = .004, d = 0.81 (0.26, 1.35), indicating a significant increase in mean optimism following intervention with the BRAVO program., which is movement in the desired direction.

Social status. Strategies to try to increase the participants' social status at school were taught on day 8 of the BRAVO intervention program. The pre-intervention phase therefore consisted of 7 data points and the intervention phase consisted of 49 data points. The group's mean scores across the entire intervention are plotted on Figure 33, which has had the split-middle technique applied to it. Significant autocorrelation was found in the loneliness data, therefore the data created by using an ARIMA model was used.

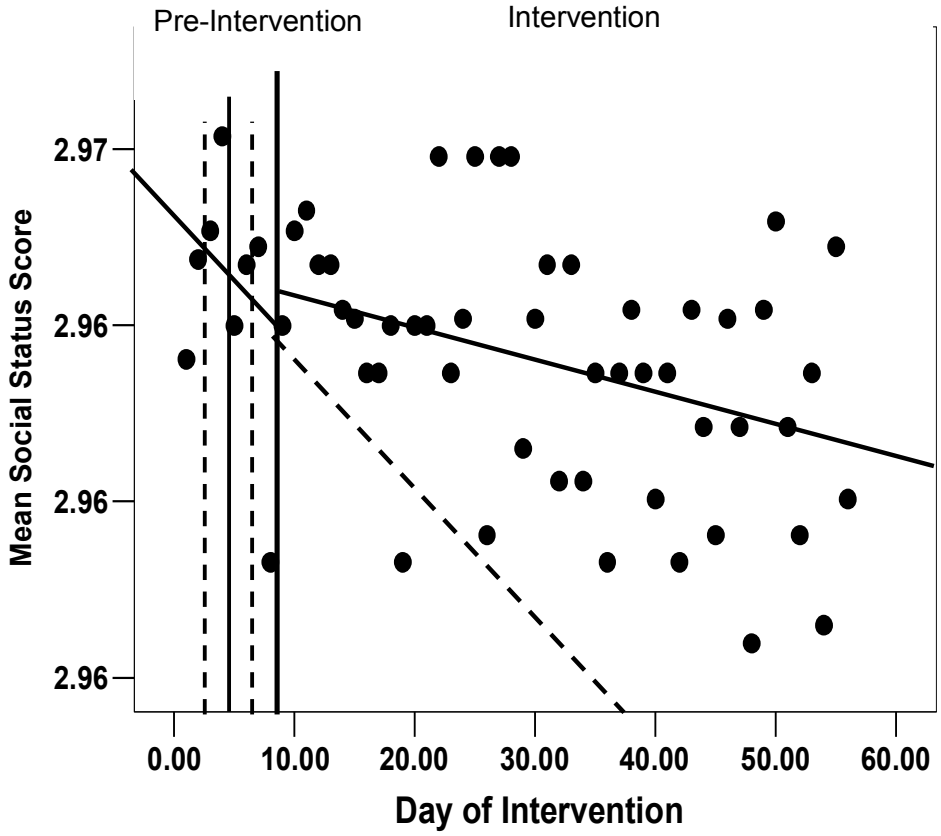


Figure 33. Split-Middle Graph of Group Mean Social Status for the Future Across Intervention

Figure 33 shows that the group's social status at school was steadily declining over the pre-intervention phase. Following intervention the group's mean score continued to decrease, but not at the same rate as it was in the pre-intervention phase. Their average score in both the pre-intervention and the intervention phases was approximately 2.9, indicating that participants were, on average, reporting that they were playing and having lunch and recess "with a couple of other people." The binomial test revealed a significant change in slope and trend following the intervention (p <.001), therefore a significant intervention effect was found; the ratio of data points above and below the celeration line differed significantly from the expected 50:50 ratio. In this case, there were significantly more data points above

the celeration line, indicating that if intervention had not taken place, participants' social status would have been significantly lower. However, when a *t*-test was performed to test for differences between the pre-intervention and intervention phase scores, a significant difference was found between the pre-intervention mean of 6.97 (*SD* = 0.01), and the intervention mean of 6.96 (*SD* = 0.01), *t* (54) = 2.24, *p* = .029, *d* = 0.90 (0.10, 1.71)., which is not the direction of change that was desired.

Summary of daily diary data. The daily diary data represented the groups mean scores on each of the 11 variables over the 56 days of the BRAVO program. The data was analysed using both the split-middle technique (including a binomial test) and a series of *t*-tests to assess for changes between the pre-intervention and intervention phases. The analysis of this data revealed significant results in approximately half of the variables. With regard to the binomial tests, only the social status results showed significant change in the desired direction. All other variables showed either an undesirable change or no change at all.

With regard to the *t*-test results, the majority of variables showed no significant change from the pre-intervention phase to the intervention phase. Two variables – productive coping and social status – experienced significant changes in the undesired direction, both showing decreases following intervention. However, three variables – loneliness, optimism for the coming day and optimism for the future – showed significant improvements following intervention. A general trend could be seen in the 11 variables, where improvements were seen during the pre-intervention phases, before the skill or attitude had been targeted specifically in the program.

Qualitative Data

In order to further explore the experiences of the participants regarding bullying, the information provided in the interviews will now be presented. This provides additional depth to the previously reported quantitative data.

Interviews

Below is a list of the ten questions asked during the interviews.

1. What sorts of bullying are you experiencing at school?
2. How often is it occurring?
3. When is it occurring?
4. Why do you think it happens to you?
5. How does it make you feel – during it and after it?
6. What are you thinking – when it happens and after it happens?
7. What sort of things to you do to cope with being bullied?

8. What do you think about the person or people who bully you?
9. Do you think being bullied affects you more then other students who get bullied? If so, why do you think that is?
10. Do you think you will always experience bullying?

The results of the qualitative analysis of the interview transcripts are presented in categories (based on the questions asked in the interviews). During the analysis using Nvivo 7, the categories evolved into the following:

Category 1 – Types of bullying being experienced

Category 2 – Frequency of the bullying

Category 3 – Time of bullying occurring

Category 4 – Reasons for bullying occurring

Category 5 – Feelings about being bullied

Category 6 – Thoughts about being bullied

Category 7 – Ways of coping with the bullying

Category 8 – Opinions of bullies

Category 9 – Reactions to the bullying

Category 10 – Reasons for the bullying stopping/ceasing

Within each category, the common themes that emerged are reported. Each category will now be discussed in turn.

Category 1: Types of bullying being experienced. The first category to be discussed emerged from the participants' personal experiences of bullying at their particular schools. It was an important category to cover as it helped gain an understanding of how types of bullying vary across genders and school types. All of the themes that emerged have been seen previously in the research of the different types of bullying that occurs in schools (e.g., Baldry & Farrington, 1999; Rivers & Smith, 1994; Whitney & Smith, 1993). The following themes are listed in terms of their type: direct and physical, direct and verbal, and indirect.

Theme 1 – Direct and physical bullying.

Seven of the ten participants reported experiencing some form of physical bullying. Most of this involved direct physical contact with the bully, such as being hit, kicked, tripped over, or pushed. Some examples of direct physical bullying included:

> Participant 2: Um, well, "M" is probably the main bully, because now I've actually got a personal space issue. Because whenever he bumps up against me, it's like he glues to me and he keeps bumping up against me and he keeps brushing past me. Sometimes he even likes pushes my arm or

something like that. He bumps up against me, and pushes me and pinches me. And this other time this guy came up and pushed me right here [indicates her sternum].

Participant 9: Um, I was getting pushed into lockers and getting my head slammed into things and stuff like that. I've been pushed into a locker and that hurt, but I still stood up and walked to the sick bay and everything so, that was really painful because it went in about that far [indicates approximately one centimeter], and it was only that big [indicates approximately two centimeters across]. That's how far I got pushed into the lockers. And he kept sitting on me after I was hurt.

Participant 10: Like, they'll like put their foot out or they'll just like elbow or um, like punch me or um, it was my birthday and they came over and go "birthday punches" and I'm like "no" and their version of no means yes, type thing.

The participants, both male and female, appeared to experience quite a lot of, and quite varied types of, physical bullying. It ranged from hitting and kicking, to having things thrown at them, and having their property damaged or stolen by the bullies.

Theme 2 – Direct and verbal bullying.

All ten participants reported some form of direct and verbal bullying. Most of this was described as being 'teased', 'picked on', or 'laughed at.' One female described her bullying as being sexual harassment. Some examples of the direct verbal bullying included:

Participant 2: I get teased and picked on. Laughed at, because I'm laughed at a lot by "M" and his friend "C". Um, one time I was threatened, but that was only one time on the bus. Um, yeah, those types of things.

Participant 6: I hang around with some of the boys in my form and I know I get laughed at about that because I'm hanging around with boys sometimes. Like once, like these boys last year and if, like once one just walked past and started laughing at me.

Participant 7: I'm being sexually harassed. Yeah, by like the boys like making sexual comments that I don't need. I haven't seen anyone else get sexually harassed. Um, mostly doing it to me but I have noticed that they have done it once or twice to another girl, but yeah.

Participant 8: I get called names that I don't want to be called – that I really don't want to, and it's done repetitively.

Again, both males and females were experiencing direct verbal bullying. Many of them described this sort of bullying as being 'hassled' or 'harassed.' In fact, being hassled or harassed was the second most frequently mentioned type of bullying after being 'teased' or 'picked on.' It appears that the participants mostly described the bullying that they experienced in vague terms, rather than describing them in specific terms.

Theme 3 – Indirect bullying.

The last type of bullying explored was indirect bullying. Only four of the participants described some type of indirect bullying. In two of these cases, the indirect bullying took the form of being left out or excluded. One case involved having nasty rumours spread about the participant and things said 'behind their backs'. The final example was a case of an invasion of a person's privacy. Four examples are included below:

> Participant 1: There's some leaving out. Some excluding from groups. Like all the people in my class have decided to form into three person, or two person or four person, and I'm the one who's left out of all the groups. So it's like, when I have to find a partner, and they're all partnered up and I'm like "oh."
>
> Participant 5: Um, I've been left out a lot. That was a couple of weeks ago, and I thought they were my friends.
>
> Participant 6: I'd get given the silent treatment and people saying stuff about me behind my back and that would all come back to me. …a couple of times I've actually had people bitching about me behind my back and saying mean things.
>
> Participant 10: Um, at the start of the year, Luke wanted my number and I thought "oh, okay." So I gave him my number and he started to like call me and stuff and like we're like friends and stuff and then we became the class reps. Um, a month and like a week afterwards, um, he started to change sides a bit and um, I didn't like it. He started giving my number out, um, I got death threats, crank calls, we went to the police, the police went to Luke's house because it's an out of school matter, um although some of it's happening in school, um it's classified as out of school. So um, that happened, so um, we had to call and change my number to a different one.

The indirect bullying (6 references) was not mentioned as frequently as the other types of bullying (direct physical [7 references] and direct verbal [21 references]), and appeared to be happening more to the female participants than the

male participants. It was interesting to see that even though schools are currently making more concerted efforts to combat bullying than probably ever before, the direct (and potentially far more obvious) types of bullying were the types still being reported as occurring the most.

Gender comparisons.

When comparing the genders on the type of bullying that they were experiencing, male and female participants responded in quite different ways. Table 16 shows how many references each gender made to the different types of bullying.

Table 16

Number of References for Types of Bullying by Gender

	Male	Female
Name calling, teasing or picking on	4	5
Harassing or hassling	1	5
Kicking, punching or pushing	2	3
Laughed at	1	2
Leaving out or excluding	1	2
Gossiping or spreading lies	0	2
Property damaged	1	1
Threatened	0	2
Privacy invaded	0	1
Sexually harassed	0	1

Table 16 shows that name calling, teasing, and picking on were the most frequently reported type of bullying, followed by harassing and hassling. Direct verbal types of bullying were made reference to three times more than either direct physical or indirect bullying for both of the sexes.

Category 2: Frequency of the bullying. Nearly all of the participants reported having experienced more frequent bullying in the past, while currently experiencing somewhat less intense bullying. The frequency of bullying ranged from once or twice in any given term, to happening “pretty much every minute” (Participant 3). Below are some descriptions of how frequently the participants were experiencing bullying at school.

> Participant 1: There was always like… People bully each other mildly most days anyway. Like, even I might make fun of someone until it gets not funny anymore. It’s about fifty, fifty though. One day’s good then the next day’s not. Or two days on and then two days off.
>
> Participant 3: It used to be like every day. Every single day, pretty much every minute. Um, it’s not happening as much. It’s probably only now like once a

day. Probably only now once or twice a term there'll be something really bad happen.

Participant 4: Well it's stopped now, but it happened heaps of times and yeah. About five times a week. That happened in term two and it's never happened again.

Participant 6: No, it doesn't happen every day, it was more every day last year, but um, I've moved forms this year and now the people who were bullying me last year are in middle school now and I'm still in junior school, so we're in completely different parts of the school, so I don't see them as often. Um, but more it's, it might happen about once a week maybe, but as I said, even if just one little thing is said, then it'll have an impact.

Participant 8: About five times a day. It kind of happens a lot in the morning – I'll have it like twice. In the afternoon I'll have it once. Um, that's at recess, and at lunch I'll have it once, and at break I'll have it once.

Again, there was quite a bit of variance in the frequency of bullying being experienced by the participants. Some were currently experiencing extremely high frequency levels of bullying, while others who had previously experienced high frequency levels of bullying, were now experiencing bullying far less frequently.

Gender comparisons.

When comparing the genders on the frequency with which they are being bullied, male and female participants responded in quite different ways. Table 17 shows how many references each gender made to the different frequencies of being bullied.

Table 17

Number of References for Frequency by Gender

	Male	Female
Once or twice a term	0	2
Once a week	0	2
Every second day	1	0
Once or twice a day	2	3
A lot every day	1	3

Table 17 shows that females were reporting that they were being bullied far more frequently than the male participants. The reason that there are more references to frequency than there are participants, is that some participants reported on both past and current frequency of bullying. Participants were reporting that they

were being bullied either “once or twice a day”, or “a lot every day”, more often than they were reporting the less frequent bullying descriptors.

***Category 3 – Time of bullying occurring*.** Previous research has shown that bullying is most likely to occur in the playground (i.e., during recess and lunch breaks), although being bullied in the classroom was reported nearly as frequently. Generally, it has been a very small percentage of students who report being bullied either on their way to or from school (Whitney & Smith, 1993). The current research showed that participants were reporting being bullied at recess, lunch, and during class time in fairly equal numbers. The following are some examples of the times that participants reported being bullied at school.

> Participant 1: I have no friends in my class; all my friends are in different classes; I’ve got lots of friends in different classes. So at recess I’m hanging out with everyone and it’s all cool, but then in class time it’s not good.
>
> Participant 2: Interviewer: “So is it happening in class as well as at recess and lunch?” Participant 2: Yeah, but he works around the teacher. Every time the teacher looks at him he stops. But when the teacher’s over the other side of the room, he’s at his worst.
>
> Participant 8: Recess, lunch, and during class. It kind of happens a lot in the morning – I’ll have it like twice. In the afternoon I’ll have it once. Um, that’s at recess, and at lunch I’ll have it once, and at break I’ll have it once. I’m usually by myself. If I’m about to go out [side] then they’ll get me then. But in class it’s usually silent motions.

Those students whose bullies were in the same class as them reported the most bullying occurring during class time. During recess and lunch, those participants who had friends in other classes did not appear to be as vulnerable as they were during class time. For the participants who did not have bullies in their class, they reported being able to relax and concentrate during class, as they were not being victimised, or expecting to be victimised during that time.

Gender comparisons.

When comparing the genders on the time that they were being bullied, male and female participants responded in quite similar ways. Table 18 shows how many references each gender made to the different times that bullying was occurring.

Table 18

Number of References to Time of Bullying by Gender

	Male	Female
Before school	1	0
During class time	2	3
Recess	2	3
Lunch	3	3

As can be seen in Table 18, males and females made the same number of references to being bullied at lunch time, and similar number of references to being bullied during recess and class time. Only one male reported being bullied before school.

Category 4: Reasons for bullying occurring. When participants were asked why they thought that the bullying was occurring, their answers could be clearly defined as either pertaining directly to themselves (the victim), or directly to the perpetrator of the bullying.

Theme 1 – Reasons pertaining to the victim.

Some examples of reasons related to the victim included:

> Participant 1: I have no friends in my class; all my friends are in different classes. Yeah, people think "oh, look at that guy, he looks depressed, he's an easy target. Let's shoot insults at him until he gets more depressed."
>
> Participant 2: I'm different and I like to be myself. I don't like to be a sheep. I like to stick out. I like to be unique and people just find that as a threat. I don't know why. I think it's because they think I say weird things sometimes.
>
> Participant 3: Ok, this is my thing that I think everything revolves around. Okay, because I had this really, really good friend in prep, in grade one sorry, and um, we were really good friends, but everyone would want to hang out with her because she was like really small and I think that when you're taller, you don't fit your age thing and you don't look how you're meant to look and you're not exactly like a grade one or something. And I think that might be why like things, like I've been pushed out of the people group, with everyone talking, that I think that's like what happened. …Yeah, I hate my height. … Um, just by their looks. I mean because people hate me because I know I'm over weight and all that, and my curly hair, they hate my curly hair. Like all the pretty girls have straight, blonde hair and are like twigs and yeah. One of the other boys who was getting bullied, he was um, he had orange hair and no one else had orange hair, and he got bullied a lot.

Participant 4: It was probably my name and all, or it's about the weight or something like that.

Participant 5: Um, I get bullied about my hair. And, um, at this party, they don't like this other girl named "G" they all went like – because she has naturally red hair, so they always go like "Oh, it's like a bright light." And they always discourage her about the colour of her hair. Because, I don't know. I've been told that you go through life and there's a sign on your head saying "I can get bullied."

Participant 6: Well, last year it was more of a bigger problem, because I got my hair cut really, really short, last year and um, yeah. Sort of like my Mum's; maybe just a tad longer maybe. Um, and I got it cut because I saw one that I really liked and said "oh Mum, I want a change. I want this." So I got it done a couple of weeks later and I got to school and it was just, um, I started getting bullied for it and got like um, nasty comments and um, facial expressions put at me and stuff thrown at me, and um, I'd get given the silent treatment and people saying stuff about me behind my back and that would all come back to me and um, then there were these year eight guys who were saying all these mean things to me and they'd do that for ages and ages.

Participant 7: Probably because I'm a bit older than the other people and I don't really have any friends in the class.

Participant 8: First impressions, probably, because sometimes they'll make comments about my hair, and my voice. Um, because, as soon as I talk, people make fun of my voice. Um, whenever I wore something on casual day, they would always make fun of me. And like, once I said what my name meant in Mexican, which is orange, so they called me "J" Orange, and, yeah, I really didn't like it.

Participant 9: Oh, it's just because everyone reckons that they have to be in one way, but I'm different to other people and I go with what I want to be with. I don't want to be like everyone else. I just want to be different.

Participant 10: Um, they can probably sense that I am confident and I try to be happy. And um, because I show like lots of pride and stuff in myself and in my stuff, like they know like because I look after my shoes, myself, my hair, my everything, like everything, like I'm well presented. Um, my locker's very tidy, my desk, like I'm very, yeah.

It was interesting to note that when asked why the bullying was occurring, all but one of the participants initially responded with something to do with themselves: their looks, their lack of friends, their uniqueness.

Theme 2 – Reasons pertaining to the bully.

When asked more generally why they thought the bullies were bullying people, they had the following to say:

> Participant 1: Some people who are bullying are being hurtful and it seems like fun but it's not. They're mean and they're depressed themselves, and they just have something with their heads, or they are, like, have their own problems at home and they are probably just like problemed. Like even more problemed than me. And they need to take out their problems on me.
>
> Participant 2: I don't know why they do it. They enjoy it or something. I don't know what they get out of it and I've asked my Dad constantly "what do bullies get out of bullying? Like why is it so enjoyable?" There's "M" my friend, he's bullied badly, and that's probably why he started being mean to me.
>
> Participant 5: Yeah, and she's really pretty as well, so it's like she can get away with anything, which is really annoying.
>
> Participant 6: I think "well, yeah, they're doing that to either look good or just to fit in" because half the time people do it because they want to hang around with people who won't let you in if you don't do things like that. Um, and that's half the problem; sometimes they might feel pressured to do that and if people pull faces at me and throw stuff at me to fit and to feel good. They just might be doing that to fit in and they think that's the good way to go, but it's not, it's the worst way you can go.
>
> Participant 8: Um, they didn't have much friends when they were younger and they bully people to try to be cool. Ah huh, but they shouldn't be doing it; they shouldn't be getting away with it.
>
> Participant 9: People just reckon that you have to be like, like everyone else. I just go "you are just trying to hurt them because of the way you feel, or you're just being a total jerk and you're trying to act cool in front of other people", which isn't the right way to go about things, because if you do that, well, you're never going to get anywhere in your future. Because they reckon I'm weak, but they don't know how I can be when I'm either angry or like depressed or anything. They haven't seen me angry or frustrated or anything.

Participant 10: Because they're like not happy, they want to bring me down too. Some of them get bullied themselves. Like "L" gets bullied himself and then "J" gets picked on too. Um, I know Justin comes from a bad family, they use bad language and obviously that backfires on him, for him to do that.

Gender comparisons.

When comparing the genders on their reasons for the bullying occurring, male and female participants responded in quite different ways to some reasons, and quite similarly on other reasons. Table 19 shows how many references each gender made to the different proposed reasons that the bullying was occurring.

Table 19

Number of References to Possible Reasons for Bullying by Gender

	Male	Female
Seems like fun, amusing or enjoyable	1	4
Being different or unique	2	2
Looking physically different to peers	2	2
Are bullied themselves	2	1
Being by yourself or considered an easy target	2	1
No friends	1	2
To by hurtful and make victim unhappy	1	2
To look good and fit in	2	1
Can get away with it	0	1
Looking depressed or sad	1	0
To entertain others	1	0

As can be seen in Table 19, four times more females than males attributed the bullying to the fact that the bully found it fun, amusing, or enjoyable. For all the other proposed reasons, males and females answered in a very similar fashion.

Category 5: Feelings about being bullied. Participants reported a number of different emotions, as well as mixtures of different feelings, relating to their bullying experiences. Some of the participants had difficulty distinguishing between feelings and thoughts, and would describe their emotional response in terms of the thoughts that they were experiencing at the time. After clarification by the researcher, all participants were able to clearly state how the bullying had made them feel. The feelings that they reported were all ones that had been reported on in the previous research (mostly anecdotally). The following themes are reported in order of most frequently reported by participants, to least mentioned.

Theme 1 – Angry.

Anger was a recurring theme amongst the majority of the participants. Below are some examples of their feelings of anger toward both the bully and the bullying situation.

Participant 1: It matters on what the type of bullying is, but I mean, if there is any physical bullying, I feel quite adrenalined up and angry and I'll come home and smash something. But if it's verbal bullying, like, I might even accidentally, not purposefully, but sometimes I take a bit out on my parents. So, if I'm not feeling very good and they say "go and tidy your room, it looks like a bomb went off in there", and I'm like "no, go away, no, no."

Participant 2: I'm quite angry with it actually and, like I try to ignore them. At the same time I feel angry at them for actually getting into bullying in the first place.

Participant 6: And then if I found out that someone's said something about me behind my back I feel angry. I'll feel angry because someone's, you know, just doing that for no apparent reason.

Participant 9: Well, it actually kind of helps me in a way because it gets rid of my anger and that because like, if I'm angry before they bully me, I'm angry and then they bully me, it just goes, so it helps in a way.

Theme 2 – Sad, upset, or unhappy.

The second most frequent response from participants about how the bullying had made them feel was being sad or unhappy. This, like anger, has previously been anecdotally reported as a typical emotional response to bullying. The following are examples from the participants' interviews.

Participant 1: Then I'm all sad. And then I behave sadly. And then it's like "oh, he's an easy target. Let's bully him." And then I'm like all sad.

Participant 3: Um, I was really upset and like some days I didn't want to go to school and it was like really upsetting for me.

Participant 6: As with me I just get, you know, I get um, it makes me feel really upset and I don't know, sometimes I want to let it out, but I keep it in, to myself more, but the problem with me is um, I show it; if I'm really hurt, I can't hide it; it's written all over my face, and my facial expression is really sad and my friends can always tell, and they're forever asking me "oh, what's wrong, like are you okay?" and I just say "yeah, I'm okay, nothing's wrong" but there is something wrong it's just that I can't tell them; it's really hard. …I was really

upset about it and a couple of nights later Mum said “oh you came home really sad on Monday night” I can’t actually remember when it was, “what was wrong? You looked really sad” and I was, I told her because she was getting really impatient and I was trying not to and I just burst into tears. … it sort of comes into me being upset or sad when I think “this has really affected me. I don’t feel happy about this”, like I’m sad.

The participants appeared to be using the term “upset” as a generic description for a combination of sad, unhappy, and other generally passive negative feelings. Some participants, more than others, were able to articulate the precise negative feelings that they were experiencing after being bullied, while others found it difficult to use any other description than just being “upset.”

Theme 3 – Frustrated.

The next major theme that emerged during the interviews was the feeling of being frustrated by the bullying situation(s). Two of the ten participants reported experiencing this emotion as a response to being bullied; in fact they reported it as their primary response to being bullied, and therefore made multiple references to it.

Participant 1: Interviewer: “So, when you say you take it out on your parents, what’s the emotion that you’re feeling that you’re then taking out on them?”
Participant 1: Frustration. It’s frustrating.

Participant 6: Well, it makes me feel frustrated, because I feel frustrated because I’m thinking “what have I done to you? I haven’t done anything to you. I haven’t said anything.” But immediately if something is said to me I feel frustrated. I feel “why do they do that? Why do they say those things about me behind my back?” and yeah, like immediately I’ll just feel frustrated.

It appeared that the frustration occurred in the time following a bullying experience, as opposed to during an event. Once the participants had time to process what had happened, then they would feel frustrated. Similar to the emotional response of being angry, being frustrated seemed to result from the unjust nature of the bullying. Victims (participants) did not know or understand why the bullying was occurring or what they could do about the situation, which lead to their frustration.

Theme 4 – Annoyed.

Two of the participants made reference to feeling annoyed about what was occurring at school. Many of the participants made reference to the word annoying, but were using it in terms of the actually bullying behaviour; they were describing it as a type of bullying, if the bully was “annoying” them. Because this section is examining

the emotional *responses* to being bullied, it will only focus on those participants who reported "feeling annoyed" as an emotional reaction, rather than a behaviour.

> Participant 1: It's also annoying because you think like "ah, here's a day and no one's teasing me." But the day's going to end, so I'm still upset. It's frustrating and annoying and makes me angry.
>
> Participant 9: Nah, but when my cousin gets picked on, I start to get angry because he hasn't done anything. Just because he's got red hair, doesn't mean anything. And I get really annoyed with that.

Theme 5 – Mixed and other feelings (confused, disgusted, or embarrassed).

The remainder of the interview material about emotional responses was made up of victims reporting mixed feelings or feelings that were not reported by other victims (participants). Some examples can be seen below.

> Participant 2: Another thing I found out is that I had this like big breakdown, like I have those sometimes when I'm really being stressed lately and like I feel like I'm letting it out, but I don't let it all out, and then I just have this big breakdown where I'm all confused and everything and then I have like an hours talk with my Mum. … I mean, what happened with "B", I was sticking on with him and taking all of the crap that he threw at me because I was so desperate to have a friend. But I didn't want to go in with another group because I was scared of being ditched again. Because after that I joined another two person group, then those two people split up and I was stuck in the middle. And then they went off with different groups and I was a loner again. So, I was a bit scared of being ditched again.
>
> Participant 4: Interviewer: "What sorts of emotions did you go through when it was happening?" Participant 4: Um, embarrassed. Interviewer: "So you didn't want to go to school because you were afraid?" Participant 4: Yeah.
>
> Participant 5: I'm sad and angry. Interviewer: "Is that as it's actually happening, or when you go home or both?" Participant 5: Yeah, both. And I'm kind of confused, because I don't know why it's happening.
>
> Participant 6: Um, I'll never know for sure um, but I'm afraid that if it does get back to them, I'm really afraid that if it does get back to them that they'll just do it even more and they'll know that it's really affected me and I don't know if they'll stop and think "this is the wrong thing to do. We're just doing this and that wasn't nice", they'll go "oh, cool, it's really affected her, let's do it again. Let's say something else about her behind her back or call her a bitch to her

face" or something. Um, yeah, I don't want that to happen and it's funny because I was talking to um, when I was talking to my English teacher and coordinator, she said "oh, do you want me to talk to this girl, who's said these things to you?" and I said "oh no, actually I don't because if she finds out that I've spoken to you and that you're speaking to her because she knows how much it's affected me that after that she'll be like "oh, she talked to the coordinator; it's really bothered her, she's spoken to her about it, let's just say something else again"". Um, I'm afraid that's what will happen. I'm afraid that she'll say something else and I don't want that to happen.

Participant 7: Sort of disgusted in them for making such comments, but yeah.

Two of the participants reported being afraid or scared about the bullying happening again, or escalating to become even more severe. The participant, who was concerned about escalation, feared that if the bullies found out that she had spoken to a teacher, the situation would become worse. Many participants revealed that they had not reported their victimisation to any school staff. There were two main reasons behind this: 1) They were afraid that it would make the situation even worse, or 2) They believed that the teachers could not or would not do anything to help. This has interesting implications for school personnel; if students are not reporting the bullying incidents, then staff can not offer any assistance. Schools need to ensure that their students feel safe in reporting bullying incidents so that steps can be taken to address the issue.

Gender comparisons.

When comparing the genders on their emotional reactions to being bullied, there were some feelings where participants reported in an identical fashion and others where gender differences were seen. Table 20 shows the number of references each gender made to the different emotional responses.

Table 20

Number of References for Emotional Responses by Gender

	Male	Female
Angry	4	4
Sad or Unhappy	2	4
Upset	2	2
Annoyed	1	1
Frustrated	1	2
Disgusted	0	1
Confused	0	1
Embarrassed	1	0

As Table 20 shows, both genders made the same number of references to feeling angry, upset, or annoyed about being victimised. Females made twice as many references as males to the emotions *sad* or *unhappy* and to being *frustrated* because of the bullying that they were experiencing. Only females made reference to being disgusted or confused by the bullying, while only males made reference to being embarrassed.

***Category 6: Thoughts about being bullied*.** Several themes emerged when participants were asked what they were thinking, both at the time of the bullying, and also when they got home and had time to reflect on the experience. The major themes were: Questions, Suicidal thoughts, and General thoughts

Theme 1 – Questions.

The majority of the participants reported that the first thoughts to go through their heads were questions. Participants reported that they would ask themselves questions in an attempt to make sense of the situation. Below are some examples for the interviews.

> Participant 1: Why am I being excluded? Am I a bad person?
>
> Participant 6: Thoughts that go through my head, well, immediately I think "what have I done?" that's my immediate reaction in my head "what have I done?" and then I think "oh, I haven't said anything to you, why did you do that?" and I'll ask myself questions "okay, why have they done this to me? What have I done to them? Do they have something against me? What can I do to make them stop?" All those questions will immediately come into my head and I'll think them over, and I'll think them over, and I'll think them over. And, um, I don't know if those thoughts will ever change into actions because I just don't have the guts to go up to them and say "why did you do that to me?" I'll never be able to do that; that will never be able to be changed into an action, it's just a thought that I think. Um, and I don't know what, yeah, it's just, it's really hard because um, because it's affected me so much and it hurts me a lot that um, I just have a mixture of different thoughts and feelings, but a lot of them tend to be um, either questions or negatives and negatives like "oh gee, like I must be a person that they don't like." I don't know if they think I'm ugly or they think I'm annoying or irritating or something, but I just, it makes me feel like I'm a bad person if they do this to me, or that I'm a person that can't fit in or like "what do I have to do to make them stop that?" Yeah, like a lot of my thoughts will just be, you know, questions asking myself all these

different things. Um, I just, you know I don't, it's just a mixture. Like I ask myself so many different things, like why, what would the outcome be, why have they done this and I'm always thinking the same things over and over again whenever I find out someone's said something about me or if someone's said something to my face; I just ask myself all these questions, um, I don't ever write them down, I just keep them in there and they just keep revolving in my head all the time. … Like these boys last year and if, like once one just walked past and started laughing at me and threw something at me and I thought "I don't even know you. What did you do that for? I was just walking past. What have I done? Like that was just plain rude."

Participant 7: Why do they ask me such questions in the first place?

Participant 8: Why are they doing this? The simplest answer would be why are they doing this to me? Can't they pick on someone else for a while?

Participant 9: I just go "what's the use in doing that?"

Participant 10: I'm missing out on it or I can't hear or I can't remember because I'm so like "oh my God, why is this happening to me?" sort of thing.

Theme 2 – Suicidal thoughts.

Two of the female participants reported that they had previously experienced suicidal thoughts because of the bullying that they were enduring. Neither participant had attempted suicide, or made actual plans of suicide, but had thought about it. One of the male participants also spoke about not caring if the bullies tried to kill him.

Participant 3: At the time I seriously thought of having like, telling my Mum that I didn't want to live any more and I told her that, and yeah, and I told her that more than once or twice and she said to me, because like I said to her "I want to do suicide", like seriously, that's how bad it got for me and she was really upset because a few of her people that she worked with had done that, and yeah.

Participant 9: Like if they do hurt me, I don't care. I just stand up for what I believe in and I don't really care. If they want to try and kill me, they can try.

Participant 10: Sometimes I um, at a certain time I wanted to commit suicide and I used to keep saying it and saying it and saying it. And Mum was crying and she was just like "oh my God, what's happening?" and I'm like "well, what's the point?" type thing, but my Dad, I don't think he really loves me, I don't feel, like appreciated and respected for who I am. I feel that I have to go to school and put on like a mask type thing. Like because, and then

sometimes I just crack and sometimes I take off that mask, if you know what I mean.

Theme 3 – General thoughts.

This last theme is made up of all the responses that participants made that did not fit into the previous two themes. These are the initial responses that participants gave when asked what was going through their heads both at the time of the bullying and after the event.

Participant 1: That it's really pissing me off. That it was really annoying me.

Participant 3: I was thinking like good, bad, good, bad, like on and off. I was thinking "hopefully this will go away soon", and all the time I was thinking "God, this will never stop", and yeah.

Participant 4: And didn't want to go to school.

Participant 5: Um, I just want to hurt them or something.

Participant 7: I really don't want to go to school, but I still have to go anyway.

What was most interesting in the responses to being asked what thoughts they were having was that none of the participants gave positive responses. None of these particular victims were trying to be optimistic, or have positive thoughts about the situation. Their thinking patterns were negative, therefore, they were experiencing negative emotions and experiencing negative reactions to the bullying.

Gender comparisons.

When comparing the genders on the thoughts that they experience both during and after being bullied, there were some thoughts where participants reported in an identical fashion and others where gender differences were seen. Table 21 shows the number of references each gender made to different thoughts experienced.

Table 21

Number of References for Thoughts Experienced by Gender

	Male	Female
Why are they doing this?	2	2
Why is this happening to me?	1	2
I don't want to go to school	1	1
I want to commit suicide	0	2
I want to hurt them back	1	1
What can I do?	0	2
I don't want to live anymore	0	1
I hope this goes away soon	0	1
I must be stupid	1	0
Am I a bad person?	1	0
Will this ever stop?	0	1
What have I done wrong?	0	1
This is pissing me off and annoying me	1	0

As Table 21 shows, males and females were reporting quite similarly on the types of thoughts they were experiencing during and after being bullied. Thoughts that only female participants experienced included suicidal thoughts, asking themselves “what can I do?”, “will this ever stop?”, or “what have I done wrong?”, saying that they didn’t want to live anymore, and hoping that the bullying would go away. Some of these thoughts seemed productive, such as thinking about what they could do, but also seemed counter-productive, such as simply hoping that the bullying would soon end. As for the males, thoughts that they experienced and the females did not included questioning themselves (i.e., “I must be stupid”, and “Am I a bad person?”), and also thinking to themselves that the bullying was annoying them.

Category 7: Ways of coping with the bullying. The strategies that students were using to cope with the bullying could be divided into two themes: 1) Productive, and 2) Unproductive. Productive coping is when attempts are made to solve or rectify the situation, or how one is feeling about the situation, whereas unproductive coping is when strategies are used that do not attempt to solve the problem. Examples of each of these can be found in the following sections.

Theme 1 – Productive coping.

The productive coping that the participants described involved several strategies, including talking to others about it, seeking professional help, letting out emotions in an appropriate way, using humour, and relying on friends. Below are some example responses from the participants.

Participant 2: So I went home and talked to Dad about it and he said "just leave it. Be yourself still." …I'm all confused and everything and then I have like an hours talk with my Mum. … Not really, because I've had bullies all through my life or my school life at least, so like I can deal with it. Like I know not to show emotion in front of them and then when you get home, beat up something – something soft. …That's why I've got my punching stuff. I just go down there and punch, punch, punch, punch, kick. I'm not really that pent up with anger, but I just do it so it doesn't build up and so I can avoid the break downs as much as possible. … I like to use humour with it.

Participant 3: The teacher I've for my home room, she's really, really nice and she loves all the kids and like if I'm upset I'll go talk to her and we've also got this chaplain that I talk to sometimes, probably three times ever.

Participant 4: I just got a bit upset and talked a teacher and they, she sorted it out, and yeah. … Um, my Dad just talked through it with me and my Mum talked and yeah. … Yeah. Like today I was eating lunch on the primary school steps and they started coming and annoying and I just say "go away" and yeah. And they went and then they came back, so I just walked off. … Yeah, I've been to like a counsellor and he talks about the bullying as well.

Participant 5: Nah, because I just got to my friends and have a bit of time out and stuff. But if it's really bad, like this one time, then they'll all take me to my homeroom teacher.

Participant 6: I'm probably more likely to tell my sister than them, or my Mum and Dad. … When I was talking to my English teacher and coordinator, she said "oh, do you want me to talk to this girl, who's said these things to you?" … For some reason I just find it easier to write things down, um, rather than say it out loud. Well, um, I'm writing things down and when I started seeing the psychologist, I'm a lot happier, because um, as I said she's given me activities to do and she's um, she gave me this sheet and it said "oh, what am I feeling today?" um, and "what am I feeling right now?" um and there's another question and then it goes "oh, what can I do about this?" and that's just a journal entry I can do every few days. Um, and that's made me feel better because I can let out what I'm feeling and write down exactly how I'm feeling and if it's a negative one, how I can fix it and what I can do about it and that's one way I'm coping. And then another way I'm coping is, as you know, sticking with my friends and hanging with them and yeah, doing things that make me

feel happy, like tennis takes my mind off things and then dancing, I love dancing because heaps of my friends are there and everyone's nice to me and that's another thing that helps me cope. And, you know, being with my family also. And I can get up in the morning and go to school, I mean it's a drag but um, it's not, I'm not afraid to go to school, like I can cope and when I just think about the good things, that sorts of lifts my spirits a bit.

Participant 7: Um, I spoke to the school counsellor about it, but he hasn't really done anything about it. … Ignoring all the sounds around me and I just concentrate on my work, um, yeah.

Participant 8: Sometimes I'll tell the teacher, which will usually make them stop. Sometimes I'll tell them that what they're doing is wrong.

Participant 9: Nup, because they bully me and I think to myself "well, what's the use of holding anger, because I'll just turn out like them."

Theme 2 – Unproductive coping.

The unproductive coping that the participants described involved several strategies, including wishing for a miracle, ignoring or trying to forget about the situation, hoping the situation will change and the bullying will end, and crying. Below are some example responses from the participants.

Participant 1: Wish for a miracle. … Um, well, my Mum says I have a very powerful imagination and sometimes I just imagine myself into a world, where I'm one of the good guys and I'm fighting the bad guys. Then I can just forget about everything else. And then I go home and play x-box games.

Participant 2: I try to ignore them.

Participant 3: I was hoping every day that it was going to be different. … Um, probably crying was my biggest thing to help.

Participant 6: I don't know. I just keep it to myself.

Participant 8: I just ignore them.

Participant 10: And Mum and I are really looking into moving schools to a private school, where people, well they can deal with it, because obviously it's more posh. …Yeah, sometimes I just try to imagine like be somewhere else, like ignore it like, just I don't know like fairyland or something.

It was not asked whether these unproductive coping strategies were the first that the participants had used in response to the bullying, or if they were being used because all other, more productive, strategies had been exhausted.

Gender comparisons.

When the genders were compared on the thoughts that they experience both during and after being bullied, some thoughts were reported by both the genders, while others were independent for each of the genders. Table 22 shows the number of references each gender made to different thoughts experienced.

Table 22

Number of References to Ways of Coping by Gender

	Male	Female
Talk to a teacher	2	3
Ignore the bullying or pretend it isn't happening	1	2
Let out anger at home	1	2
Focus on the future	1	1
Talk to parent(s)	1	1
Use humour	1	1
Be with and rely on friends	0	1
Concentrate on school work	0	1
Crying	0	1
Hope it will be different	0	1
Talk to a professional	0	1
Talk to a sibling	0	1
Wish for a miracle	1	0
Write it down	0	1

Table 22 shows that the most frequent type of coping used was talking to a teacher – a productive form of coping. However, the second most frequent form of coping used could be construed as either productive or unproductive. Ignoring the bullying is often suggested to victims as a way to stop the bullying occurring. It is believed that if the bully is looking for a strong reaction from the victim, then if they ignore the bullying, it will stop. However, this could also be seen as an unproductive form of coping as it may not be considered a direct attempt to solve the problem.

Category 8: Opinions of bullies. Not surprisingly, the victims' (participants') opinions of their bullies were not particularly favourable. What was interesting was how reluctant some of the participants were to give their honest opinions of the bullies. Only after they were assured that their responses would remain anonymous, did they openly discuss what they thought about the people who bully them, and bullies in general.

> Participant 1: Some people who are bullying are being hurtful and it seems like fun but it's not. …They're stupid. They're mean and they're depressed themselves, and they just have something with their heads, or they are, like,

have their own problems at home and they are probably just like problemed. Like even more problemed than me. And they need to take out their problems on me and that's why they're so stupid.

Participant 2: I feel sorry for them. Because they get something out of bullying people and at the same time I feel angry at them for actually getting into bullying in the first place.

Participant 3: Um, the girls are like really bitchy, they'd try and like, they'd try and make you feel bad as well as someone else. …Yeah, the guy were probably more hurtful because like they like came up to me like every single day in primary school and they were going "oh yeah, so who's your friend? Who do you hang out with now?" And they'd always ask you those same questions, like because I had no one pretty much and it was like really hurtful to say "oh, I've got no one, I'm just hanging with myself." …Um, they're really hurtful and they made me think, um how much people need to take to get some amusement out of nothing.

Participant 4: Like really mean and not helpful and all that.

Participant 5: Yeah. And they're just like mean; they'll talk behind anyone's back about anything. …Um, they're bitches. They're just really, I don't know, mean. They don't know when to stop talking. And, yeah, they should just be nice.

Participant 6: Girls who have lots of friends and girls who think really highly of themselves and all that. … First I think "well, you're just lowering yourself to a lower level. You're not doing anything for yourself" and like, it's not just girls, it's guys too. Like these boys last year and if, like once one just walked past and started laughing at me and threw something at me and I thought "I don't even know you. What did you do that for? I was just walking past. What have I done? Like that was just plain rude." And um, I don't know what I think of them because I can't just give an opinion of them first off, but um, I just think, well the first thing I think is "you're just lowering yourself even further. You're not doing anything good for yourself. And you might not feel it now, but um, in the end you might just feel bad about what you've done or you might think "what I did today was a bit stupid. Why did I do that? I don't even know that girl. I don't even know that person. Like I might have seen them around before, like I know their face, but I don't know their name, I've never spoken to them before. I have no idea in the slightest who they are"." But still he just did that and um,

it's just random people but it's people who just did that, like the girl who's done that to me she's, well I just think "you're a bit of a stuck up person. And you just think too highly of yourself. And like, I don't know what to think about you, but if I am it's not really positive stuff, it's negative feelings" and like basically negative feelings sort of sum it up because if someone's bullying me I can't really think anything good about them at that time. It's a mixture of different things like "well, yeah, you're lowering yourself" or "you think very highly of yourself" or, you know, "what's your problem?", "do you have a problem with me?" and it just all comes down to asking myself questions again and yeah, just negative feelings basically.

Participant 7: That "they're so immature" …Yeah, they're definitely immature, they're so weird. …Um, "they're really stupid, they're so immature" and rah rah rah.

Participant 10: Because I'm not going to make myself feel uncomfortable for idiots who don't even have self-control. I mean, what person does not have self-control? …I'm not going to change my whole personality for idiots, who have no self-control.

Gender comparisons.

When comparing the genders on their opinions of the bullies, females made reference to a greater variety of negative opinions than the males did; however, only the females expressed sympathy towards the bullies, saying that they pitied them. Table 23 shows the number of references each gender made about different opinions of the bullies.

Table 23

Number of References to Opinions of Bullies by Gender

	Male	Female
Feel pity for the bullies	0	3
The girls are 'bitchy'	0	2
The guys are hurtful	0	1
They have their own problems at home	1	2
They're depressed themselves	1	0
They're immature	0	1
They're lowering themselves	1	2
They're mean	2	1
They're 'stuck up'	0	2
They're stupid	2	4

Table 23 shows that only the females broke down their opinions of bullies into what they thought of male and female bullies separately. Only one male out of the ten participants thought that the bullies were depressed themselves.

Category 9 – Reactions to the bullying. Similar to the section on coping strategies, the participants' responses to being bullied could be divided into two clear themes: 1) Positive reactions, and 2) Negative reactions. Positive reactions were those that would help prevent further escalation of the current situation, or help resolve to the situation. Negative reactions were those that would typically lead to an escalation in the current bullying, or provoke future bullying. Other negative reactions were simply the result of being bullied, for example, a drop in academic performance.

Theme 1 – Positive reactions.

Positive reactions included such things as walking away from the bully, laughing about the situation, looking on the bright side, standing up for oneself, and reporting the bullying to a teacher. Some examples of the positive reactions included:

> Participant 2: Another way I deal with bullying, like any physical bullying, that is when I do stand up for myself. People do not take advantage of me that easily, because I'm tough, I can stand up for myself. … And after a few days of that he's like "why are you being so mean to me?" and I'm like "me? Mean? Never." I like to use humour with it.
>
> Participant 3: I just walked in at that moment and I'm going "oh", so I just walked back out and told the teacher and yeah. The teacher came in and talked to her and she went out for the rest of the day, so yeah. … I realised this last year, when um, all the guys would come to me and go "oh, like you want to go out with me" and all that. And I'd keep on going "no, no, go away" and all that and so one day I said yes and I go "ok, you can pick me up at seven o'clock; we can go to the movies" and you know and he goes "oh" and I never heard from him again.
>
> Participant 4: Um, another friend that wasn't teasing me just said "let's go for a walk and get a drink" and all that. … Yeah. Like today I was eating lunch on the primary school steps and they started coming and annoying and I just say "go away" and yeah. And they went and then they came back, so I just walked off. And now, um, the teacher saw them and the teacher spoke to them and yeah, I don't know what she said though. … And, like sometimes when they were teasing me, I'd just laughed and walked off.
>
> Participant 6: I just walk away and I don't listen.

Participant 7: I've tried sitting with the girls, but sometimes they stick up for me and sometimes they don't.

Participant 8: Sometimes I'll laugh with them. … Walking away seems to work. … Sometimes I'll tell the teacher, which will usually make them stop. Sometimes I'll tell them that what they're doing is wrong.

Participant 9: I still stood my ground and just pushed him away and told him "why don't you just go away and just leave me alone? I'm not worth your time."

Participant 10: I've actually got him suspended like ten more times since that, and he actually brings it upon himself and he'll go "you got me suspended", but when he's actually done the wrong and I've just been innocent and reported it. … So I always just try and look on the bright side of things.

Theme 2 – Negative reactions.

Negative reactions included such reactions as avoiding school, bullying or fighting back, crying, self-harming, and losing their temper. Some examples of the negative reactions included:

Participant 1: But, I mean, I don't really make fun of people that much but like when someone teases me and I'm not feeling in a mood to be teased, I'll tease them back, until they don't feel like teasing me anymore, because I've teased them. … It matters on what the type of bullying is, but I mean, if there is any physical bullying, I feel quite adrenalined up and angry and I'll come home and smash something. But if it's verbal bullying, like, I might even accidentally, not purposefully, but sometimes I take a bit out on my parents. So, if I'm not feeling very good and they say "go and tidy your room, it looks like a bomb went off in there", and I'm like "no, go away, no, no."

Participant 2: Um, well Marcus is probably the main bully, because now I've actually got a personal space issue. He bumps up against me, and pushed me and pinches me and it's just given me real issues and I'm dealing with that now. … Another thing I found out is that I had this like big breakdown, like I have those sometimes when I'm really being stressed lately and like I feel like I'm letting it out, but I don't let it all out, and then I just have this big breakdown where I'm all confused and everything. … My grades have gone down compared to my last interim report. This interim report, in the 'work finished' section I got three no's, um, I got an 'of concern' for individual progress in SOSE and I got an in between 'of concern' and 'fine' in maths in individual progress. … I ignore it most of the time, but like sometimes when I feel like

they've insulted me majorly I correct them. … And I ended up like, after it, running out of the room. I didn't ever get a sorry for what happened and I had to say sorry to him and, like then I went to my class which was in the library and I hid in the corner and like, I was really, really crying.

Participant 3: Um, I was really upset and like some days I didn't want to go to school and it was like really upsetting for me. I don't know why but it was always bad every day and so I would always go home crying pretty much every night.

Participant 4: I just wanted to hit them. … Like, I wanted to just leave school and hit them and blame it on the teachers and all that.

Participant 5: Yeah, but I've never tried to cut. Yeah, I tried strangling myself. …I just want to hurt them.

Participant 6: Because of what was said to me last year and what has happened, I'm now more of a sensitive person, and even like the slightest little comments, they have an impact and that's just, I get hurt by that. … Sometimes I want to let it out, but I keep it in, to myself more. … "It's really bothered her, she's spoken to the coordinator about it, let's just say something else again". Um, I'm afraid that's what will happen. I'm afraid that she'll say something else and I don't want that to happen.

Participant 7: I sometimes lose my temper.

Participant 8: Sometimes I'll say nothing, sometimes I'll just walk away or something, or I'll even say "oh, just go away", and I'll talk back.

Participant 9: Um, I haven't been getting bullied lately, because someone tried to bully me and I got them to the ground and then said "leave me alone." … Oh, basically it happened every day, but I just put up with it and left it, until they pushed me over the edge and I got him to the ground.

Participant 10: Sometime I'll ignore it, sometimes I'll say something back, or something and, often I go home and cry and cry and cry. Like I'll just be banging myself into walls type of thing and like I'll be screaming or yelling, I'll be blaming myself sometime and I'll start to use some bad language. I'll um, yeah just crap. … Yeah, I'll cry and run out of the classroom. … My academic is actually going down because I can't um, concentrate in the class because it's so noisy and because it's so hectic, because I have to run out because I can't trust people to look after my books.

Participants were reporting far more negative reactions to the bullying than positive ones.

Gender comparisons.

When comparing the genders on their different reactions to being bullied, females made reference to a greater variety of reactions than the males did. Table 24 shows the number of references each gender made about different reactions to being bullied.

Table 24

Number of references to Different Reactions to Bullying by Gender

	Male	Female
Avoid school	2	2
Become more sensitive	0	2
Fear reoccurrence	1	2
Feel sorry for oneself	1	1
Drop in academic grades	1	2
Ignore it	1	4
Bully or fight back	3	1
Keep it to oneself	0	1
Laugh or look on the bright side	1	1
Lose temper	1	2
Report it	0	2
Self harm	0	2
Stand up for oneself	3	3
Walk or run away	2	4

Table 24 shows that female participant were far more likely to become more sensitive after being bullied, try to ignore the situation, self-harm, report the bullying, or run or walk away compared with the male participants; however, the male participants were more likely to bully or fight back as a reaction to being victimised. One of the most referred to reactions was standing up for oneself, which the male and female participants made equal number of references to.

Category 10 – Reasons for the bullying stopping or ceasing. Some participants reported that the bullying that they were experiencing was not as severe as it had been in the past. If they indicated this, then they were asked to speculate why the bullying had decreased or stopped. They were also asked to speculate why each bullying event ended. Toward the end of each interview, participants were also asked if they thought that they would always experience bullying. Some responded with optimism – that the bullying would come to an end, while others responded in a

more pessimistic fashion, believing that they would always experience bullying in their lives. Below are some of the example responses.

> Participant 1: There was always like… People bully each other mildly most days anyway. Like, even I might make fun of someone until it gets not funny anymore. But, I mean, I don't really make fun of people that much but like when someone teases me and I'm not feeling in a mood to be teased, I'll tease them back, until they don't feel like teasing me anymore, because I've teased them. But that's not every day – I try not to tease other people. … And then the next morning, it starts again, and then it stops for some strange reason, because they can't be bothered. And then there's all these different reasons which the sometimes stop.
>
> Participant 3: Because I'm having fun more, like when you have fun you're more… Interviewer: Bubbly? Participant 3: Yeah … Everyone just like, bang, and they'd be bullying me and then they'd stop for the rest of the day because they knew that they had hurt you enough and that would be fine for the whole day. And then um, then like they'd know and then that got me upset so I just stay alone because like everyone would run off and stuff. … Yeah, she was sticking up for me. ... Um, I don't know. Just be my bubbly self.
>
> Participant 4: Um, like they, because they were standing up for me.
>
> Participant 6: Um, well, I'm hoping that by next year that people will start, because they're moving up into middle school, a lot of people who say things to me and pull faces and all that are moving up into middle school and they might start, you know, growing up a bit.
>
> Participant 9: Um, I haven't been getting bullied lately, because someone tried to bully me and I got them to the ground and then said "leave me alone."

Gender comparisons.

When comparing the genders on their proposed reasons for why the bullying stopped, not all the participants could think of a reason why a bullying episode would stop. Table 25 shows the number of references each gender made about different opinions of the bullies.

Table 25

Number of References to Different Reasons for the Bullying Stopping by Gender

	Male	Female
Friends sticking up for victim	0	2
They can't be bothered	1	0
Victim being more outgoing	0	1
Victim being 'themselves'	0	1
Victim having fun	0	1
When the victim fights back	1	0
When they've hurt the victim 'enough'	0	1

Table 25 shows that male and female responses were completely independent; there was no overlap between the sexes on any of the proposed reasons why bullying would stop. It was only male participants who said that the bullying stops “when the victim fights back,” and it was only males that reported fighting or bullying back as a reaction in the above section. It was only females who indicated that the bullying stopped because of positive actions on the victim’s part; for example, when the victim appears to be having fun and ‘being themselves.’

Summary of qualitative analysis. Ten major categories emerged from the qualitative interview data. Within some of these categories, further themes became apparent. Male and female participants answered in a similar fashion in some categories, and quite independently in other categories. The first category involved exploring the types of bullying experienced by the participants. Males and females both reported experiencing physical bullying while females reported more indirect bullying than males. The indirect types of bullying were reported less frequently than the more direct types. Many of the participants used non-specific terminology when describing their bullying experiences.

The second major category explored the frequency with which these particular victims were being bullied. What became evident was there was large variance in the amount of bullying that the participants were experiencing. Some reported extremely frequent bullying, with multiple experiencing each day, while other participants reported that they were experiencing next to no bullying. The time at which bullying was occurring was also investigated. Most of the bullying was reportedly occurring during class time, and at recess and lunch times. The time and place that bullying was occurring seemed somewhat dependent on whether victims had friends in their class or only in other classes.

Participants were asked to give reasons why they thought that they were the targets of bullies. Their reasons either related to themselves, or to the bullies. Reasons pertaining to themselves included such things as their physical appearance, their number of (or lack of) friends, and any quality that would make them unique in some way. Reasons pertaining to the bullies included that the bully actually enjoyed hurting and upsetting others, they were being bullied themselves, or that they were bullying as a means to fit in with the crowd. Participants' feelings about being bullied were also explored. A multitude of emotions were experienced by the victims; some being straight forward, while others were more complicated and a mixture of emotions. Anger was the most frequently reported emotion, followed by sadness or general unhappiness.

The participants' thoughts about being bullied were also explored during the interviews. The majority of the thoughts were phrased as questions, in an attempt to make sense of their situation. Some participants reported experiencing suicidal thoughts as a result of being bullied. None of the participants' responses with regard to their thoughts were framed positively. The ways in which participants coped with their bullying could be clearly divided into productive or unproductive coping strategies. Productive strategies were attempts to solve the problem (e.g., talking to others or using humour), while unproductive strategies tended to exacerbate the problem (e.g., wishing for a miracle or crying).

The next category to be explored during the interviews was the participants' opinions of bullies. Many of the participants were initially reluctant to express their honest opinions, and then expressed predominantly negative opinions of their bullies, and bullies in general. Only the female participants reported feeling pity for their bullies. The next category explored was victims' reactions to the bullying, and was divided into either positive or negative reactions. Positive reactions were ones that would typically lead to a resolution of the problem or prevent escalation of the current situation (e.g., walking away or reporting the bullying to a teacher). Negative reactions would generally lead to escalation or would provoke further bullying (e.g., bullying or fighting back, or losing one's temper). The final category examined the reasons why victims thought each bullying instance had stopped. Many of the participants could not think of why the bullying had ended, but males tended to believe it was when they fought or bullied back, and females believed it was when a friend defended them.

The interviews with the participants provided very valuable information about the current status of bullying in schools. Previous research has tended to rely on the use of self report measures, which often do not provide a great deal of depth and the opportunity for elaboration.

Comparison of Quantitative and Qualitative Results

When comparing the results from the quantitative measures with the results from the qualitative interviews, both similarities and differences were evident. There were a number of similarities between the survey measures and the interview material. The types of bullying reported on the School Safety Survey – Revised and the Peer Victimisation Scale were the same as what the participants reported during their interviews. On both types of measures they reported direct physical, direct verbal and indirect types of bullying. Their emotional responses to being bullies were also similar across the two types of measures. The adjectives used in the measure that combined the Impact of Event Scale and the Emotional Impact Scale were also used by the participants in their interviews to describe how they felt after being bullied.

The participants' responses on the Child Behaviour Checklist corresponded to their responses during their interviews. In the interviews, participants reported some externalising behaviours (e.g., fighting and bullying back), as well as some internalising behaviours (e.g., worry about being bullied each day). Another response that was consistent across the types of measures was the types of coping used. Participants, both on the Adolescent Coping Scale and in their interviews, reported more use of non-productive coping than productive coping strategies. A further similarity could be in participants levels of social skills. Their results on the Social Skills Rating System reflected poor use of social skills, as did their reactions to being bullied.

Finally, with regard to the similarities between measurement methods, the participants reported bullying others, both on the quantitative measures of perpetration, and in their interviews with the researcher.

In terms of the variation in responses that emerged from the different data collection methods, two major discrepancies could be seen. The participants all reported quite high levels of bullying on their pre-intervention questionnaires; however, during the interviews, a number of participants reported experiencing low levels of bullying, or no bullying at all. Also, they indicated low levels of social support on the Social Support Index, but then reported that they turned to family, friends, and

teachers when they were experiencing bullying. Two areas that were not explored through the questionnaires emerged from the interview data. These were the time and place in which bullying was occurring and participants' hypothesised reasons for being the targets of bullies.

For the most part, the results from the questionnaires and the responses gathered during the interview were remarkably similar. Some minor differences were noted in terms of the amount of bullying being experienced, and the amount of social support available to the participants, and some extra information emerged from the interviews that was not gathered using the questionnaire packages.

Discussion

The first aim of Study 2 was to develop an intervention program to teach social skills, perceived social support, self-esteem, optimism, and effective coping skills. The next aim was to investigate the effectiveness of the intervention program. In evaluating the effectiveness of the program, two main research questions were asked: 1) Would participants show a statistically and clinically significant improvement in the skills taught following the nine-week intervention and would these improvements be maintained 3 months after the conclusion of the program?; and 2) Would participants, following the intervention, be able to be classified as "resilient victims"? These will now be addressed in turn.

Research Question 1 – Intervention Effectiveness

Pre-intervention, post-intervention, 3-month follow-up and daily diary results. In order to answer the first research question, participants' pre-intervention, post-intervention, and follow-up scores, and daily diary data were analysed. This was done in three main ways: Group information was analysed using repeated-measures ANOVA, trend analysis and post-hoc pairwise comparisons for each of the intervention (or target) variables; visual analysis was used to assess participants' individual change across the three data collection phases and this information was then collated to form overall change information; and daily diary data was graphed and analysed for change from pre-intervention to post-intervention using binomial and *t*-tests.

Participants' optimism levels showed a significant quadratic, as well as linear, trend across the intervention phases. Further examination revealed that there was a significant improvement in optimism from pre-intervention to post-intervention. There was also a significant difference between pre-intervention and follow-up scores. This indicated that participants made significant gains in their optimistic thinking following

intervention, and maintained these gains three months later. This is the most usual pattern of data that would be expected from an intervention such as the one used in the current study. If the intervention is effective then participants should make initial gains followed by a maintenance period in the following months. Visual analysis revealed that the majority (over 70 percent) of the participants showed either substantial or moderate change in their optimism scores following intervention. Only one of the participants showed no change immediately following the intervention.

The group's mean optimism scores (from their daily diaries) for each day of the nine intervention weeks were split into pre-intervention and intervention periods. The intervention period began on the session day that optimism was taught. On the daily diaries, optimism was divided into two sections: optimism for the coming day, and optimism for the future. The binomial analysis showed that optimism for the coming day was not significantly different from what would have been expected had the intervention not been implemented. That is, the participants were demonstrated a gradual increase in their optimism during the pre-intervention period, which may have continued as such if they had not been taught about optimism. However, the *t*-test comparing the overall pre-intervention and intervention means showed that their mean score in the intervention period was significantly higher than their pre-intervention mean.

Similar results were found for the participant's optimism for the future; however, the improvement in optimism for the future over the pre-intervention period was steeper compared with optimism for the coming day. The binomial test was significant because following intervention, the participants' optimism scores did not continue to improve at such a rapid rate; however, their mean score during intervention was significantly higher than during pre-intervention, indicating that gains continued to be made following the session on optimism. The participants' improvements in optimism in the pre-intervention period could be due to the non-specific benefits described earlier in this chapter. The simple act of being involved in some form of therapy can have effects even before any actual 'therapy' has taken place. This was found in the study conducted by Craighead, Sheets, and Bjomsson (2005), in which positive changes in symptoms and functioning were seen in participants, even before the specific therapeutic techniques had been implemented. In terms of the optimism findings, it makes theoretical sense that the participants would be more optimistic about the following day, and their future in general, knowing that they were taking active steps towards solving their current bullying problems.

The optimism findings are in line with previous research that has examined whether optimism can be taught. Quayle and colleagues (2001) reported that improvements were seen in the optimism levels of their experimental group participants. Significant improvements in optimism were also seen in a group of cardiac patients who received optimism training (Frothingham, 2006). Reivich and colleagues (2006) also found that optimism could be taught to younger adolescents, and that improvements were maintained three years after the cessation of the program.

In terms of the effectiveness of the coping intervention, several interesting findings arose. Coping was assessed using the Adolescent Coping Scale, which assesses individual's use of three types of coping: Reference to Others Coping (e.g., seeking professional help and talking with others), Problem Solving Coping (e.g., working directly at solving the problem and looking on the bright side), and Non-Productive Coping (e.g., worrying and wishing for miracles). The first two types are grouped to form "Productive Coping", while the last one remains simply as "Non-Productive Coping."

Each of the types of coping moved in the desired direction following intervention; however, Reference to Others Coping showed no significant improvements. Problem Solving Coping demonstrated a quadratic trend that neared significance, and a linear trend that was significant. Non-Productive Coping demonstrated both a significant linear and quadratic trend across the intervention phases. Obviously these were in opposite direction, with improvements being seen in the use of Problem Solving Coping, and a significant reduction being seen in the use of Non-Productive Coping. The pairwise comparisons revealed that Problem Solving Coping was significantly improved from pre-intervention to post-intervention, but the change in standard deviation scores meant that the comparison of pre-intervention to follow-up was not significant. The pattern of rapid gains from pre-intervention to post-intervention, followed by a plateau effect from post-intervention to follow-up is common in intervention research. In fact, it is the expected, and hoped for, pattern of initial improvements followed by maintenance of those improvements.

The pairwise comparisons for Non-Productive coping showed that a significant reduction in the use of ineffective coping strategies was seen following intervention. Scores from pre- to post-intervention, as well as from pre-intervention to follow-up, were significantly different, indicating that participants had learnt which coping strategies were not useful, and were not using them to the extent they were

previously. Visual analysis of the participants' individual scores showed that of the two coping strategies where improvements would have been desirable (Reference to Others and Problem Solving Coping), only about a quarter of the participants showed either substantial or moderate increases on these subscales of the Adolescent Coping Scale; however, just over half of the participants showed substantial or moderate decreases in their Non-Productive Coping scores over the three phases. Due to the large amount of measurement error inherent in the Adolescent Coping Scale, the graphs produced for visual analysis were somewhat difficult to interpret; the SEm bars were large, and overlapped greatly, making judgements difficult.

The binomial analysis performed on the group's mean productive coping scores from the daily diary was not significant, indicating that the participants' levels of productive coping would have been the same had the pre-intervention trend continued. Participants indicated that they were using a decreasing number of productive coping strategies during the period before the session on coping; however, in direct contrast to the findings from the Adolescent Coping Scale, they reported a significant drop in their use of productive coping strategies following the intervention session that taught productive coping. This may have occurred for a number of reasons. The most plausible reason appears to be that the participants initially believed that they were utilising a number of 'productive' coping strategies; however, upon learning exactly what the productive coping options entailed, participants realised that the strategies they were using did not constitute productive coping. Subsequently, they no longer reported use of these strategies. It is also important to note that both prior to, and following, the intervention session on coping, participants were reporting very low use of productive coping in their daily diaries. It is not possible to know the exact reason for the discrepancy between the Adolescent Coping Scale and daily diary results. It may have been due to the differences in completion time of the two measures. While the program was active, participants' day-to-day change in coping may have been relatively minor, and they may have felt that they did not need to use the coping strategies while they were getting support from their involvement in the intervention program. The Adolescent Coping Scale was used at more distal points in time, and was therefore, more likely to indicate general change in coping behaviour; however, given that the Adolescent Coping Scale is widely used and has adequate validity and reliability, it is most likely that the daily diary was not capturing the participants' true coping behaviour.

Similarly, participants' diary reports of non-productive coping were in contrast to their reports on the Adolescent Coping Scale. The binomial analysis revealed that the participants level of coping during pre-intervention and intervention would not have been significantly different had the pre-intervention trend been maintained. Likewise, a *t*-test indicated a non-significant difference in the group's pre-intervention and intervention mean scores of non-productive coping. Again, the reason for the discrepancy in reports is unclear. Similar to the productive coping results, participants were reporting low use of non-productive coping (in their diaries) throughout the entire program. The significant drop in non-productive coping reported on the Adolescent Coping Scale may have been the more accurate reflection of participants' behaviour.

These results both conflict with, and support, previous research, depending on which results are examined. Past research (Huxley, Freeman, & Frydenberg, 2004) has found that some productive coping strategies showed significant improvements following intervention, while others showed positive trends towards significant improvements. This is in line with the current results from the Adolescent Coping Scale, but different to the reports from the daily dairy data. With regard to non-productive coping, the study by Huxley and colleagues (2004) found that this type of coping did decrease following intervention, but not significantly so. The results from the daily diary showed very similar results with a non-significant drop in the use of non-productive coping; however, the Adolescent Coping Scale revealed a significant decrease in non-productive coping. This is surprising given that research has shown the daily diary method to be a useful and reliable one (see, for example, Gil et al., 2001; Stone, Kessler, & Haythornthwaite, 1991).

When looking at the results for participants' levels of perceived social support, it was seen that there were significant quadratic and linear trends were evident; however, the linear trend was much stronger than the quadratic trend, as scores on the Social Support Index continued to rise through the 3-month follow-up period. There was a significant difference between pre-intervention and post-intervention scores, indicating that the participants were perceiving that they had significantly more social support following the intervention. Similarly, there was a significant difference between pre-intervention and follow-up scores. Participants made initial gains in perceptions about the amount of social support available to them, and not only maintained these perceptions, but continued to make further gains from post-intervention to follow-up. This indicates that the intervention not only taught

participants how to recognise that support was currently available to them, but also about how to seek further support, and increase the effectiveness of their current support to meet their needs.

Visual analysis of each individual's social support scores at pre-intervention, post-intervention and 3-month follow-up provide further support for clinically significant change, with nearly three-quarters of the participants showing substantial or moderate improvements in their perceived social support following the intervention program, Overall, only two participants were rated as having no change from pre-intervention to 3-month follow-up.

The binomial analysis and *t*-test of the daily diary data revealed no significant results for perceived social support; participants were, on average, indicating three sources of social support from the list of eight. This result would appear to indicate that the intervention had not been successful; however, the social support section of the daily diary only asked participants to indicate which sources of social support they would access if they felt they needed help. The Social Support Index; however, focuses more on how satisfied one feels about the level of support from their family, friends and community in general. Participants may have been completely satisfied with the support they were receiving from the three or four sources they indicated in their diaries. Their satisfaction with the level of support they were receiving is more important than the number of sources of support available to them. One may have numerous sources of support, but if none of them are offering the quality and amount of support needed, then their help will not be beneficial.

This supports previous research that indicated that students' well being and mental health are closely related to whether the student feels they can rely upon significant others for support in times of need (Rigby, 2000). It also supports past research that has indicated that perceived social support can be taught to adolescents. The study by Steese and colleagues (2006) found significant increases in adolescent girls' perceived social support levels after participating in a program designed to increase protective factors, including social support.

The results from the self-esteem and self-concept analyses showed remarkably similar results. Both showed strongly significant linear trends in the pre-, post-intervention, and follow-up data, while neither showed a significant quadratic trend. This was because participants continued to report improvements in their self-esteem and self-concept between the post-intervention and follow-up phases; however, these further improvements were not statistically significant. Significant

differences were seen between pre-intervention scores and both post-intervention and follow-up scores. From these results, it appears that the intervention was successful in initially increasing participants' self-esteem and self-concept, but also successfully taught participants how to continue to feel good about themselves after the program had finished.

Visual analysis showed that close to three-quarters of the participants were rated as having achieved substantial change in their self-esteem scores following intervention, while only two participants had no change in self-esteem immediately following intervention. The pre-intervention to follow-up comparison showed that all ten participants were rated as having made substantial improvements in their self-esteem.

Only self-esteem was assessed by the daily diaries. The results from the self-esteem analysis showed neither a significant binomial test result, nor a significant *t*-test result. The participants were reporting a gradual increase in their self-esteem during the pre-intervention phase, followed by a small drop after the intervention session on self-esteem. Following this initial drop was a steady increase in their self-esteem through to the end of the intervention period. Although a drop was seen following the self-esteem intervention session, it is important to note that throughout both pre-intervention and intervention, participants were reporting levels of self-esteem in the "average" to "above average" range on the daily diary.

Additionally, self-esteem results from the daily diary were not autocorrelated, indicating that the slight drop immediately following the intervention session was more likely a function of the non-serially dependent nature of the data, as opposed to a direct effect of the intervention. It is also important to note that although self-esteem was the direct focus on intervention in Session 6 of the program, the participants' self-esteem would potentially have been bolstered purely as a function of being in the program. One of the teaching techniques employed in the program was the use of positive reinforcement. Participants were constantly being positively reinforced not only for correct answers and improvement in their skills, but also for the effort they were displaying and for participating and paying attention during the sessions. Jensen et al. (2005) reported that the attention and positive regard that clients receive from therapists can be a powerful influence over client outcomes.

The effectiveness of the social skills aspects of the intervention was assessed both directly (through the use of the Social Skills Rating System), and indirectly through two sections of the daily diary (loneliness ratings and number of people

played with at recess and lunch times). The data from the Social Skills Rating System showed a significant linear trend across the intervention phases. The quadratic trend was not significant, indicating that gains in social skills continued after the end of the intervention program, though the pairwise comparison of post-intervention and follow-up scores was non-significant; however, the comparisons of pre- to post-intervention, and pre-intervention to follow-up showed significant improvements in participants' self-reported social skills. This indicates that participants believed that their social skills were significantly improved after participating in the BRAVO program.

The results from the Social Skills Rating System also underwent visual inspection by two independent raters. The results showed that around two thirds of the participants had made either moderate or substantial improvements in their social skills immediately following the cessation of the program. The comparison of pre-intervention to 3-month follow-up data showed that seven out of the ten participants had reported substantial improvements.

The two sections of the daily diary that indirectly assessed the acquisition of social skills were both assessed using binomial tests and *t*-tests. With regard to the loneliness data, participants were already showing rapid decreases in their levels of loneliness one week into the nine week program. The binomial test was significant, indicating that had the intervention not have taken place, the participants average loneliness scores would have continued to drop as rapidly as they had in the pre-intervention phase; however, the *t*-test was also significant, indicating that the participants' mean loneliness scores at pre-intervention were significantly higher than they were in the intervention phase, suggesting that the intervention was effective. The drop in mean loneliness scores throughout the pre-intervention period could be simply due to the participants attending the program. The program being conducted in a group format meant an instant new social network and potential friendship group for the participants. Simply meeting other individuals in similar situations to their own would have resulted in the participants feeling less alone in their circumstance of being victimised at school.

The participants' social status data was aimed to reflect their use of social skills at school. The group were reporting a steady decline in their social status over the pre-intervention period. This was followed initially by an increase, and then a less steep decline in their reported social status at school. The binomial test and *t*-test were both significant, indicating conflicting results. The significant binomial test suggests that had the baseline trend continued, the participants' social status would

have declined even further. The *t*-test revealed a significantly lower mean social status score following intervention; however, the clinical meaning of these results is far more positive. The participants' mean social status scores at pre-intervention and intervention were only 0.003 points apart. This could not be considered a clinically significant change in their scores. What appears to be important is that the intervention acted to slow the decline in social status for the participants. Another possible explanation for this result could be that the participants were forming stronger relationships with a small number of people, as opposed to having more superficial relationships with a larger group of people.

It was believed that if the participants were using their newly taught social skills, then an increase in the number of people they were playing with at school would be seen. This, in hindsight, was not a particularly good measure of whether the participants had acquired new social skills as it did not accurately assess whether they were *using* their new skills. As all social interactions require input from two or more parties, the participants could well have been using their social skills, but this does not necessarily mean that other students would automatically be receptive to the participants' attempts to interact.

One of the aims of the intervention program was to reduce the perpetration of bullying by the participants. Previous analyses had revealed that, compared with resilient victims, non-resilient victims were perpetrating more bullying of others. This issue was addressed in the second session of the program, in which participants were taught about what to do if they felt that they had bullied others, and how to stop it happening in the future. The participants' level of bullying perpetration was assessed using the Bully Behaviour Scale and a reversed version of the School Safety Survey – Revised. Trend analysis indicated that neither questionnaire produced a quadratic trend, but that the School Safety Survey – Revised revealed a significant linear trend across the phases of intervention. Further analysis of this significant result using pairwise comparisons showed that there was a significant drop in the number of bullying acts being perpetrated by the participants from pre-intervention through to the follow-up phase.

The visual analysis of the bullying data showed that a floor effect occurred for both of the bullying perpetration measures. The majority of participants were already reporting the lowest possible scores for bullying others, and, therefore, could not make further reductions in these scores. Of the participants who were not already scoring the lowest possible scores, all moved in the desired direction, most then

reaching the lowest possible scores by 3-month follow-up. Therefore, the most plausible explanation for the non-significant results would be that the participants had experienced a floor effect in their reporting. Most of the participants indicated that they were not bullying others on their pre-intervention questionnaires, and therefore, could not reduce this result significantly.

In summary, it appears that the intervention was effective in teaching new skills and attitudes, which were then maintained three months after the program ended; however, as previously mentioned, the research design was not one that would allow for any causal statements to be made. No control group was included, due a lack of the necessary participant numbers to do so. This means that the positive results seen following the intervention could be due to a number of external factors, including, but not limited to, maturation and repeated testing. Adolescence is a time of rapid development, growth, and change for individuals. Some of the changes seen in the participants could have been the simple result of becoming young adults, rather than a direct effect of the intervention program. Likewise, the act of completing the questionnaire packages more than once could have lead to improved scores on each of the measures.

There were also a number of improvements seen in the individuals before skills had actually been specifically targeted for improvement. These were the positive non-specific benefits associated with participating in therapy discussed earlier in this chapter, such as the benefit of receiving positive attention. Again, this makes it difficult to identify which were the active components of the program, and whether the improvements seen were a result of these active components.

Research Question 2 – Current Functioning

Pre-intervention, post-intervention, and 3-month follow-up results. The second research question asked whether the participants could be classified as resilient victims after completing the intervention program. The questionnaire package, which was originally designed to establish participants' victimisation level and current level of general wellbeing, was used to answer this question. Participants' pre-intervention, post-intervention, and follow-up scores on the questionnaire package were analysed using a combination of statistical analyses (as described in the results section) and visual analysis of data.

The first variable examined was the participants' levels of reported victimisation. This was assessed using the School Safety Survey – Revised and the Peer Victimisation Scale. Neither questionnaire produced a significant quadratic

trend; however, both revealed linear trends in the data across the three assessment phases. This indicated that the participants' levels of victimisation continued to drop throughout the program and through the three month follow-up period. The pairwise comparisons revealed that for the School Safety Survey – Revised, only the pre-intervention and follow-up scores were significantly different, while for the Peer Victimisation Scale, both the pre- to post-intervention, and the pre-intervention to follow-up comparisons were significantly different.

Initial visual inspection of the participants' victimisation scores on both the School Safety Survey – Revised and the Peer Victimisation Scale showed that 90 percent of participants reported a substantial or moderate drop in their victimisation levels following intervention. One participant reported an increase in victimisation on both the Peer Victimisation Scale and the School Safety Survey - Revised, followed by drops to almost floor levels by 3-month follow-up. It is possible that this participant took longer to consolidate and implement all the skills that they were taught in the program, and, therefore, the drop in victimisation did not occur immediately after the end of the program.

Decreasing participants' levels of victimisation was not a treatment aim of the BRAVO program; in fact participants were informed prior to their participation that the program was not aimed at reducing the *amount* of bullying they were experiencing, but to reduce the *impact* that the bullying was having on their wellbeing. The fact that their levels of victimisation *did* decrease could be due to a number of factors. Even if the amount of bullying experienced had not changed, if the participants were no longer being as adversely affected by the victimisation, then they may have begun to perceive the bullying as being less severe than previously thought. This could, in turn, have lead to a reduction in the reporting of bullying. The decrease in scores on the two victimisation questionnaires may also have been due to an actual reduction in the amount of bullying being experienced. If the participants were no longer being as severely affected by the bullying, then their reaction to being victimised may have changed. This, in turn, may have lead to a reduction in the actual amount of bullying, as the participants were no longer providing the bullies with reinforcement through their reactions.

One of the known consequences of being a victim of school bullying is an increase in behavioural problems, both internalising and externalising. Participants' behaviour was measured on the Child Behaviour Checklist at the three data collection times. A significant downward linear trend was seen in the participants'

behaviour problems. Further analysis using pairwise comparisons showed that a significant drop in behavioural issues was seen between pre-intervention and post-intervention. A further significant drop was seen between the pre-intervention and follow-up phases. With regard to the clinical meaning of the participants' scores, at pre-intervention the group's mean score fell in the clinical range on the Child Behaviour Checklist, at post-intervention the scores had fallen into the borderline range, and at 3-month follow-up, the group's mean behaviour score was in the non-clinical range. So, the change in the participants' behaviour scores was both statistically and clinically significant.

Visual inspection of the participants' overall behaviour scores (from the Child Behaviour Checklist) revealed that all ten participants showed moderate to substantial positive changes in their behaviour following intervention. All ten made substantial improvements immediately following the end of the program (pre-intervention to post-intervention comparison), and nine of the participants went on to show substantial improvements from post-intervention to 3-month follow up.

Without knowing whether or not the participants' victimisation levels had actually dropped, it is difficult to determine the reason for the drop in subsequent behavioural problems. If the participants were no longer being victimised to the extent that they had been previously, then this may have resulted in the decrease in their behaviour problems. Past research has repeatedly made the link between victimisation and behaviour problems. Externalising behaviours such as fighting, lying and general 'acting out' have been linked to being bullied (Haynie et al., 2001; Hodges & Perry, 1999; Mynard & Joseph, 1997). Internalising behaviours, such as becoming withdrawn and lonely, have also been associated with being victimised at school (Boulton & Underwood, 1992; Graham & Juvonen, 1998a; Hawker & Boulton, 2000; Hodges et al., 1997).

The next area of wellbeing that was examined was perceived wellness. This was measured using the Perceived Wellness Survey for Youth. As with the behaviour results, a significant linear trend was found for the perceived wellness scores. Pairwise comparisons showed that participants' perceived wellbeing had not significantly improved immediately following the intervention. However, by the 3-month follow-up perceived wellbeing had become significantly higher than pre-intervention levels. Visual analysis of the participants' individual wellness scores showed that of the 30 possible ratings (ten participants, each with three comparisons) 29 were either moderate or substantial, indicating that the majority of

the participants reported improvements in their general wellbeing after participating in the BRAVO program. The comparison between pre-intervention and 3-month follow-up scores showed that all ten participants had made substantial improvements to their wellbeing. This would appear to lend support to the notion that something other than the intervention program resulted in the increase in wellbeing scores. Alternatively, it may have been a case of the participants' experiencing less victimisation, and therefore perceiving greater levels of wellbeing, as the two have previously been shown to be associated (Forero et al., 1999). If being victimised at school tends to lead to decreases in one's perceived wellness, then a decrease in the amount and severity of bullying being experienced seems to logically lead to an increase in reports of wellness.

General health and functioing has been linked to victimisation in numerous previous studies. General health was measured in this study using the General Health Questionnaire (the 30-item version). Because of the way in which the questionnaire was scored and data file was constructed, a lowering of scores was the desirable outcome. As with both the behaviour and perceived wellness scores, only the linear trend was found to be significant; however, with these sorts of variables, this is actually a more desirable result than a quadratic trend, as it indicates continued improvements in functioning after the cessation of the BRAVO program. Two of the pairwise comparisons were found to be significant. The comparison of pre-intervention to post-intervention scores showed a significant improvement in general health, as did the comparison of pre-intervention to follow-up scores. There was a reduction in health problems from post-intervention to follow-up, but not a significant reduction. The visual inspection of the general health data showed that immediately after the program, eight participants reported substantial improvements in their health on the General Health Questionnaire. Two participants actually reported a substantial worsening of their general health, although this may have been the result of other problems occurring in the lives of these particular participants (one reported a falling out with a close friend, while the other reported increasing problems in communicating with her parents). By 3-month follow-up nine of the ten participants reported substantial improvements in their health status.

Again, these improvements in health may be related to the possible reduction in levels of victimisation being experienced by the participants. The association between health issues and victimisation has been studied extensively. A clear link has been made between health and being bullied at school (Rigby, 1998a; Williams

et al., 1996; Wolke, Woods, Bloomfield, & Karstadt, 2001); therefore, it would seem likely that a reduction in the bullying being experienced by the participants would also mean a reduction in health-related problems. However, without the inclusion of a control group, it is not possible to draw such conclusions.

The next variable that was used to classify students into resilient and non-resilient victim groups in Study 1 was life satisfaction. Non-resilient victims showed significantly lower life satisfaction when compared with their resilient counterparts. This variable was measured using the Multidimensional Students' Life Satisfaction Scale, which assessed life satisfaction across a number of domains in the students' lives. The results from the group's pre-intervention, post-intervention, and follow-up scores revealed a non-significant quadratic trend, but a significant linear trend. Again, this indicated that the participants continued to have improved life satisfaction following the end of the intervention program. When examining the data using pairwise comparisons, the data revealed only a significant difference between the pre-intervention and follow-up scores; however, the visual analysis showed that all ten participants reported substantial improvements in their levels of life satisfaction from pre-intervention to post-intervention. Clinically speaking, the participants had made significant gains in their levels of life satisfaction; however, this was not reflected in statistical significance.

The continued gains made in life satisfaction ratings following the end of the program may have occurred for a number of reasons. As previously mentioned, a reduction in victimisation levels would logically lead to an increase in positive functioning in general, but particularly in life satisfaction ratings, as these two factors have been linked in previous research (Flouri & Buchanan, 2002; Verkuyten & Thijs, 2002).

The final variable examined was perceived impact of the bullying. This was the most direct measure of the effect that the bullying was having on the participants' wellbeing. All previous variables have simply been *associated* with victimisation, but the Impact of Event Scale asked the participants to directly indicate the impact that they thought the bullying had on them. As with all the variables assessed in this study, impact was self-reported. Both the linear and quadratic trends were found to be significant, as scores continually and significantly dropped from pre-intervention through to follow-up, with some slowing in the reduction of impact seen between post-intervention and 3-month follow-up scores, which revealed a non-significant difference. The visual analysis revealed that nearly all the participants reported

substantial drops in their perceived impact of the bullying from pre-intervention to post-intervention, which was also seen in the pre-intervention to follow-up comparison.

The reduction in the perceived impact that the bullying was having could have been due to the reduction in the bullying itself. It could also have been due to the participants genuinely perceiving that the bullying was not affecting them as severely as before the intervention. This was the primary aim of the intervention: to reduce the impact that bullying would have on the participants, regardless of the amount of bullying that they were experiencing. The reduction of perceived impact may also have been a function of the participants feeling better equipped to deal with the bullying that they experienced since starting the program. With improvements in their social skills, levels of optimistic thinking, self-esteem, and productive coping strategies, participants may have believed that the bullying was no longer able to have the same affect that it had previously.

Other Outcomes

Interview results. As an adjunct to the more structured data analyses of the current study, interviews were undertaken with each of the ten participants. This qualitative portion of the study explored, in detail, the concept of bullying for the ten BRAVO participants. The interviews were structured more as a casual conversation between the researcher and the participant, rather than a formal interview as such; however, a set of ten standard questions were asked to all of the participants during the course of their interviews. Both factual as well as opinion-based information was obtained form the participants.

In exploring the in-depth information emerging from the ten interviews, a comprehensive insight was gained into the current experiences of victims in today's schools. The participants were experiencing quite different forms of victimisation, as well as varying levels of intensity of the bullying. They were experiencing their bullying at various times of their school day, and expressed a number of different reasons for being targeted by bullies. In line with the cognitive-behavioural nature of the study, the participants' feelings, thoughts, and behaviours were also explored during the interviews. The way in which participants were coping with the bullying, in both positive, helpful ways, and negative, unhelpful ways were examined. Participants' opinions of the people who engage in bullying others were explored, and, finally, the participants' hypothesised reasons as to why each bullying incident ended were investigated. Each of these categories will now be discussed in detail,

including the themes that emerged within some of the categories, and how these findings relate to the previous research on bullying.

The three themes that emerged from the 'types of bullying' category were three main types of bullying: direct and physical, direct and verbal, and indirect bullying. Being directly and verbally bullied emerged as the most common type of bullying being experienced by this group of victims (e.g. participants described being 'teased', 'called names', and 'picked on'). Participants also frequently reported being 'harassed' and 'hassled' by bullies. The most frequently mentioned types of bullying were also the most vague in their description. The participants tended to describe their victimisation in very general terms, rather than describing specific events. This may have occurred for a number of reasons. First, it may simply be a case that as young adolescents, they do not have the vocabulary to describe their bullying experiences in more detailed language. Second, they may not have wished to relive the bullying experience by retelling, in detail, what occurred. Another possible reason may be that as the bullying was happening so often, it had become a more general concept to them, rather than a series of specific events. Finally, there is the possibility that what these participants constituted as bullying, was not in fact bullying (according to the definition used in the bullying literature). They may have simply been more sensitive to the every day interactions amongst peers, and perceived that others are 'picking on them' when this was not the case. Regardless of the reasons behind the participants' descriptions of their bullying experiences, their descriptions of the types of bullying they were experiencing were in line with previous research. In fact, as a group, the participants covered nearly all types of bullying described in various previous research studies (e.g., Rivers & Smith, 1994).

In terms of the frequency with which the participants were perpetrating bullying, again, there was a variety of responses from the group. Some reported continued high frequency bullying, while others reported that their bullying was not occurring as frequently as it had in previous years. One participant even reported that the bullying had stopped completely. Previous research has shown that as age increase, the frequency of bullying tends to decrease (Whitney & Smith, 1993). As primary school students become secondary school students, they report being bullied "sometimes" in greater numbers than those reporting being bullied "once a week." The current study supports this decline, as a number of the participants, currently completing year 7 at school, reported that they had experienced much more frequent bullying in their previous year at school (i.e., grade 6). The one year eight student

also reported that she had experienced less frequent bullying than when she was in year seven, again supporting the gradual decline in frequency through the secondary school years. Despite the decline in frequency that some of the participants had experienced, all participants were still being adversely affected by the bullying they were experiencing.

The next category considered the time that the bullying was occurring. Most participants indicated that they were being bullied during recess and lunch times, followed by during class time, and finally before school. No participants reported being bullied after school hours. This was both in line with, and in contrast to, previous research. Previous studies have reported that the most amount of bullying occurs during recess and lunch times, with some 30.2 percent of all bullying occurring during these times (Seals & Young, 2003). The same study by Seals and Young (2003) found that the next most likely time for bullying to occur was after school; however, no participants in the present study reported being victimised after school. Following 'after school' the Seals and Young study found that class time was reported as the next most frequent time for bullying to happen. This was similar to the present study's findings, with half of the participants reporting that they were being bullied during class time. Only one participant reported being victimised before school, which supports the previous research in which only 8.8 percent of victims reported that their bullying occurred prior to the school day starting. This means that the vast majority of bullying is occurring during school hours, and potentially after school. Schools need to be aware that most of the victimisation that students are suffering is during their time on the school grounds; making it the schools responsibility to deal with such instances.

The fourth category of the interview explored the participants' explanations as to why they were getting victimised. Two main themes emerged from the interview transcripts – reasons for bullying that related to the victims themselves, and reasons that pertained to the bullies. The participants' responses both supported and contradicted previous research into the reasons why bullying occurs. One participant indicated that he thought the bullies believed that he was weak and would not retaliate. This supported previous research that showed that victims were often selected because they would either retaliate excessively, or not at all (Kochenderfer-Ladd, 2003). It was also interesting that one participant talked specifically of depression being the reason for victimisation. Previous research has certainly found an association between victimisation and depression, but no causal relationship has

been established (e.g., Haynie et al., 2001; Nansel et al., 2001; Olweus, 1993) Yet, this victim clearly attributed the bullying to the fact that he “looked depressed.” Some of the participants took a more compassionate view and believed that the perpetrators were also being bullied themselves. Again, this is in line with previous research, which has shown that there is a subset of students who are both the perpetrators and victims of bullying behaviour (Salmivalli, 1999).

The only instance of participant responses somewhat contradicting the research was when participants talked about their physical appearance being the reason for bullying. Some previous research studies have found no relationship between physical appearance and victimisation status (Olweus, 1978, 1993), while others have found mixed results. Sweeting and West (2001) found that variables such as race, physical maturity, and height did not differentiate whether a student would be victimised or not; however, they did find that students who were considered to be less physically attractive than their peers, were overweight, had some form of disability (e.g., a speech, hearing, or sight problem), or performed poorly in the academic realm, were more likely to be bullied.

The next category to be explored related to how the victims felt about the bullying that they were experiencing. They were asked to indicate how they had felt during the bullying incident, immediately after the bullying, and also how they felt when they had had time to reflect on what had happened to them. Five main themes emerged from the interview transcripts: 1) angry, 2) sad, upset, or unhappy, 3) frustrated, 4) annoyed, and 5) mixed and other feelings. These themes are in order from most to least frequently reported. It was interesting to note during the interviews that many participants had difficulty distinguishing between thoughts and feelings. When asked how they felt about the bullying, they would respond with the thoughts that they were experiencing at the time of the bullying.

It was interesting that one participant reported a paradoxical emotional response to bullying; the bullying actually relieved him of any anger he was previously feeling. He described how the bullying would take his mind off whatever other, less significant event was causing him to be angry; it became a new focus point, but did not actually make him angry. The other participants, who reported that being bullied made them angry, appeared to be feeling angry because of the unjust nature of the bullying. Some participants reported that they were angry because they had not done “anything wrong”, or done anything “to them” (i.e., the bullies). This may be the actual case - that the bullying really was unprovoked, but it may also be a

case of victims not being aware that their own behaviours were inciting the bullies. Unfortunately, without this information from the bullies themselves it cannot be determined whether the attacks were random and unprovoked, or if the victims are lacking insight into the effects of their behaviour on the bullies. If victims could know exactly what behaviours of theirs were provoking bullying attacks, then they could (if they chose to) make steps towards altering those behaviours.

Being 'annoyed' as an emotional response to bullying has certainly been reported in previous research. Smith, Talamelli, Cowie, Naylor, and Chauhan (2004), interviewed students aged between 13 and 16 years, and found that 36 percent of victims reported feeling annoyed, amongst other emotional reactions, after being bullied.

The participants were also asked about the thoughts that they had both during and after bullying incidents. Three main themes that emerged from the interviews: 1) questions, 2) suicidal thoughts, and 3) general thoughts. None of the participants expressed any positive thoughts about the bullying. Often their negative thoughts were about themselves, and involved placing blame for the bullying on themselves and their own actions.

It was interesting that most of the participants expressed their thoughts as questions. It appeared that they were asking themselves questions in an attempt to make sense of the situation that they were in. They were trying to make sense of why they had been targeted for that particular attack, wondering what they had done to provoke the bullying. Two of the participants even admitted to having experienced suicidal thoughts because of the bullying. Neither had ever attempted to follow through on those thoughts, and both had expressed these thoughts to their respective mothers. One male participant had also expressed that he didn't care if he was seriously hurt, or even killed, by the people bullying him.

These last examples notably highlight the seriousness of bullying in schools, and the extreme effects it can have on the victims. Previous research has shown strong links between being a victim of school bullying and experiencing suicidal thoughts (Kaltiala-Heino et al., 1999). The previous research on suicidality in victims of bullying has focused on adolescent samples. The Kaltiala-Heino et al. (1999) study, for example, examined a group of 14 to 16 year olds. The two participants in the current study were aged 12 and 13 years, and indicated that the suicidal thoughts they had experienced had occurred in the previous year, making them even younger when they occurred. This possible decrease in the age of victims experiencing

suicidal ideation is particularly alarming, although caution should be made in generalising the findings of two participants to the wider cohort. Again, this finding in combination with previous research on the link between suicidal ideation and victimisation has implications for school personnel, who need to be trained to identify students at risk of suicide.

The next subject discussed during the interviews was how the participants were coping with being bullied. Obviously the bullying was having a detrimental effect on their general wellbeing, but it is also important to note that all of the participants were still managing to attend school every day. Past research has indicated that a significant proportion of bully victims come to deeply dislike school, develop anxiety related to attending school, and often refuse to attend school because of the bullying (e.g., Boulton & Underwood, 1992; Hoover et al., 1992; Slee, 1994); therefore, it was assumed that the participants in this study must be making use of some forms of coping strategies. From the interview, the participants' responses could be clearly divided into productive coping and unproductive coping attempts. The participants' attempts at productive coping included such things as talking to others about it, seeking professional help, letting out emotions in an appropriate way, using humour, and relying on friends. Unproductive strategies included such attempts as wishing for a miracle, ignoring or trying to forget about the situation, hoping the situation will change and the bullying will end, and crying. Some of the current findings supported previous research of the coping strategies of victims of bullying. Bijttebier and Vertommen (1998) found that victimisation was closely related to both seeking social support and internalising coping, such as worrying. More recently Cassidy and Taylor (2005) found that being a victim of bullying was significantly and negatively associated with using problem solving coping strategies.

The eighth category that was explored in the interviews was the participants' opinions of the people who bullied them. It was interesting to note how reluctant the participants were to voice their opinions in the interviews, due to fear of identification. Only after being assured that their answers would be anonymous were they willing to express their thoughts about their bullies. None of the participants' answers were positive. A number of the female participants expressed pity for the bullies, and only the female participants expressed different opinions for both male and female bullies. This may have been because the females were being bullied by both males and females, while the male victims were only being targeted by other males.

Female participants also expressed a greater variety of opinions than the male participants, although it was a male participant who suggested that the bullies were themselves depressed, and that was why they bullied others. Three of the participants thought that the bullies were “problemed” individuals. The remaining opinions were negative descriptors of the bullies, such as “they’re mean”, and “they’re stupid.” It is not surprising that victims do not hold positive opinions of the people who bully them, and their reluctance to express their opinions of bullies further highlights the fear that these victims feel.

In line with the cognitive-behavioural nature of the intervention program, participants were asked how they typically reacted to the bullying they experienced. The participants’ responses were divided between two distinct themes: positive reactions, and negative reactions. Positive reactions were those that should have lead to a reduction in the bullying, or at least prevented any further escalation of the current bullying episode. Negative reactions were those that would lead to further escalation of the current bullying, or even encourage more bullying in the future. There were also negative reactions that were an indirect consequence of the bullying; for example, a decline in academic performance.

Females were reporting more emotional reactions to the bullying, whereas the male participants were reporting that they fought or bullied back as a reaction. This result supports the results found in the Kochenderfer-Ladd and Ladd (1997) study. Interestingly, the most common response from both male and female participants was that they stood up for themselves in response to being bullied; however, they also reported that this was not a useful technique in stopping either the current bullying episode or future bullying incidents. This is most likely because the participants’ attempts to defend themselves only served to further provoke the bully. A number of the participants indicated that they stood up for themselves by retorting, and arguing with any verbal bullying they experienced. It seems likely that this would lead to an escalation of the situation. Similarly, some participants reported that they walked or ran away from the bully. Although this could be considered a positive reaction as it lead to a de-escalation of the situation, it may also have reinforced the bully’s behaviour.

The final question asked of the participants in the interviews was why they thought that bullying stopped. This was in reference to a specific bullying episode ending, but also why bullying in general would stop, given that some participants reported that some or most of the bullying that they were experiencing had already

stopped. Many of the participants found it difficult to think of why the bullying had stopped. This would make it difficult for victims to be proactive in preventing future bullying, as they did not know why each bullying episode had ended; however, for the participants who were still experiencing bullying, the males believed that the bullying only ever stopped when they fought back, or when the bully couldn't "be bothered" anymore. The females were more likely to indicate that it was an action on their behalf that ended the bullying; for example, being more positive and outgoing.

The majority of the participants' responses supported previous research, while some contradicted previous findings. Males and females answered in quite similar ways on only one of the categories (time of the bullying occurring), and answered in very different ways in other categories (type of bullying, frequency of bullying, ways of coping with bullying, opinions of bullies, reactions to being bullied, and reasons why the bullying stopped). There were also categories where males and females were similar in some of their responses and quite dissimilar on other responses (feeling and thoughts about being bullied, and reasons for the bullying occurring in the first instance). It was also useful to examine the participants previous attempts to deal with bullying in more detail as this provides valuable information about ways to manage bullying.

Most interesting to emerge from the interview data was the participants' tendency to externalise the causes of their bullying. The majority of the participants attributed the causes of their bullying to reasons not under their control; that is, they were demonstrating an external locus of control. Participants appeared not to be able to recognise that their behaviours, particularly their immediate reactions during bullying situations, may have contributed to the continuation of their victimisation. Although not directly articulated by the participants, many of them conveyed a sense of helplessness and hopelessness regarding their current situation; they believed they had no control over their victimisation. This has significant implications for the development of interventions in which the cessation of bullying is the primary goal. Victims may need to recognise their possible contribution to the initiation and maintenance of the bullying in order for change to come about. This would need to be done with extreme caution as to not convey to victims that they are wholly to blame for their victimisation.

Outcomes not targeted by intervention. There were several variables that were not directly related to the research questions, but that produced significant and important results. The first were the findings from the Individual Protective Factors

Index. Protective factors were not directly taught during the BRAVO program; however they were measured at the three data collection times. The participants, as a group, continued to report gains in their levels of protective factors following the end of the program. Further analysis using pairwise comparisons showed that significant differences were seen between the pre-intervention scores and both post-intervention, and follow-up scores. This indicates that although participants made further gains in their resilience between post-intervention and follow-up, resulting in the significant linear trend, these gains were not statistically significant. The Individual Protective Factors Index is considered a general measure of adolescent resilience levels, so it is encouraging to see that the participants perceived their resilience to have improved following the intervention. Visual analysis of the individual participants' scores at the three data collection points indicated that nine of the ten participants reported either a substantial or a moderate change in their resiliency immediately following the program. Seven of these also showed similar gains in the time between the end of the program and 3-month follow-up. Six of the participants reported substantial gains from before the program through to the 3-month follow-up point, but two of the participants had returned to pre-intervention levels by follow-up.

Two of the diary sections were not the direct targets of intervention: perception of the day, and coping effectiveness. The binomial analysis and *t*-test of the daily diary data revealed a significant binomial test result, and a non-significant *t*-test result for perception of the day. The significant binomial test indicated that the participants' perceptions of their days would have been significantly higher had the intervention not occurred; however, the *t*-test revealed no significant differences between the pre-intervention and intervention data. The fact that there was no autocorrelation in the data around perceptions indicates that the participants were responding in a somewhat random fashion, which did not change following intervention. Also, the intervention for this variable was psychoeducation about how thoughts, feelings, and behaviours are all related. It involved teaching participants to identify the way they thought about situations, and how that influences the way in which they felt about certain situations. This is usually taught early on in cognitive-behavioural therapy, but also takes a great deal of practice to be able to implement changes in thinking patterns, and, therefore, how situations are perceived. The participants may not have had adequate time to practice and then incorporate these new thinking patterns into their daily repertoires during the intervention period.

The other diary section that was not the direct target of intervention was coping effectiveness. The binomial test revealed a non-significant result, as did the *t*-test. This would indicate that the intervention did not impact on the participants' coping effectiveness. Throughout both the pre-intervention and intervention phases, participants were reporting quite low levels of coping effectiveness. This may have occurred for the following reason: during pre-intervention, participants were reporting low levels of coping effectiveness because they knew they were not coping well with the bullying. Following intervention, and now having an understanding of what constituted 'productive' coping, participants realised that the coping they were using (mostly non-productive techniques) was not effective, and so continued to report low coping effectiveness. The productive coping data showed that even following intervention, participants were not utilising their newly learnt coping strategies, but on a positive note, they were recognising that their coping was not effective.

Overall, the results paint a positive picture about the effectiveness of the nine-week intervention program developed and implemented in this study. Participants, on the whole, demonstrated improvements in areas that were targeted for improvement, and decreases in the negative variables assessed. It is important to remember that all measures were self-report; no verification was obtained from parents, peers, or teachers, of the gains the participants were reporting to have made; however, it appears that it is just as valuable for participants to *believe* that they have the skills and cognitions taught in the program, than to actually possess those skills. It is the belief that they are now equipped with the right skills and attitudes to not be adversely affected by bullying that results in them actually not being as affected. Whether or not they actually have acquired new skills appears not to impact their wellbeing as much as their belief about their new skills.

Limitations and Future Research Directions

Given the research design used in the present study, the findings need to be interpreted with extreme caution, and there are a number of limitations that require acknowledgement. The most obvious limitation to the present study was the lack of a control group due to the small number of participants involved in the study. With no control group, the precise impact of the intervention could not be established and causal attributions are untenable. Although very positive results were found, these could have occurred for any number of reasons other than the actual intervention program. As previously mentioned, maturation could have caused the changes seen in the participants. The rapid growth and change that adolescents experience may

have resulted in improvements in their resilience, and also a lowering in their victimisation levels. Previous research has shown that as students get older and progress through school, victimisation tends to decrease (Hazler et al., 1991). The intervention was implemented at the end of one school year, and the follow-up data collection took place during the first months of a new school year; this movement to a higher year level may have resulted in a decrease in the amount of bullying. Also, the repeated testing of participants with the same questionnaire packages could have resulted in a practice effect. The more times one takes a test, the more likely they are to get better results on that test. The inclusion of a control group would help control for these threats to internal validity.

Along with issues of internal validity, there were issues with the external validity of the present study. The study was conducted in a clinical setting, which has been shown to be less effective than conducting research *in vivo* (Ollendick & King, 2004). The setting in which the intervention took place was different from the setting in which the participants would need to implement the skills learnt in the program. A balance needs to be found between internal and external validity to ensure the most beneficial outcomes for the participants. The skills learnt by the participants need to be able to be generalised to realistic settings, but not at the cost of being able to attribute the changes seen in the intervention itself.

The small sample size was a limitation of the present study. General media advertising, along with several other strategies, were used to recruit participants. While this created initial interest in the study, followed by a lower number agreeing to take part, even the initial numbers would not have been enough to have allowed a randomised control trial design to be utilised. The small sample size impacted on the type, and power, of the analyses that could be used to examine the results; however a vast number of the results were found to be significant. With school bullying becoming more present in the media, it was assumed that adequate numbers would easily be recruited for the present study; however, the majority of schools were not willing to advertise the study in their weekly newsletters. It is believed that many schools refused to advertise the study as it would have been, in some way, an admittance that the school suffered from a bullying problem.

Although, these limitations greatly restrict the types of generalisations that can be made from the present findings it should not diminish the utility of this study. The present study can be seen as a strong starting point for further examination into the effectiveness of resilience programs for victims of school bullying. Future research

would need to increase the sample size, as well as make use of a control group. This would allow for more confident conclusions to be drawn about the effectiveness of the BRAVO program. It would also be useful for future studies to look at different age cohorts. Bullying is not a uniform phenomenon; it varies greatly across all age groups, across school year levels, and between the genders. Intervention targeted at even younger age groups could allow students to be resilient to the typical effects of bullying, perhaps before they have even been the victims of bullying.

Conclusion

The findings of the present study provide valuable information about how to provide victims of school bullying with the resilience they need to not only avoid the typical negative effects of bullying, but to continue to thrive despite being bullied. The present study, although limited in its capability to draw strong causal conclusions about the effectiveness of the intervention, has indicated that victimisation resilience skills can be taught to adolescents, and that these skills may act as a buffer to the negative effects that bullying typically has on its victims. Due to the design of the present study, it could not be confirmed statistically that participants had improved as a direct causal result of the intervention program, but clinically speaking, at the follow-up period, the participants were functioning more effectively than they were prior to participating in the intervention program. In fact, the study showed that victims can not only stop the decline of their wellbeing – due to being bullied – but can actually begin to function at levels above the average, non-bullied, student.

This study provides thought-provoking information about resilient responses to bullying, and acts as a starting point for future research in the area. School bullying has serious negative consequences for the individuals involved; providing students with the skills and attitudes necessary to not only avoid the typical negative effects of being bullied, but to thrive at school and into the future, is another step forward in the growing field of positive psychology.

CHAPTER 6

General Discussion

Summary of Findings

The Nature and Prevalence of School Bullying

Bullying is a common occurrence in schools all over the world, and can have serious negative effects on the individuals involved. Previous research has reported prevalence levels varying from 4 to 27 percent. The current research found that 130 of the total 867 participants (14.99%) could be classified as being seriously victimised (based on victimisation scores falling 1 *SD* from the mean). This is in accord with past research, including the research by Olweus (1994), who found that 15 percent of the 130,000 strong sample of students were involved in bullying, either as victims or bullies.

From both the questionnaires and the interviews with the BRAVO participants, a greater depth of understanding of the current status of school bullying was obtained. The participants reported a variety of types of bullying being experienced. These types, in accord with previous research, could be described as being either direct physical bullying, direct verbal bullying, or indirect bullying. The direct forms of bullying were reported nearly five times more often than indirect forms of bullying. It was interesting that considering schools' increased awareness of the problem of bullying, the more indirect forms of bullying were not being perpetrated by bullies, who were still freely using direct forms of bullying, indicating a greater need for school staff to be aware of bullying, and a need for more supervision of students. This need was also reflected in the results that showed that bullying was most commonly taking place during class time, and also at recess and lunch – times when teachers should be able to monitor the students closely (more so in class, than during recess or lunch).

Males and females appeared to experience both direct physical bullying and direct verbal bullying, these being perpetrated by both male and female bullies. The interview data revealed that females were more than twice as likely to be the victims of direct verbal bullying as males. The direct physical bullying was happening equally for the male and female interview participants. Many of the participants reported the bullying in very vague terms, such as being "picked on" or "harassed", and were unable to give more specific details. This may indicate a need for students to be better educated about what behaviours actually constitute bullying. This would

hopefully lead to students having a clearer understanding of what bullying is, and could help them to more accurately report any bullying that they are experiencing.

The interview participants also reported a number of negative emotions associated with being bullied. These included such emotions as anger, frustration and sadness. This information could be useful to teachers as the early signs or indications that a student might be a victim of bullying. Given that some of the participants reported suicidal thoughts as a result of being bullied, the need for early identification of victimised students is clear. If teachers and parents are educated in early signs that their student or child is being bullied, including typical negative emotions experienced by victims, then steps can be taken early on to try to help the victim.

The participants also indicated, for the most part, that they did not know what they could do to end their victimisation. For those who did provide responses during this part of the interview, of particular concern were the responses of the male victims. They believed that bullying only ended when the bully could no longer "be bothered" or when the victim fought or bullied back. Believing that these are the only reasons that bullying ends would have two possible outcomes – either the victims feel helpless, if they have to wait for the bully to lose interest, or the victim fights back, resulting in escalation of the problem. This highlights the need for students to be taught skills and strategies that will help end their victimisation.

Characteristics of Resilient Victims of School Bullying

It has been repeatedly shown that bullying can have serious negative effects on the victims; however, as the general resilience research has shown, not all individual react the same way to the same adverse or traumatic circumstances and events. Previous research has shown that bullying can be considered a traumatic event that can have comparable impact, both physically and psychologically, on its victims as other forms of abuse, such as childhood sexual or physical abuse (Boney-McCoy & Finkelhor, 1995). Not all victims of bullying display the same responses to being bullied; some succumb to the typical negative effects of repeated victimisation, some will continue to function adequately, while others go on to not only survive the bullying, but thrive in the school environment.

In the first study of its kind (to the author's knowledge), the current research showed that school students could be reliably divided into four groups, based on their victimisation levels and their perceived general wellbeing levels (labelled 'positive health' in this study). These groups were: resilient victims, non-resilient victims,

healthy non-victims, and poor-health non-victims. This initial study clearly demonstrated that there are in fact resilient victims: students who are victimised but who remain relatively unscathed. These resilient victims, the group of most interest, comprised only 5.8 percent of the sample investigated in Phase 1, indicating that, by these criteria, only a small proportion of students show resilience to the typical effects of bullying. This means that the majority of victims are suffering serious negative consequences of being a victim of school bullying. Such consequences include low psychological wellbeing, poor social adjustment, psychological distress, and physical illnesses. These consequences not only affect the victims during their school years, but have also been known to continue to affect victims well into adulthood (Clarke & Kiselica, 1997).

The first study also showed that not only could resilient victims be reliably identified, but that they differed significantly from non-resilient victims on a number of psychosocial variables. Once again, this was the first time that these specific variables have been investigated in this context. The most significant differences between resilient and non-resilient victims were seen in four main areas: optimism, productive coping, self-esteem and self-concept, and social variables (i.e., social skills and social support). Resilient victims showed significantly higher levels of these positive skills and attitudes by comparison with the non-resilient victims. Interestingly, resilient victims also reported significantly higher levels of bully perpetration than the non-resilient victims. While intuitively it might be assumed that those who are less affected by bullying are likely to be the ones who are experiencing less frequent or less severe bullying; this was clearly not the case for this sample.

More importantly for the present research, all the variables that distinguished the resilient and non-resilient victims were ones that have previously been shown to be amenable to change through group intervention programs. The results from the first study in the current research were in line with the findings of previous research in the general areas of bullying and resilience, respectively. As these two areas have not been considered together in previous research, the results were also unique and could not all be directly compared with pervious findings. The main implication from Study 1 was that the deficits in psychosocial skills seen in non-resilient victims are skills that can be taught, and therefore lend themselves to an intervention program for victims of school bullying.

Treatment Outcomes

Many attempts have been made to develop effective interventions to combat the problem of bullying in schools. The majority of these have focused on trying to reduce the incidence of bullying, rather than the impact that bullying has on the victims. These programs have also often been aimed at the entire school population, or have used a 'whole school policy' approach, rather than specifically targeting the victims of bullying. The results from intervention studies have been varied. While some studies have shown remarkable success at reducing the level of bullying in schools (see, for example, Olweus, 1992a), others have shown either no change, or even *increases* in levels of victimisation (see, for example, Pepler et al., 1994). While interventions to reduce bullying in schools are important and necessary, so is the need to protect victims from the serious negative effects of bullying.

As previously mentioned, the first study generated results with important implications for the development and implementation of intervention programs for victims of school bullying, with the potential for intervention programs to be specifically tailored to the needs of both individual non-resilient victims, and groups of non-resilient victims, depending on the particular deficits that each non-resilient victim is showing.

As a result of the findings of the first study, a second study was conducted to investigate the effectiveness of an intervention targeting the previously identified characteristics of non-resilient victims. The second study aimed to first develop and then implement a group-based cognitive-behavioural program for adolescent victims of school bullying. The nine-week program contained elements of pre-existing programs that had proven successful in teaching the target skills and cognitions of interest, as well as some newly developed approaches. The participants in the program were ten year 7 and 8 students. Participants were assessed on both their levels of victimisation and general wellbeing, as well as on their levels on the target variables (i.e., optimism, coping, self-esteem and self-concept, social skills and social support) prior to the implementation of the program. The participants were assessed at three points in time: pre-intervention, post-intervention, and at 3-month follow-up. The same questionnaire packages utilised in the first study were used during the current investigation.

The intervention was implemented by the primary researcher as well as three different co-facilitators, one for each of the groups. The program consisted of a combination of didactic instruction, modelling, role play, and constructive feedback.

This process was repeated until each participant had mastered the current skill. This process of explanation, demonstration, modelling, and feedback has been shown to be an effective method for teaching new behaviours (Watson & Kramer, 1995).

The results of this second study were very promising; however, the lack of a control group meant that all findings needed to be interpreted with caution. As a group, the participants showed improvements in all the areas targeted for improvement, as well as decreases in the use of undesirable strategies and behaviours. The group also showed marked increases in their reported levels of general wellbeing, and decreases in the levels of victimisation being experienced. This last finding was extremely positive, considering that levels of victimisation were not targeted specifically by the program; that is, participants' levels of victimisation were not expected to decrease, but their ability to cope with the bullying, and their levels of general wellbeing were expected to improve as a result of the intervention. For many of the variables, participants continued to make gains during the follow-up period. This indicated that not only had they consolidated what they had learnt, and were maintaining those new skills, but they were also continuing to make improvements after the end of the intervention program.

The lack of a control group due to the small number of participants recruited was the biggest limitation of the second study. This made it impossible to establish whether the intervention had caused the changes seen in the participants, or if they were caused by some other factor. The study, therefore, had very limited internal validity. External validity was also a concern in the second study as the intervention was conducted under strictly controlled circumstances, quite dissimilar to the circumstances in which the participants were experiencing their bullying. The small sample size also limited the generalisability of the findings to other non-resilient victims. However, it is unlikely that the changes seen in the group could be explained by maturation alone as it was only a short period of time in which the program was implemented. In addition, previous research using similar strategies found changes in participants that were not seen in control groups. Therefore, it is cautiously suggested that the intervention program was successful and warrants further investigation.

Theoretical Implications

The current research is the first to identify and classify resilient and non-resilient victims of school bullying using a systematic and methodologically sound method. The differences between these two groups of students provide valuable

information about how students react differently to being victimised. Of further important was the identification of the set of skills and cognitions that resilient victims possess that allow them to continue to thrive despite being victimised at school. By identifying the specific skill deficits of the non-resilient victims, it may be possible to identify early on the individuals who may not cope well with bullying. However, further research is needed to establish at what stage these resilience skills are developed. The current research did not allow for causal directions to be established. It may have been that the resilient victims had developed this set of skills and attitudes in direct response to being bullied, or it may have been that they always possessed resilience skills, and the bullying then triggered the use of these skills to minimise the impact of the bullying on their health and wellbeing.

The current study adds to the body of knowledge in both the areas of school bullying and resilience.

Methodological Issues

Recruitment Issues

A recurring problem in the area of intervention research is that often the individuals in most need of help are unable to access or receive it. This would appear to be the case in the present research. The prevalence of victimisation in the participating schools was found to be approximately 15 percent; however after several months of recruiting efforts, only 21 individuals who met the inclusion criteria agreed to participate in the program. Of these, only 10 went on to complete the BRAVO program. The most apparent barrier to the recruitment of students in need to help was the lack of cooperation from schools. All government schools in the western, northern, eastern educational regions were contacted and asked if they would place an advertisement for the BRAVO program in their school newsletter. Of all these schools (around 130), approximately 20 agreed to help advertise the study.

Given that around 20 schools advertised the study, a very limited number of interested parties contacted the researcher. There appears to have been other barriers preventing people from wanting to partake in the program. There may have been some level of stigmatisation attached to the program because it was being conducted by a psychologist, and being run in a psychology clinic. Victims of school bullying are already somewhat isolated because of the bullying they experience, and may consider participating in a program as more isolation, further highlighting their differences to other students.

Generalisability of Findings

The generalisability of the findings from Phases 1 and 2 of Study 1 was limited for a number of reasons. First, the sample was purely Australian, limiting the generalisability across other nations. The sample was also taken from one geographical region in the north-east of Melbourne; however, the schools participating in this region were of varied socioeconomic status, with much diversity in the ethnic background of the participants. The sample also only consisted of year 7, 8, and 9 students, with a mean age of approximately 13 years. This means the results cannot be easily generalised to other age groups or year levels.

The generalisability, particularly of Study 2's findings, is limited due to a number of factors. First and foremost is the small sample size and lack of a control group. The significant findings in this study could have been due to any number of other factors besides the program; therefore, making it difficult to extrapolate the findings to the wider, general victim population.

Further, the self-selection of participants in the second study may have resulted in a non-representative sample. Those victims of bullying who were willing to participate in the group intervention may have possessed certain characteristics, or could have been either more or less affected by bullying than the majority of victims, again limiting the generalisability of the findings to the wider victim population. In other words, the non-resilient victims who were willing to participate may have differed greatly as a group compared with those non-resilient victims who did not wish to participate.

Qualitative and Quantitative Measures

As previously acknowledged, there were limitations in the first study, which included the use of only self-report as the sole method of data collection. Although this has previously been shown to be the most effective way to gather information about bullying (e.g., Austin & Joseph, 1996; Whitney & Smith, 1993), there is still a concern that participants might have provided socially desirable answers. Being able to confirm the accuracy of the findings through the use of peer, parent, and teacher reports, would allow for more reliable conclusions to be drawn. Despite these concerns, it must be recognised that if a student *perceives* that they are being bullied, and that they are not coping well on a range of measures, then they are in need for assistance, regardless of the objective reality of their bullying situation.

Discrepancies between qualitative and quantitative measures have been found in past studies, not only in the results that they produce, but also in other areas, such as their ease of administration and cost-effectiveness.

Diaries Versus Questionnaires

The two methods used to gather quantitative data in the current study were daily diaries (designed specifically for the BRAVO program), and well-established, reliable questionnaires. The diaries were used as a means of tracking the more subtle changes in the participants across the intervention period. The questionnaires were used to compare the participants' results before the program and after the program. The discrepancies in results between the diaries and the questionnaires may have occurred due to the different data collection periods. Previous research (Stone, Kessler, and Haythornthwaite, 1991) has reported that daily diaries offered improved overall accuracy over summary measures, tended to reduce recall biases or mistakes, and increased the accuracy of recall concerning the temporal sequence of events. It would be assumed that answering questions relating to the current day would be more accurate that answering questions about general, overall functioning. Questionnaires, however, provide valuable information about overall change due to interventions. It is, therefore, recommended that both these methods be used to assess individual, as well as group change as a function of intervention programs.

Implications for Clinical Practice and Future Research

Assessment

Past research (Austin & Joseph, 1996; Whitney & Smith, 1993) has concluded that a reliable method for establishing the incidence of bullying, particularly from middle school age upward, is the use of anonymous self-report questionnaires. However, other research (Pintabona, 2006) purports that the use of multiple informants gives greater accuracy. If time and funding of the particular research or school project permits, it is recommended that multiple informants be used in order to obtain the most accurate prevalence rates. However, with regard to the assessment of student health, wellbeing and functioning, it is believed that self-report remains the most useful method. If a student truly *believes* that they are suffering the negative consequences of bullying and want help, other informant's opinions no longer apply.

Early Intervention and Prevention

The current research has provided valuable information about the differences between students who cope well with being bullied, and those who do not. This information has lead to the development of an effective intervention program for

those non-resilient victims of bullying. However, the research specifically targeted only those students who were already victims, and who were already suffering from the serious negative consequences of bullying. In order to help prevent students suffering from these effects, the skills taught in the BRAVO program could be incorporated into the school curriculum so that students who are at risk of becoming victims and of suffering negative effects (but were not victims at the time of screening for participation) will also receive intervention. This approach can be cost effective and sustainable because it can be worked into the already existing curriculum and draws on staff expertise that is already present.

Practical Implications

Teachers. Teachers, in particular, need to be made aware of most common types of bullying and when and where it is occurring in the school. Many participants in the current research reported that they believed their teachers were either not aware of the bullying occurring, or did not care about it. Teachers need to acknowledge that bullying is occurring, and need to show students that they are making concerted efforts to help. They also need to be educated about the emotional impact of bullying on the victims, so empathic and sensitive responses can be employed when dealing with victims of bullying. Teachers are also in a useful position to manipulate the social workings of their classrooms. Pairing resilient with less resilient victims may allow not only for modelling of skills by the resilient victims, but also increase the social networks of those being rejected by their peers.

Parents. Parent education and involvement is also important. Parents, like teachers, need to be educated in the early signs of victimisation in their children. If parents are able to quickly detect changes in their children's functioning and wellbeing, they are more able to act swiftly to combat the problem in its early stages. Parents are also in the unique position to teach their children skills that the child may not acquire naturally. Parents often feel helpless when they discover that their child is being bullied at school, but if parents are educated about which skills and attitudes help their child to be resilient to the negative consequences of being bullied, then they can act as powerful change agents in their child's life.

Practitioners. The results of the current research also have implications for practitioners working in the helping professions, because they highlight the complete set of skills deficits that are common to all non-resilient victims of school bullying. This means that practitioners can implement strategies to teach the entire set of skills

necessary to combat the negative effects of bullying, rather than just one or two skills that are known to help victims cope with the bullying.

The findings also offer support for the use of group interventions when working with adolescent victims of school bullying. The current research used only small groups of participants, indicating that the program can possibly be used in both private and public settings. Private practitioners could potentially use the program in a one-on-one format, or wait until they have numerous referrals and implement the program in a group. Practitioners working in other settings, for example, schools, would be able to implement the program in small groups during school hours.

Recommendations for Future Research

The results of the current research could potentially be expanded into a number of areas. The program could be implemented in community settings or within schools, and examined for its efficacy in those settings. If the program were run in schools, teachers could be trained to run the program, which would minimise the stigma of needing 'professional help.' The program could also be modified to suit different age groups, ability bases, and cultural backgrounds.

Finally, the program could be modified and expanded for use with students with adverse circumstances apart from bullying. The resilience research shows that not all children and adolescents, when faced with adverse situations or trauma, will react the in the same way. This was found to be true when bullying was the adverse or traumatic experience. It therefore stands to reason that this might apply to students experiencing other difficulties. For example, students whose parents get divorced, who are ill or even die; or students who are experiencing their own health and psychological problems or disability, may react differently. The same methodological evaluation of resilience used in the present study could be used with these students in order to determine if there is a set of skills and attitudes that are allowing them to respond more effectively with their situations.

Conclusion

The results of the two studies reported in this thesis provide valuable information about the nature of bullying and the impact it has on adolescents, and how 'victimisation resilience' can be improved in victims of school bullying. This increased resilience allows victims to not only avoid the typical negative effects of school bullying, but to thrive in the school environment, and hopefully, into their adult lives. Given the devastating effects that victims of bullying can suffer, and the fact that a large proportion of school children are repeatedly exposed to victimisation by

their peers, development of programs to build victimisation resilience is essential to the wellbeing of school children worldwide. This research provides a step in the right direction, and further support for the use of cognitive behavioural interventions for adolescents.

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APPENDICES

APPENDIX A.

IMPACT OF EVENT SCALE & EMOTIONAL IMPACT SCALE

Instructions: Below is a list of thoughts, feelings and reactions that have been experienced by people after being bullied. Please indicate how frequently ***you*** experience each thought, feeling or reaction, ***immediately after*** being bullied, ***one day*** after being bullied, and ***one week*** after being bullied. If you do not typically have one of these thoughts, feelings or reactions after being bullied, please indicate (1) "**didn't experience this**". If you believe you have never been bullied, do not complete this page of the survey package (Part G).

Circle **1** if you **didn't** experience this item
Circle **2** if you experienced this item **a little**
Circle **3** if you experienced this item **quite a bit**
Circle **4** if you experienced this item **a lot**

Please circle a number in **EVERY** column

		Immediately After				1 Day After				1 Week After			
1.	I thought about being bullied when I didn't mean to.	1	2	3	4	1	2	3	4	1	2	3	4
2.	I felt angry or mad about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
3.	I avoided letting myself get upset when I thought about being bullied or was reminded of being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
4.	I felt embarrassed or ashamed about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
5.	I tried to remove the thought of being bullied from memory.	1	2	3	4	1	2	3	4	1	2	3	4
6.	I felt sad or depressed about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
7.	I had trouble falling asleep or staying asleep, because of pictures or thoughts about being bullied that came into my mind.	1	2	3	4	1	2	3	4	1	2	3	4
8.	I felt anxious or worried about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
9.	I had waves of strong feelings about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
10.	I felt guilty about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
11.	I had dreams about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
12.	I felt scared about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
13.	I stayed away from reminders of being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
14.	I felt lonely or alone about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
15.	I felt unsafe about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
16.	I tried not to talk about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
17.	I felt confused about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
18.	Pictures about being bullied popped into my mind.	1	2	3	4	1	2	3	4	1	2	3	4
19.	I felt stupid about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
20.	Other things kept making me think about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
21.	I was aware that I still had a lot of feelings about being bullied, but I didn't deal with them.	1	2	3	4	1	2	3	4	1	2	3	4
22.	I tried not to think about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
23.	Any reminder brought back feelings about being bullied.	1	2	3	4	1	2	3	4	1	2	3	4
24.	My feelings about being bullied were kind of numb.	1	2	3	4	1	2	3	4	1	2	3	4

APPENDIX B.

PLAIN LANGUAGE STATEMENT – PRINCIPALS

INVITATION TO PARTICIPATE IN A RESEARCH PROJECT
PROJECT INFORMATION STATEMENT—PRINCIPALS

Project Title: *Resilient Victims of Bullying*

Primary Investigator:
Emma Wade (PhD student) **Phone:** (03) 9925 7646
Supervisor:
Dr John Reece (Supervisor) **Phone:** (03) 9925 7512

Your school is invited to participate in a research project being conducted by RMIT University. This information sheet describes the project in straightforward language, or 'plain English'. Please read this sheet carefully and be confident that you understand its contents before deciding whether to give permission for your school to participate. If you have any questions about the project, please ask one of the investigators.

Who is involved in this research project? Why is it being conducted?
This study is a component of a PhD degree in the Division of Psychology, School of Health Sciences, RMIT University. The research is being supervised by Dr John Reece. This project has been approved by the RMIT University Human Research Ethics Committee, the Victorian Department of Education and Training, and the Catholic Education Office.

What is the project about? What are the questions being addressed?
Our aim is to explore the relationships between being resilient to the effects of being bullied and a number of measures that we believe will be related to the child's resilience, including – coping skills, self-concept (how a child feels about themselves), optimism, social skills, self-esteem, and social support. We will be using questionnaires completed by the students to obtain our data. Parents and teachers are not required to complete anything. We are conducting this research in order to learn more about the psychological and social factors involved in being resilient to being bullied. By having a better understanding about bullying, we hope to develop more effective treatments for dealing with the problem of bullying.

If I agree to my school's participation, what will be required?
As participants in this study the students at your school will be asked to complete a questionnaire package during their regular class time. The questionnaire package includes measures of bullying victimisation, general aspects of your students' behaviour, perceived wellness, general health, life satisfaction, and information about the impact of being bullied; your students will be given some simple instructions on completing the questionnaires, and then will write their responses to each item directly on the questionnaire package. Based on the results from the first questionnaire package, your students may be asked to complete a second questionnaire package, which incudes measures of bullying perpetration, coping skills, self-concept, individual protective factors, optimism, social skills, self-esteem, and social support. You are welcome to examine a copy of the questionnaire packages before providing consent. The total time required for each student to complete the questionnaires is 30 – 40 minutes; questionnaires are normally completed in regular class time, in a group setting.

What are the risks associated with participation?
The material in the questionnaires is not designed to be threatening, distressing, or embarrassing in any way. However, if any of your students are unduly concerned about any aspect their involvement in this study, we encourage them to contact the project supervisor, Dr Reece, immediately. Dr Reece will discuss their concerns with them confidentially, and suggest appropriate follow-up if necessary. Conducting research according to the highest ethical

standards is one of our main priorities. To this end, we liaise closely with each school involved in our research to make certain that an appropriate protocol is in place in the event that concerns arise. If you agree for your school to participate in this project we would like to meet with you or another appropriate person to discuss this.

What are the benefits associated with participation?

There may not be a direct benefit associated with your school's involvement, as the project is being conducted for research purposes; however, we are able to provide each school with a summary report of the whole school results along with comparison data from other schools.

What will happen to the information students provide?

Personal details such as students' names and addresses will not be required for this study; however, each student will be allocated a code number. This is a requirement of the Department of Education and Training. The list of code numbers and names will be held in confidence by a 3rd party not directly involved with the project. A student will be identified by one of the researchers only in the unlikely event that his or her responses are of concern. Any information that a student provides can be disclosed only if (1) it is to protect the student or others from harm, (2) a court order is produced, or (3) a student's parent/caregiver provides the researchers with written permission. Once all data is analysed, the list of names and code numbers will be destroyed. All data will be held in the strictest confidence. We are not interested in the results of individuals; and only group results will be reported. The results of the study will form the basis of a PhD research project, and may be submitted to a scholarly journal for publication. We will not provide anyone the results of individual students, but we may provide individual schools with their overall results.

What are the rights of the participants?

Participation in this study is on a voluntary basis. As such, you may withdraw your consent for your school's involvement at any time throughout the study. Also, each student or their parents/caregivers can choose not to participate, and can discontinue their involvement at any time. We obtain informed consent from both parents/caregivers and students.

Who should I contact if I have any questions?

Please do not hesitate to contact the project supervisor, Dr John Reece, or the principle investigator, Emma Wade, if you have questions or concerns about any aspect of your school's participation, either before providing consent or during the project. Dr Reece can be contacted on 9925-7512, or by e-mail at john.reece@rmit.edu.au. Emma Wade can be contacted on 9925-7646, or by email at s9805383@student.rmit.edu.au.

Thank you very much for your time.

Emma Wade, BAppSci (Hons)
(PhD Student)

John Reece, PhD MAPS
(Supervisor)

Any complaints about your participation in this project may be directed to the Secretary, RMIT Human Research Ethics Committee, University Secretariat, RMIT, GPO Box 2476V, Melbourne, 3001. The telephone number is (03) 9925 1745.
Details of the complaints procedure are available from the above address.

APPENDIX C.

PLAIN LANGUAGE STATEMENT – PARENTS/GUARDIANS

INVITATION TO PARTICIPATE IN A RESEARCH PROJECT
PROJECT INFORMATION STATEMENT—PARENTS/CAREGIVERS

Project Title: *Resilient Victims of Bullying*

Primary Investigator:
Emma Wade (PhD student) **Phone:** (03) 9925 7646
Supervisor:
Dr John Reece (Supervisor) **Phone:** (03) 9925 7512

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Your child is invited to participate in a research project being conducted by RMIT University. This information sheet describes the project in straightforward language, or 'plain English'. Please read this sheet carefully and be confident that you understand its contents before deciding whether to give permission for your child to participate. If you have any questions about the project, please ask one of the investigators.

Who is involved in this research project? Why is it being conducted?
This study is a component of a PhD degree in the Division of Psychology, School of Health Sciences, RMIT University. The research is being supervised by Dr John Reece. This project has been approved by the RMIT University Human Research Ethics Committee, the Victorian Department of Education and Training, and the Catholic Education Office.

Why has your child been approached?
Your child has been approached because they are currently completing either Year 7, 8, or 9 at school. These are the particular age groups that the project is interested in.

What is the project about? What are the questions being addressed?
Our aim is to explore the relationships between being resilient to the effects of being bullied and a number of measures that we believe will be related to the child's resilience, including – coping skills, self-concept (how a child feels about themselves), optimism, social skills, self-esteem, and social support. We will be using questionnaires completed by the students to obtain our data. Parents and teachers are not required to complete anything. We are conducting this research in order to learn more about the psychological and social factors involved in being resilient to being bullied. By having a better understanding about bullying, we hope to develop more effective treatments for dealing with the problem of bullying.

If I agree to participate, what will I be required to do?
As a participant in this study your child will be asked to complete a questionnaire package during their regular class time. The questionnaire package includes measures of bullying victimisation, general aspects of your child's behaviour, perceived wellness, general health, life satisfaction, and information about the impact of being bullied; your child will be given some simple instructions on completing the questionnaires, and then will write their response to each item directly on the questionnaire package. Based on the results from the first questionnaire package, your child may be asked to complete a second questionnaire package, which includes measures of bullying perpetration, coping skills, self-concept, individual protective factors, optimism, social skills, self-esteem, and social support. You are welcome to examine a copy of the questionnaire packages before providing consent. The total time required for your child to complete the questionnaires is 30 – 40 minutes; questionnaires are normally completed in regular class time, in a group setting.

What are the risks associated with participation?
The material in the questionnaires is not designed to be threatening, distressing, or embarrassing in any way. However, if you and/or your child are unduly concerned about any aspect of your child's involvement in this study, we would encourage you to contact the project supervisor, Dr Reece,

immediately. Dr Reece will discuss your concerns with you confidentially, and suggest appropriate follow-up if necessary.

What are the benefits associated with participation?
There may not be a direct benefit associated with your or your child's participation, as the project is being conducted for research purposes.

What will happen to the information I provide?
Personal details such as your child's name and address will not be required for this study; however, your child will be allocated a code number. This is a requirement of the Department of Education and Training. The list of code numbers and names will be held in confidence by a 3rd party not directly involved with the project. Your child will be identified by one of the researchers only in the unlikely event that his or her responses are of concern. Any information that your child provides can be disclosed only if (1) it is to protect your child or others from harm, (2) a court order is produced, or (3) you provide the researchers with written permission. Once all data is analysed, the list of names and code numbers will be destroyed. All data will be held in the strictest confidence. We are not interested in the results of individuals; and only group results will be reported. The results of the study will form the basis of a PhD research project, and may be submitted to a scholarly journal for publication. We will not provide anyone the results of individual students, but we may provide individual schools with their overall results.

What are my and my child's rights as participants?
Participation in this study is on a voluntary basis. As such, you may withdraw your consent for your child to participate and discontinue your child's participation at any time throughout the study. Also, your child can choose not to participate, and can discontinue their involvement at any time. We obtain informed consent from both parents and students. You also have the right to request that your child's results be withdrawn from the study. If you request this, we will immediately destroy your child's data. You also have the right to have any questions answered at any time.

Who should I contact if I have any questions?
Please do not hesitate to contact the project supervisor, Dr John Reece, or the principle investigator, Emma Wade, if you have questions or concerns about any aspect of your child's participation, either before providing consent or during the project. Dr Reece can be contacted on 9925-7512, or by e-mail at john.reece@rmit.edu.au. Emma Wade can be contacted on 9925-7646, or by email at s9805383@student.rmit.edu.au.

If you are happy for your child to participate in this project, please sign the attached informed consent form and ask your child to return it to school. Your child cannot participate unless this form is signed.

Thank you very much for your time.

Emma Wade, BAppSci (Hons)
(PhD Student)

John Reece, PhD MAPS
(Supervisor)

Any complaints about your participation in this project may be directed to the Secretary, RMIT Human Research Ethics Committee, University Secretariat, RMIT, GPO Box 2476V, Melbourne, 3001. The telephone number is (03) 9925 1745.
Details of the complaints procedure are available from the above address.

APPENDIX D.

PLAIN LANGUAGE STATEMENT – PARTICIPANTS

INVITATION TO PARTICIPATE IN A RESEARCH PROJECT
PROJECT INFORMATION STATEMENT—PARTICIPANTS

Project Title: *Resilient Victims of Bullying*

Primary Investigator:
Emma Wade (PhD student) **Phone:** (03) 9925 7646
Supervisor:
Dr John Reece (Supervisor) **Phone:** (03) 9925 7512

RMIT UNIVERSITY
Portfolio Office
Plenty Road
Bundoora VIC 3083
Australia
PO Box 71
Bundoora VIC 3083
Australia
Tel +61 3 9925 7186
Fax +61 3 9925 7199
www.rmit.edu.au
SCHOOL OF HEALTH SCIENCES
SCIENCE, ENGINEERING AND TECHNOLOGY PORTFOLIO

You are invited to participate in a research project being conducted by RMIT University. This information sheet describes the project in straightforward language, or 'plain English'. Please read this sheet carefully and be confident that you understand its contents before deciding whether to participate. If you have any questions about the project, please ask one of the investigators.

Who is involved in this research project? Why is it being conducted?
This study is a component of a PhD degree in the Division of Psychology, School of Health Sciences, RMIT University. The research is being supervised by Dr John Reece. This project has been approved by the RMIT University Human Research Ethics Committee, the Victorian Department of Education and Training, and the Catholic Education Office.

Why have you been approached?
You have been approached because you are currently completing either Year 7, 8, or 9 at school. You are in the particular age group that the project is interested in.

What is the project about? What are the questions being addressed?
Our aim is to explore the relationships between being resilient to the effects of being bullied and a number of measures that we believe will be related to students' resilience, including – coping skills, self-concept (how a student feels about themselves), optimism, social skills, self-esteem, and social support. We will be using questionnaires completed by you to obtain our data. Parents and teachers are not required to complete anything. We are conducting this research in order to learn more about the psychological and social factors involved in being resilient to being bullied. By having a better understanding about bullying, we hope to develop more effective treatments for dealing with the problem of bullying.

If I agree to participate, what will I be required to do?
As a participant in this study you will be asked to complete a questionnaire package during your regular class time. The questionnaire package includes measures of bullying victimisation, general aspects of your behaviour, perceived wellness, general health, life satisfaction, and information about the impact of being bullied; you will be given some simple instructions on completing the questionnaires, and then write your response to each item directly on the questionnaire package. Based on the results from the first questionnaire package, you may be asked to complete a second questionnaire package, which incudes measures of bullying perpetration, coping skills, self-concept, individual protective factors, optimism, social skills, self-esteem, and social support. You are welcome to examine a copy of the questionnaire packages before providing consent. The total time required for you to complete the questionnaires is 30 – 40 minutes; questionnaires are normally completed in regular class time, in a group setting.

What are the risks associated with participation?
The material in the questionnaires is not designed to be threatening, distressing, or embarrassing in any way. However, if you are unduly concerned about any aspect of your involvement in this study, we would encourage you to contact the project supervisor, Dr Reece, immediately. Dr

Reece will discuss your concerns with you confidentially, and suggest appropriate follow-up if necessary.

What are the benefits associated with participation?
There may not be a direct benefit associated with your participation, as the project is being conducted for research purposes.

What will happen to the information I provide?
Personal details such as your name and address will not be required for this study; however, you will be allocated a code number. This is a requirement of the Department of Education and Training. The list of code numbers and names will be held in confidence by a 3rd party not directly involved with the project. You will be identified by one of the researchers only in the unlikely event that your responses are of concern. Any information that you provide can be disclosed only if (1) it is to protect you or others from harm, (2) a court order is produced, or (3) you provide the researchers with written permission. Once all data is analysed, the list of names and code numbers will be destroyed. All data will be held in the strictest confidence. We are not interested in the results of individuals; and only group results will be reported. The results of the study will form the basis of a PhD research project, and may be submitted to a scholarly journal for publication. We will not provide anyone the results of individual students, but we may provide individual schools with their overall results.

What are my rights as a participant?
Participation in this study is on a voluntary basis. As such, you may withdraw your consent to participate and discontinue your participation at any time throughout the study. We obtain informed consent from both parents/caregivers and students. You also have the right to request that your results be withdrawn from the study. If you request this, we will immediately destroy your data. You also have the right to have any questions answered at any time.

Who should I contact if I have any questions?
Please do not hesitate to contact the project supervisor, Dr John Reece, or the principle investigator, Emma Wade, if you have questions or concerns about any aspect of your participation, either before providing consent or during the project. Dr Reece can be contacted on 9925-7512, or by e-mail at john.reece@rmit.edu.au. Emma Wade can be contacted on 9925-7646, or by email at s9805383@student.rmit.edu.au.

If you are happy to participate in this project, please sign the attached informed consent form.

Thank you very much for your time.

Emma Wade, BAppSci (Hons)
(PhD Student)

John Reece, PhD MAPS
(Supervisor)

Any complaints about your participation in this project may be directed to the Secretary, RMIT Human Research Ethics Committee, University Secretariat, RMIT, GPO Box 2476V, Melbourne, 3001. The telephone number is (03) 9925 1745.
Details of the complaints procedure are available from the above address.

APPENDIX E.

CONSENT FORM – PARTICIPANTS

RMIT UNIVERSITY

Division of Psychology
School of Health Sciences

RMIT HUMAN RESEARCH ETHICS COMMITTEE

Prescribed Consent Form For Persons Participating In Research Projects Involving Interviews, Questionnaires or Disclosure of Personal Information

PORTFOLIO OF SCIENCE, ENGINEERING AND TECHNOLOGY
DIVISION OF PSYCHOLOGY, SCHOOL OF HEALTH SCIENCES

Name of participant:				
Project Title:		**Resilient Victims of Bullying**		
Name(s) of investigators:	(1)	Emma Wade (PhD student)	Phone:	9925-7646
	(2)	John Reece (Supervisor)	Phone:	9925-7512

1. I have received a statement explaining the interview/questionnaire involved in this project.
2. I consent to participate in the above project, the particulars of which--including details of the interviews or questionnaires--have been explained to me.
3. I authorise the investigator or his or her assistant to interview me or administer a questionnaire.
4. I acknowledge that:

   (a) Having read Plain Language Statement, I agree to the general purpose, methods and demands of the study.
   (b) I have been informed that I am free to withdraw from the project at any time.
   (c) The project is for the purpose of research and/or teaching. It may not be of direct benefit to me.
   (d) The privacy of the information I provide will be safeguarded. However should information of a private nature need to be disclosed for moral, clinical or legal reasons, I will be given an opportunity to negotiate the terms of this disclosure.
   (e) The security of the research data is assured during and after completion of the study. The data collected during the study may be published, and a report of the project outcomes will be provided to your school. Any information which will identify me will not be used.

I consent to participate in the above project:

Signature: _____ Date: _____

(Signature of Participant)

Any complaints about your participation in this project may be directed to the Secretary, RMIT Human Research Ethics Committee, University Secretariat, RMIT, GPO Box 2476V, Melbourne, 3001. The telephone number is (03) 9925 1745. Details of the complaints procedure are available from the above address.

APPENDIX F.

CONSENT FORM – PARENTS/GUARDIANS

RMIT UNIVERSITY

Division of Psychology
School of Health Sciences

RMIT HUMAN RESEARCH ETHICS COMMITTEE

Prescribed Consent Form For Persons Participating In Research Projects Involving Interviews, Questionnaires or Disclosure of Personal Information

PORTFOLIO OF SCIENCE, ENGINEERING AND TECHNOLOGY
DIVISION OF PSYCHOLOGY, SCHOOL OF HEALTH SCIENCES

Name of participant (child):				
Project Title:		**Resilient Victims of Bullying**		
Name(s) of investigators:	(1) (2)	Emma Wade (PhD student) John Reece (Supervisor)	Phone: Phone:	9925-7646 9925-7512

1. I have received a statement explaining the interview/questionnaire involved in this project.
2. I consent for my child to participate in the above project, the particulars of which - including details of the interviews or questionnaires - have been explained to me.
3. I authorise the investigator or his or her assistant to interview me or administer a questionnaire.
4. I acknowledge that:

   (f) Having read Plain Language Statement, I agree to the general purpose, methods and demands of the study.
   (g) I have been informed that I am free to withdraw from the project at any time and to withdraw any unprocessed data previously supplied.
   (h) The project is for the purpose of research and/or teaching. It may not be of direct benefit to me.
   (i) The privacy of the personal information I provide will be safeguarded and only disclosed where I have consented to the disclosure or as required by law.
   (j) The security of the research data is assured during and after completion of the study. The data collected during the study may be published, and a report of the project outcomes will be provided to your child's school and you, upon request. Any information which will identify me will not be used.

Where participant is under 18 years of age:

I **consent** / **do not consent** (please circle)

to the participation of _____ (child's name) in the above project.

Signature: _____ **Date:** _____

(Signature of parent or guardian)

Any complaints about your participation in this project may be directed to the Secretary, RMIT Human Research Ethics Committee, University Secretariat, RMIT, GPO Box 2476V, Melbourne, 3001. The telephone number is (03) 9925 1745.
Details of the complaints procedure are available from the above address

APPENDIX G.

RMIT ETHICS APPROVAL LETTER (STUDY 1 – PHASES 1 & 2)

MEMORANDUM

RMIT UNIVERSITY

APPLIED SCIENCE

FROM: *Lina Papillo, Secretary, SET Portfolio Human Research Ethics Interim Sub-Committee*
PHONE: *9925-6102*
FAX: *9925-6107*
E-MAIL: *lina.papillo@rmit.edu.au*

Faculty of Applied Science

Bundoora Campus
PO Box 71
Bundoora 3083
Victoria Australia

Tel +61 3 9925 6102
Fax +61 3 9925 6107
E-mail
wendy.fleming@rmit.edu.au
http://www.rmit.edu.au

TO: Ms Emma Wade, School of Health Sciences
DATE: 13 October 2004
RE: Application for ethics approval
CC: Dr John Reece, Chair, SET Portfolio Human Research Ethics Interim Sub-Committee

Your application for ethics approval for your research project titled, *Resilient Victims of Bullying*, has been considered by the Executive of the SET Portfolio Human Research Ethics Sub-Committee (Non-Biomedical). The required changes to your application were conveyed to you directly by the Executive. You have addressed these issues adequately; therefore, you may consider your project, as it is described in your revised application, ***APPROVED*** for a period of three years from the date on this memo.

Please note the following information, which pertains to all HREC approved projects:

- Projects are normally approved for a period of three years from the date of this letter, but this is conditional on the receipt of annual reports. If your work is completed within twelve months a final report, only, is required. The relevant forms are available from the Human Research Ethics Committee web site. The address for this site is: http://www.rmit.edu.au/council/hrec.

- If, as you proceed with your investigation you find reason to amend your research method, you should advise the Chair of the RMIT University Human Research Ethics Committee (Portfolio of Science, Engineering and Technology Interim Sub-Committee) and seek approval of the proposed changes. If you decide to discontinue your research before its planned completion you must also advise the Chair of the Sub-Committee of the circumstances.

- In the event of any adverse effects on subjects, or unforeseen events, which may affect the ethical acceptability of your project, you should immediately report to the Chair of the Sub-Committee.

- Also we were recently advised that any research data, which identifies people and that is stored in electronic form, should be held on CD, Zip Disk or diskette. It should not be stored on a computer that is connected to the web or to a network.

Let me take this opportunity to wish you all the best with your research. If any issues regarding ethics arise during the running of the project, please do not hesitate to contact the Chair of the Sub-Committee.

Sincerely

Lina Papillo
Secretary, SET Portfolio Human Research Ethics Interim Sub-Committee

APPENDIX H.

DEPARTMENT OF EDUCATION & TRAINING ETHICS APPROVAL LETTER

Department of Education & Training

Office of Learning and Teaching

SOS002799

Ms Emma Wade
13 Marlow Place
ELTHAM 3095

Dear Ms Wade

Thank you for your application of 6 October 2004 in which you request permission to conduct a research study in government schools titled: *Resilient victims of bullying: psychosocial predictors of positive outcomes.*

I am pleased to advise that on the basis of the information you have provided your research proposal is approved in principle subject to the conditions detailed below.

1. Should your institution's ethics committee require changes or you decide to make changes, these changes must be submitted to the Department of Education and Training for its consideration before you proceed.

2. You obtain approval for the research to be conducted in each school directly from the principal. Details of your research, copies of this letter of approval and the letter of approval from the relevant ethics committee are to be provided to the principal. The final decision as to whether or not your research can proceed in a school rests with the principal.

3. No student is to participate in this research study unless they are willing to do so and parental permission is received. Sufficient information must be provided to enable parents to make an informed decision and their consent must be obtained in writing.

4. As a matter of courtesy, you should advise the relevant Regional Director of the schools you intend to approach. An outline of your research and a copy of this letter should be provided to the Regional Director.

5. Any extensions or variations to the research proposal, additional research involving use of the data collected, or publication of the data beyond that normally associated with academic studies will require a further research approval submission.

2 Treasury Place
East Melbourne, Victoria 3002
Telephone: +61 3 9637 2000
DX 210083

GPO Box 4367
Melbourne, Victoria 3001

Victoria
The Place To Be

6. At the conclusion of your study, a copy or summary of the research findings should be forwarded to the Research and Development Branch, Department of Education and Training, Level 2, 33 St Andrews Place GPO Box 4367 Melbourne 3001.

I wish you well with your research study. Should you have further enquiries on this matter, please contact Louise Dressing, Senior Policy Officer, Research on 9637 2349.

Yours sincerely

John McCarthy
Assistant General Manager
Research and Innovation Division

13 / 1 / 2005

enc

APPENDIX I.

CATHOLIC EDUCATION OFFICE ETHICS APPROVAL LETTER

CATHOLIC EDUCATION OFFICE

JAMES GOOLD HOUSE
228 VICTORIA PARADE
EAST MELBOURNE VIC 3002

Telephone: (03) 9267 0228
Facsimile: (03) 9415 9325

Correspondence: PO Box 3, East Melbourne Vic 3002
Email: director@ceo.melb.catholic.edu.au
ABN 85 176 448 204

In Reply Please Quote:
GE04/0009

10 November 2004

Ms E Wade
School of Health Sciences
RMIT University
PO Box 71
BUNDOORA VIC 3083

Dear Ms Wade

I am writing with regard to your letter received by this Office on 27 October 2004 in which you referred to your forthcoming research project entitled: *Resilient Victims of Bullying: Psychological Predictors of Positive Outcomes*. I understand that this research is part of your doctoral studies at RMIT University. You have asked approval to approach thirteen Catholic secondary schools in the Archdiocese of Melbourne as you wish to involve students in Years 7 to 9.

I am pleased to advise that your research proposal is approved in principle subject to the following standard conditions.

1. The decision as to whether or not research can proceed in a school rests with the School Principal. So you will need to obtain approval directly from the Principal of each school that you wish to involve.

2. You should provide each Principal with an outline of your research proposal and indicate what will be asked of the school. A copy of this letter of approval, and a copy of notification of approval from the University's Ethics Committee, should also be included.

3. A Criminal Record check is necessary for all researchers visiting schools. A certificate may be obtained on application to the Victoria Police and this must be shown to the Principal before starting the research in each school.

4. No student is to participate in the research study unless s/he is willing to do so and informed consent is given in writing by a parent/guardian.

...2

5. You should provide the names of schools which agree to participate in the research project to the Knowledge Management Unit of this Office.

6. Any substantial modifications to the research proposal, or additional research involving use of the data collected, will require a further research approval submission to this Office.

7. Data relating to individuals or schools are to remain confidential.

8. Since participating schools have an interest in research findings, you should discuss with each Principal ways in which the results of the study could be made available for the benefit of the school community.

9. At the conclusion of the study, a copy or summary of the research findings should be forwarded to this Office.

I wish you well with your research study. If you have any queries concerning this matter, please contact Mr Mark McCarthy of this Office.
The email address is mmccarthy@ceo.melb.catholic.edu.au.

Good wishes

Yours sincerely

Susan Pascoe
DIRECTOR OF CATHOLIC EDUCATION

APPENDIX J.

SCHOOL SAFETY SURVEY – REVISED (REVERSED VERSION)

Instructions: Have you ever performed any of the following behaviours at this school? Please tick the appropriate box for each type of bullying. Remember, your answers will be confidential, so please answer honestly.

Types of bullying	Once or more a day	Most days	Once a week	Less often	Never
Teased or called others names					
Commented about someone's family, country of birth or religion					
Left someone out of things on purpose					
Threatened someone					
Hit, punched, pushed or kicked someone					
Forced someone to give you money or belongings when they didn't want to					
Commented about the way someone looks					
Touched someone in ways they didn't want to be touched					
Damaged or disturbed someone's locker on purpose					
Laughed at someone (in a hurtful/bad way)					

APPENDIX K.

Daily Diary (Page 1 & 2)

Name: _____ Date: _____

BRAVO!

How do you feel about yourself today?

(Please colour in up to how you feel)

Amazing
Above average
Average
Below average
Terrible

My day today was… (Please tick one)

- ☐ **Fantastic**
- ☐ **Really good**
- ☐ **Good**
- ☐ **Not good**

What made your day good?

_____
_____
_____
_____
_____

- ☐ **Really bad**
- ☐ **Horrible**
- ☐
- ☐

What made your day bad?

_____
_____
_____
_____
_____

Place an **X** on the line to show how lonely you felt today…

Extremely lonely — Quite lonely — A little lonely — Not lonely at all

Did you get bullied today? ☐ Yes ☐ No

If yes, tick what type of bullying happened.

Laughed at ☐ Locker damaged ☐ Threatened ☐ Left out on purpose ☐
Teased/called names ☐ Hit/punched etc ☐ Comments about your looks ☐
Forced to give money ☐ Comments about your family/country of origin ☐

If you were bullied or something bad happened today…

What did you do to cope? Tick up to 3

- ☐ Talk to others about the problem
- ☐ Wished for a miracle
- ☐ Worked hard
- ☐ Decided I couldn't cope
- ☐ Problem solved to find solutions
- ☐ Cried
- ☐ Did something fun
- ☐ Blamed myself

How good do you think your coping was?

- ☐ Extremely good
- ☐ Quite good
- ☐ Good
- ☐ Neither good or bad
- ☐ Bad
- ☐ Quite bad
- ☐ Extremely bad

If you chose to, who could you talk to about your problems?

- ☐ A friend I know at school
- ☐ A friend I know outside of school
- ☐ Mum/Dad
- ☐ Grandparent
- ☐ Other relative
- ☐ A teacher
- ☐ School counsellor/other professional
- ☐ Police

When I think about how tomorrow will be, I feel…

- ☐ Great
- ☐ Good
- ☐ Fine
- ☐ Neither good or bad
- ☐ Not fine
- ☐ Bad
- ☐ Awful

When I think about how my future will be, I feel…

- ☐ Great
- ☐ Good
- ☐ Fine
- ☐ Neither good or bad
- ☐ Not fine
- ☐ Bad
- ☐ Awful

Today at recess and lunch I ate/played…

- ☐ By myself
- ☐ With one other person
- ☐ With a couple of other people
- ☐ With lots of other people

APPENDIX L.

BRAVO MANUAL, STUDENT WORKBOOK AND RELATED INTERVENTION PROGRAM MATERIALS

Please refer to attached cd for Appendix AA materials.

APPENDIX M.

RMIT ETHICS APPROVAL LETTER (STUDY 2)

RMIT UNIVERSITY

SCIENCE, ENGINEERING AND TECHNOLOGY PORTFOLIO

28th June 2006

Portfolio Office

Plenty Road
Bundoora VIC 3083
Australia

PO Box 71
Bundoora VIC 3083
Australia

Tel. +61 3 9925 7186
Fax +61 3 9925 7098
www.rmit.edu.au

Emma Wade
13 Marlow Place
Eltham VIC 3095

Dear Emma

SETNBAPP 47 – 06 WADE The resilient Victims of Bullying Psychosocial Correlates of Positive Outcomes (Phase 3)

Thank you for submitting an application for Human Ethics Approval.

Some required changes to your application for Ethics approval for your project titled***: The resilient Victims of Bullying Psychosocial Correlates of Positive Outcomes (Phase3),*** were brought to your attention in a memo dated June 19, 2006. You have addressed all of the issues raised in that memo appropriately. Therefore, you may consider your project, as it is described in your revised application **APPROVED** for a period of three years from the date on this letter.

Please note the following information, which pertains to all HREC approved projects:

- Projects are normally approved for a period of three years from the date of this letter, but this is conditional on the receipt of annual reports. If your work is completed within twelve months a final report, only is required. The relevant forms are available from the Human Research Ethics Committee web site. The address for this is: http://www.rmit.edu.au/council/hrec
- If, as you proceed with your investigation you find reason to amend your research method, you should advise the Chair of the RMIT University Human Research Ethics Committee (Portfolio of Science, Engineering & Technology Sub Committee) and seek approval of the proposed changes. If you decide to discontinue your research before its planned completion you must also advise the Chair of the Sub-Committee of the circumstances.
- In the event of any adverse effects on subjects, or unforseen events, which may affect the ethical acceptability of you project, you should immediately report to the Chair of the Sub-Committee.
- Also we were recently advised that any research data, which identifies people and that is stored in electronic form, should be held on CD, Zip Disk or diskette. It should not be stored on a computer that is connected to the web or to a network.

Let me take this opportunity to wish you all the best with your research. If any issues regarding ethics arise during the running of the project, please do not hesitate to contact the Chair of the Sub-Committee

Yours faithfully,

Julie Barnett
Secretary, SET Portfolio
HREC Sub-committee (Non Biomedical)

cc: Dr John Reece, Chair SET Portfolio HREC Sub-Committee (non Biomedical)
Dr Emma Little SOHS

Quality Endorsed University

APPENDIX N.

VISUAL INSPECTION INSTRUCTIONS AND CRITERIA

Dear Rater,

Thank you again for volunteering to participate as a visual inspector for this research project. Please find below the instructions on how to complete the visual inspection task.

Each graph represents the 10 participants' scores on one particular variable (18 variables in total). Each participant has three scores, which represent their obtained score at pre-intervention, post-intervention, and 3-month follow-up. Standard Error of Measurement (SEm) bars have also been included. These show the range in which we can be 95% confident that the participant's true score lies. You are required to assess the level of change from:

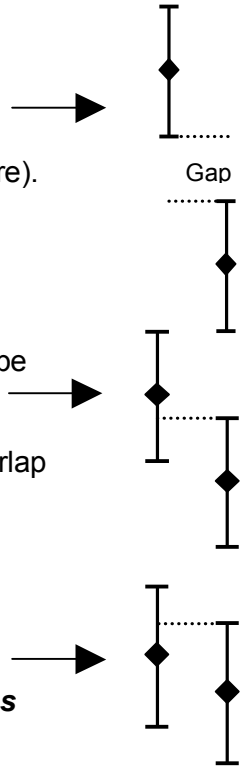
a) Pre-intervention to Post-intervention
b) Post-intervention to Follow-up
c) Pre-intervention to Follow-up

Please use the criteria below to assess the level of change each participant has achieved on each of the variables.

4. Substantial change – data shows that the intervention resulted in a significant increase or decrease in the variable (increase towards the maximum possible score; decrease towards the minimum possible score). There is a gap between the Standard Error of Measurement bars.

5. Moderate change – data shows that the intervention resulted in a clear increase to decrease in the variable; but the change is not sufficient to be considered substantial. There is minimal overlap between the Standard Error of Measurement bars (i.e., the end of one SEm bar ***does not*** overlap past the mid-point of the other SEm bar).

6. No change – data shows that the intervention resulted in no change in the variable across time. There is significant overlap between the Standard Error of Measurement bars (i.e., the end of one SEm bar ***does*** overlap past the mid-point of the other SEm bar).



Please complete the attached sheets for each variable (1 – 18), indicting the level of change you believe the data best represents. Thank you.