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Psychological Well-Being in the Victims of Bullying Among Primary School Children

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Running head: PSYCHOLOGICAL WELL-BEING IN THE VICTIMS
OF BULLYING

Psychological Well-Being
In The Victims of Bullying
Among Primary School Children
Catherine A. Rice

A report submitted as a partial requirement for the degree of
Bachelor of Arts with Honours in Psychology at
Edith Cowan University
Date of Submission: 2.11.1998

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Abstract

A replication and extension of Rigby and Slee's (1993) study and an investigation of Seligman, Reivich, Jaycox and Gillham's (1995) theory of self-esteem was conducted in one private primary school in Western Australia. The aim of the study was to examine the relationship between the age and gender of victims of bullying with self-esteem of the students and their attitudes towards attending school (Rigby & Slee, 1993), and their explanatory style (Seligman et al., 1995). Four anonymous questionnaires: Peer Relations Assessment Questionnaire (Rigby & Slee, 1997), Self-Esteem Inventory (Coopersmith, 1989), Children's Attributional Style Questionnaire (Seligman, Kaslow, Alloy, Peterson, Tanenbaum & Abramson, 1984) and Liking for School Scale (Rigby & Slee, 1993), were administered to 84 (38 male, 46 female) students in grades 5 ($N = 14$), 6 ($N = 40$) and 7 ($N = 30$). The results of three standard multiple regression analyses did not support the three hypotheses: That the victims of bullying will have low self-esteem, a pessimistic explanatory style and dislike for school. However, the patterns of scores for two groups of students suggests that: (i) children who are consistently bullied have low self-esteem and a pessimistic explanatory style; (ii) some children appear to be psychologically resilient to the effects of bullying. The implications from these findings suggests that intervention programmes encourage children to recognise and challenge their negative thoughts. It is suggested that future research endeavours to examine the type of behavioural response styles children use when bullied by peers at school.

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Psychological Well-Being
In Victims of Bullying
Among Primary School Children

Bullying by peers at school is not a new phenomenon however, it has only recently attracted societal and scientific interest. The impetus for this interest was the concerted effort of Professor Dan Olweus (1993) to investigate the nature and extent of the problem in Norway, after the media release of the tragic consequences associated with bullying. In Australia, Rigby (1996; 1997b; 1998) and Slee (1995a, 1995b) have been noted as the foremost researchers of bullying among primary and secondary school aged children. Together they have constructed a questionnaire to suit the Australian children and the Australian school system (Rigby & Slee, 1993). The result has been an extensive data base containing facts such as, age and gender trends and differences, and social, academic, mental and physical health problems associated with bullying (Rigby, 1998). An area of paramount interest for these researchers has been the association between bullying and self-esteem.

Research in other countries such as America, Canada and Ireland has presented facts that concurs with findings in Australia and Scandinavia, notably that the prevalence of the problem is higher than expected. Furthermore, research has begun to systematically uncover behaviours and similar characteristics in both the victims of bullying and the children who bully. The findings from this research have been used to facilitate the development of antibullying programmes, whose goal is to reduce the incidence of bullying and to promote social skills that enhance interpersonal relationships.

Another field of research inquiring into child health issues concerns the prevention and intervention of childhood depression. The findings of Seligman, Reivich, Jaycox and Gillham (1995) suggests that children's perceived self-efficacy in mastering of a negative situation is associated with high self-esteem. According to Seligman et al., self-esteem is comprised of two components termed: feeling good and doing well in the world. Their premise is, to feel good, that is to have high self-esteem (affect component), is dependent on doing well, perceived coping against adversities (behavioural and cognitive components). Hence, is an action-oriented approach. That is, the person actively changes their behaviour, or their thoughts, or both to produce psychological well-being that inadvertently empowered the person against other adversities. Seligman, Kaslow, Alloy, Peterson, Tatenbaum and Abramson (1984) have constructed a questionnaire which measures a child's explanatory style described as a mental state associated with the doing well component of self-esteem.

To date, it appears research into bullying and self-esteem has investigated the feeling side or the global sense of self-esteem. Therefore, the present study aimed to investigate the association between bullying and both the affect and cognitive components of self-esteem.

The present study's literature review serves to present the most current information on bullying interlinked with the Seligman et al's., (1995) theory. As the intention of the present study was to focus on the self-esteem of the victim, facts on intervention programmes have not been included.

Research into children who are victimised and children who display bullying behaviours, was pioneered by Professor Dan Olweus in Scandinavia during the late 1960's (Besag, 1989; Farrington, 1993; Olweus, 1993; Rigby, 1996). In 1982, public interest into bullying heightened in Scandinavia after three boys aged between 10 to 14 years committed suicide as a consequence of bullying (Olweus, 1993). These tragedies fuelled a nationwide campaign, by the Norwegian Ministry of Education, into the nature and extent of bullying in primary and secondary schools throughout Scandinavia (Olweus, 1993). The survey revealed that approximately 15% (84,000) of the total 568,000 Norwegian students, between the ages of 8-16 years, had been involved in bully/victim incidents during 1983-1984, that is, approximately one student in seven (Olweus, 1993).

Global Incidence Rates of Bullying

This research stimulated interest by psychologists and social scientists from other countries. One study conducted in England by Smith (1991) with 2,000 students from 7 primary schools and 4 secondary schools, reported 30% of the students were involved in bully/victim behaviours. A staggering one in five students was bullied and one in ten students bullied their peers at school. Similar results were recorded by Boulton and Underwood (1992), with a sample of 296 English pupils aged between 8-12 years. Twenty one percent of the students reported being bullied and 17% reported to have bullied fellow students. Both studies were conducted in the Yorkshire area and both used a modified version of the bullying questionnaire constructed by Olweus (1993). These studies suggest a much higher incidence of bullying in English schools compared to the

Scandinavian schools, and that the size of the student population of the school did not appear to affect the size of the problem.

Another U.K. study (Mellor, 1994) of 10 Scottish secondary schools, using the same Norwegian methodology, revealed results similar in incidence and trends to those found by Olweus (1993). That is, 6% of the Scottish students reported they had been bullied and 4% reported having bullied other students. Mellor expressed surprise at the different incidence rates of students who were bullied at each school which ranged from 2.4% in one school to 15% in another school. Mellor was unable to explain the difference by factors such as, size of the school, the student's academic ability or social class of the parents. Research now indicates however, that the school's ethos, particularly one that adheres to respect and caring for fellow peers, is a significant factor in deterring bullying (Besag, 1989; Olweus, 1993; Rigby, 1996; Tattum, 1989).

In the United States of America, Perry, Kusel and Perry (1988) used peer nominations to assess the extent of bullying in 165 children and found one in ten students were selectively targeted for abuse by their peers. Furthermore, the results suggested that the pattern of bully/victim incidents was established by upper primary school (Perry et al., 1988).

During the period 1991 to 1996, twenty-six thousand Australian primary and secondary school students, with ages ranging from 8-18 years, have completed the Peer Relations Questionnaire (Rigby, 1997b). The data obtained indicated 50% of the students had been victims of bullying over a twelve month period and that one in six students from public or private schools were bullied weekly or more often (Rigby, 1998). In Western Australia, one in nine or 31,000 primary and secondary school students were found to have experienced bullying

by peers at school during a six month period (Zubrick, Silburn, Gurrin, Teoh, Shepherd, Carlton & Lawrence, 1997). Information was gathered from parent and teacher reports for both primary and secondary aged pupils, and additional self-reports were obtained from secondary students (Zubrick et al., 1997).

Although different methodologies have been used to measure the incidence of bullying in these studies, results conclusively indicate that bullying is a serious problem which occurs to some extent in most schools, independent of the number of students at the school. The incidence of the students experiencing bullying in the aforementioned studies ranges from an appalling one in ten to one in five. Incidence rates were calculated by including only those students who report that they have been bullied frequently (Olweus, 1993; Rigby, 1996). These figures further suggest that the incidence of bullying in Scandinavia, Scotland and the U.S.A., is approximately half that experienced in Australia and England however, certain factors must be stressed when interpreting these results.

First, the information in part is based on student's self-reports of their involvement in bullying. Self-reports often raise the issue of accuracy of the information. However, Rigby (1996) reports students completing the Peer Relations Questionnaire have been found to take it seriously. This fact has been supported by data obtained yielding consistent results on similar questions (Rigby, 1996). Furthermore, self-reports and peer nominations have found to be closely related (Rigby, 1996).

Second, the different cultural and societal attitudes and values towards bullying and what is construed as bullying behaviour, may influence the varying rates of bully/victim problems recorded by the countries. This highlights the need for an international definition of bullying behaviour (Besag, 1989).

DEFINING BULLYING

In Scandinavia, bullying was originally defined as “mobbing”, meaning when one or more persons harass another (Olweus, 1993, p.8). However, Olweus (1993, p.9) found this term to be inadequate and broadened the definition to include the concept of the attacks being repetitious and long-term, and that more than one student may be involved: “a student is being bullied or victimised when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more students”.

Another Scandinavian, Roland (1989, p.21) also emphasised the long-term aspect introduced by Olweus (1993) and stressed that the victim was trapped in an escapable situation and, that there was a power play involved in the interaction between the victim and the bully:

“Bullying is longstanding violence, physical or psychological, conducted by an individual or a group and directed against an individual who is not able to defend himself in the actual situation”.

English researchers Stephenson and Smith (1989) further advocated the aggressive nature of bullying, and the specific roles exhibited by the bully and the victim. That is, the bully intentionally used aggression to cause distress to and dominate the victim and to gain group status. Conversely, the victim was found to be powerless against his/her attacker/s and was perceived to lose group status. Thus, Stephenson and Smith describe an imbalance of power between the parties involved. Furthermore, the intention of the act noted by the researchers implied the notion of victimisation (Arora, 1996).

In fact, in America bullying is termed victimisation. Tattum (1989) highlighted the functionality and advantages of the American terminology. Firstly,

according to Tattum, the term victimisation may cause adults who dismiss bullying as either part of growing up or merely part of the nature and behaviour of males, to reconsider their opinion. Secondly, the term may force people to focus their attention upon the plight of the victim rather than the bully (Tattum, 1989). Fellow American researchers, Perry, Kusel and Perry (1988), took the concept of intention one step further by adding that the episodes of victimisation were unprovoked attacks. While Farrington (1993), an English criminologist, encompassed the cruelty and the despair of the victim by including in his definition that bullying was oppressive.

The definitions mentioned above suggest several elements are involved in defining bullying. First, there can be one or more children involved in bullying of another student. Second, the attacks are repeated over a period of time. Third, the bully or bullies select their victim and intentionally aim to hurt them. Fourth, there is an imbalance of power between the bully and the victim. Finally, that the bullies are motivated to use power to gain status and dominance. Arora (1996) suggested that these definitions are purely the authors' opinions, however, their opinions are well-founded and based on information they have gained from observations, interviews with self-reported bullies and victims, and anonymous self-report questionnaires.

THE NATURE OF BULLYING

Olweus (1993) termed bullying behaviour as negative actions. According to Olweus there are two categories of negative actions: direct and indirect. Direct bullying is in the form of open attacks such as physical – hitting, kicking, pushing, pulling hair, spitting; and verbal – threatening, taunting, teasing, name calling and spreading rumours. Indirect bullying is excluding a peer from the group or hiding

personal items. Direct and indirect forms are frequently used together (Olweus, 1993; Rigby, 1996; Stephenson & Smith 1989). Direct verbal forms of bullying have been found to be more common in Norway (Olweus, 1993) and Australia (Rigby, 1997b). Furthermore, in both Scandinavia (Olweus, 1993) and Australia (Rigby, 1996), direct physical forms of bullying have been found to decrease with age. Whereas direct verbal forms, such as name calling, and indirect forms, such as social exclusion, tend to remain constant with age (Olweus, 1993). Lagerspetz and Bjorkqvist (1994) suggest that the decline in the use of physical forms of bullying may be linked to social maturation and societal expectations that adolescents and adults control their aggression.

Age and Gender Trends

Bullying has been found to decrease from primary to secondary school (Olweus, 1993; Rigby, 1996). Furthermore, in Scandinavia, Olweus found bullying in children from grades 7 – 9 was half that of children in grades 2 – 6. From several South Australian studies that Rigby (1996) has been involved in, the highest incidence of bullying has been found to occur amongst children aged between 8 – 9 years.

Age trends raise the issue of when intentional bullying behaviours develop. Chazan (1989) cited a study of 435 five-year-old primary school students on the Isle of Wright, where the teachers rated their pupils on a behaviour scale over a one-term period. The results indicated that 9.5% of the students were seen as presenting aggressive behaviours. Chazan suggested the study demonstrates that the development of bullying behaviours is apparent in early childhood.

Gender trends have also been noted in the use of the different forms of bullying behaviours. Boys tended to experience more physical forms of bullying

than girl's who were bullied, and the boys were found to report the incident more often than girls (Boulton & Underwood, 1992; Rigby, 1997b; Smith, 1991; Stephenson & Smith, 1989; Olweus, 1993). In comparison, girls tended to experience more indirect forms such as social exclusion and being called names (Boulton & Underwood, 1992; Rigby, 1997b; Smith, 1991; Stephenson & Smith, 1989; Olwues, 1993). This evidence is supported by research conducted into gender differences and aggression, which suggests that males are more physically aggressive than females (Lagerspetz & Borkqvist, 1994). Lagerspetz and Borqvist have attributed these differences to social roles and biological factors.

Bullying also occurs between the sexes (Rigby, 1996). Rigby found that one third of bullied boys in several Australian co-educational schools reported being bullied by girls and three quarters of the girls were bullied by the boys. However, in comparison to single sex schools there has been no consistent evidence to suggest that there is any difference in the incidence of bullying (Rigby, 1996). In contrast, a study conducted in Norway, with approximately 130,000 students, found that 60 percent of the bullied girls reported boys as the bullies, and 80 percent of the bullied boys reported being bullied by boys (Olweus, 1993).

Both Olweus' (1993) and Rigby's (1996) studies, based on self-reports, imply that boys are more frequently involved in bullying than girls. However, Besag (1989) cited parents and teachers in England who reported equal amounts of bullying in both boys and girls.

To summarise, bullying behaviours may be overt, such as hitting or punching, or covert and subtle, such as social isolation. This evidence suggests that direct forms may be easier to detect and monitor than indirect forms. Further,

age and gender trends indicate that these forms of bullying may be associated with maturation and social norms.

CHARACTERISTICS OF CHILDREN WITH THE TENDENCY TO BULLY AND THOSE WHO ARE BULLIED

Data obtained from Stephenson and Smith's (1989) study indicates that there are several subgroups of bullies and victims. These are bullies, anxious bullies, victims, provocative victims and bully-victims. According to Stephenson and Smith, children in all five groups had distinguishing features such as family problems, poor academic achievement and they lacked self-care skills, compared to those children who were not involved in bully/victim interaction.

Bullies

A common belief has been that bullies are insecure and unpopular and that bullying serves to compensate for their inadequacies. The evidence from Stephenson and Smith (1989) and Olweus (1993) however suggests, that generally bullies were popular with their peers and were very confident children, although their popularity was found to decrease in secondary school. Male bullies were also found to be physically bigger and stronger. Rigby (1996) posits that for males, physical strength determines how popular a boy was and, the likelihood of him being bullied.

Children with the tendency to bully other children were found to be motivated by the distress they caused the victim and by the need to dominate and control others (Besag, 1989; Olweus, 1993; Rigby, 1996). Furthermore, bullies frequently encouraged their peers to join in the bullying (Stephenson & Smith, 1989). Besag (1989) suggested that children become involved in a bullying group to fulfil a sense of belonging and to establish an identity. Once the child was a

member of the group, his/her behaviour was more likely to be shaped by the group's behaviour, resulting in a decrease in their sense of responsibility (Besag, 1989; Olweus, 1993). The child therefore, may begin to conform to the group's attitude, values and behaviour. His/her identity may be replaced by the group's identity and he/she may come to believe the victim deserves the treatment (Besag, 1989; Olweus, 1993).

Further evidence suggests that bullying is thought to be a component of conduct disorder, which may place the child at greater risk of criminal and alcohol abuse (Farrington, 1993; Olweus, 1993). Olweus found strong support for this notion in a longitudinal study, where 35-40% of the children identified as bullies in grades 6-9 had three or more convictions by the age of 24. In addition, males with the tendency to bully others were found to have high levels of testosterone and low adrenaline, both characteristics of underarousal personality associated with criminal behaviour (Farrington, 1993).

Anxious Bullies

Anxious bullies were usually boys and tended to fit the commonly articulated description of bullies (Stephenson & Smith, 1989). These boys were found to lack self-confidence and were less popular than other boys who bullied. Furthermore, this group of boys often attained poor academic achievement and frequently experienced family problems (Stephenson & Smith, 1989).

Victims

In contrast, victims were generally physically weaker than bullies. Further, they were shy, quiet, introverted, lacked self-confidence and were non-assertive (Olweus, 1993; Rigby, 1996). Victims in comparison to bullies tended to be unpopular and have fewer friends at school. According to Rigby and Slee

(1993), peers are inclined to think of victims as wimps. Moreover, some children were victimised because they were either academically gifted, looked different to others, or because others were jealous of them (Byrne, 1994).

Passive Victims and Provocative Victims

A subgroup of victims, termed passive victims, often did not retaliate when bullied and avoided using aggression (Olweus, 1993; Stephenson & Smith, 1989). According to Stephenson and Smith, the bully may interpret the lack of assertiveness on the part of the victim as approval for the attack. Furthermore, passive victims were selected because of the manner in which they reacted to the bullying such as crying or withdrawing. Another group of victims identified by Stephenson and Smith were provocative victims. These victims were more confident than other victims of bullying however, provocative victims were more easily provoked. In addition, this type of victim often teased and antagonised fellow students but frequently complained if others retaliated (Byrne, 1994).

Bully/Victims

Some children were found to be both bullies and victims (Stephenson & Smith, 1993). According to Stephenson and Smith this group is the least popular of all the groups. These children were found to be physically stronger and more able to assert themselves than other victims, however, like the provocative victims, they tended to provoke others, and were easily provoked (Stephenson & Smith, 1993).

In summary, the evidence suggests that certain personality traits and reactive patterns of behaviour place children at risk for developing bully/victim problems. In addition, the literature suggests these children lack the appropriate social skills necessary to render and sustain positive social interactions.

CONSEQUENCES OF BULLYING

Victims of bullying have been found to suffer from physical, social, academic and/or psychological side effects. Evidence for these findings has been consistently reported in both national and international studies (Besag, 1989; Dawkins, 1995; Olweus, 1993; Rigby, 1996).

Physical Effects

Children who are bullied experience a variety of physical symptoms such as fainting, vomiting, headaches, stomach aches, hyperventilation, visual problems and paralysis (Dawkins, 1995). A Scottish hospital survey, over a 56 week period during 1993-1994, revealed twenty out of a possible 305 children who attended the emergency department sustained injuries deliberately inflicted by others (Wright & Stark, 1995). In ten of the cases, boys and girls were tripped or pushed, three were punched or kicked and three were intentionally hit on the head or face by a brick or stone. Two other bullying attacks resulted in one child being treated for a facial fracture and another receiving multiple injuries after falling 15m trying to get away from his attacker. Another child overdosed after being attacked at school. A total of six fractures and 23 days in hospital were recorded for the twelve children. Wright and Stark suggest that the total number of injuries recorded was underestimated, as many injuries were not recognised as being sustained from bullying.

Social and Academic Effects

As previously mentioned, children who are victimised tend to have fewer friends than their peers (Olweus, 1993). According to Rigby (1997b), children avoided being friends with children who were thought of as wimps. Furthermore, Dodge, Coie, Pettit and Price (1990) found neglected boys also avoided

interacting with others and preferred solitary play. These boys' preference for social isolation reduced their potential for establishing friendships and made them more vulnerable to being bullied (Dodge et al., 1990). Moreover, social isolation evoked feelings of fear for their safety at school, eroding their desire to attend school, frequently resulting in the victim being truant (Besag, 1989; Olweus, 1993; Rigby, 1996; Slee, 1995b). Hence, peer victimisation resulted in poor academic performance, feelings of loneliness and avoidance for school (Kochenderfer & Ladd, 1996). Moreover, the longer the period of victimisation, the greater the school maladjustment (Kochenderfer & Ladd, 1996).

In contrast, Rigby and Slee (1993) found that those students who were victims in a sample of 877 Australian secondary school students, reportedly held positive attitudes towards attending school (Rigby & Slee, 1993). Rigby and Slee suggest that as the victims were found to suffer from low self-esteem, this may have induced a pessimistic outlook on life. That is, the student may feel that "life outside of school would not be any more desirable than life in school" (Rigby & Slee, 1993, p.40).

Psychological Effects

The Western Australian Child Health Survey (Zubrick et al., 1997) revealed that victims of bullying experienced significantly more mental health problems than children who bullied, and those not involved in bullying. The evidence indicates that the effects of bullying manifest in low self-esteem, anxiety and depression in the victim (Besag, 1989; Dawkins, 1995; Olweus, 1993; Rigby, 1993; Zubrick et al., 1997).

Low self-esteem in the victim was caused by feelings of humiliation, shame, anger and sadness from being unable to defend themselves and thinking

he/she was unable to cope with the situation (Besag, 1989; Olweus, 1993; Rigby, 1996; Seligman, Reivich, Jaycox & Gillham, 1995). The outcomes (Feelings) and self-evaluation (Cognitions) are the tenets of Seligman's et al., theory of self-esteem. The authors suggest that self-esteem is comprised of two components: A feeling component (Affect component) and a doing well in the world component (a Behavioural and Cognitive component). Their premise is that the feeling side is dependent on one's perception of coping with a negative event (doing well). If one evaluates one is not mastering a negative situation, one may become passive and give up. These feelings and type of behaviour may result in learned helplessness, which has been found to be highly correlated with depression (Seligman et al., 1995). According to Seligman et al., learned helplessness is characterised by the belief that nothing one does can change the situation. In the case of bullying, a child may be seen to become a passive recipient of bullying, signalling to the bully that they approved of the abuse. Furthermore, Bandura (1989) emphasised that people's coping beliefs affected the level of stress and depression they experienced. That is, if a person believed they could not employ the appropriate action to control a threatening situation, the person experienced high levels of stress. It seems the person constantly ruminates about their perceived inefficiency to cope. Bandura posits that a person's distress is exacerbated by their inability to turn off these thoughts. Moreover, the more a person used a ruminative style to cope with a stressful situation, the more likely the person was to experience severe bouts of depression (Nolen-Hoeksema & Girgus, 1994).

Further, once a child experienced a bout of depression, their explanatory style was found to become pessimistic (Nolen-Hoeksema, Girgus & Seligman,

1992). When the depression left the pessimism remained, placing the child at risk for further bouts of depression (Nolen-Hoeksema et al., 1992). Seligman et al., (1995) defined a person's explanatory style as the way one thinks about the causes of good and bad events in one's life. Seligman et al., posit that a person's explanatory style develops during childhood, and, that children most at risk of depression believed bad events were permanent (would last forever), pervasive (they could not change the situation) and personal (blamed themselves for the bad events happening), while good events were temporary, local and external. Seligman et al., found this to be particularly so if the child was in the fifth or sixth grade. If applying Seligman et al's., theory to a child who has been bullied, the child may ask himself "Why is this happening to me?" then "Who is to blame?" "How long will it last?" and "How much of my life will be undermined" (Seligman et al., 1995, p.35). Seligman et al., suggests "Who" is the affect component and "How" is the coping component that controls how the child will respond. If the child persistently tries to master the situation the more likely the child is to develop an optimistic explanatory style which inturn increases self-esteem (Seligman et al., 1995).

Seligman et al., (1995) based their theory on James (as cited in Burkhardt, 1981), who postulated that one's perceived competence in a particular domain, of importance to the person, influenced the degree of self-esteem the person experienced. Cooley (1962), another symbolic interactionist, theorised that self-esteem is social in nature, and is constructed by a person's perception of how others evaluated one. That is, if one perceives that others had a high opinion of one, one's own self-esteem would be high, therefore, others' evaluations become one's own evaluation (Cole & Jordan, 1995). Thus, if a child is negatively

evaluated by peers in the social domain, the child's self-esteem may be undermined, he/she may develop a pessimistic explanatory style and be placed at risk for depression and suicidal ideation. In other words, a negative cognitive style may act as a diathesis when associated with stress, such as from bullying and negative evaluations from peers, to cause depression (Cole & Jordan, 1995).

In summary, the association between bullying, mental and physical health, social competence and academic performance has been well demonstrated in the aforementioned studies. In addition, both Bandura (1989) and Seligman et al., (1995) postulate that one's self-evaluation of coping against adversities, determines psychological outcomes such as high or low self-esteem.

FACTORS CONDUCTIVE TO THE DEVELOPMENT OF BULLYING BEHAVIOURS IN CHILDREN

Children's attachment to their parents, the parent's disciplinary style, the structure of the family and the child's personality characteristics are important factors that influence the onset and development of bullying behaviours in children. The primary role of parents is preparing their child for entering other social groups (Besag, 1989). Parents do so by developing appropriate social skills and encouraging their children to cooperate with others (Besag, 1989; Rigby, 1996).

Attachment

From birth, a child needs to feel safe and loved in a supportive environment to develop a secure attachment to the mother and/or father (Besag, 1989). According to Rutter (1989), secure attachment to the primary caregiver paves the way for the child to form lasting relationships throughout their lives. Olweus (1993) also stressed the importance of the mother/child relationship,

especially the mother/son relationship in influencing the development of bullying behaviours. That is, if the mother lacked warmth and was rejecting of her son he was placed at greater risk for becoming aggressive towards others.

The second factor, a parent's disciplinary style, and the third factor of the family structure have received the most support for the development of bullying behaviours.

Parent's Disciplinary Style

Parents who used a permissive style of disciplining their children, tended to be lenient on aggressive behaviours exhibited by their child towards siblings and peers (Olweus, 1993; Stephenson & Smith, 1989; Zubrick et al., 1997). In addition, it was found that if these parents asked their child to do something that the child found to be aversive, and the child responded by whining or complaining, the parent stopped the request so the child would stop complaining (Dishion, Patterson and Griesler, 1994). The pattern of behaviour, which emerged between the parent and the child, increased the child's risk of developing antisocial behaviours (Dishion et al, 1994). Moreover, the child's reaction pattern was found to be extrapolated to other environments such as school, which either reinforced or decreased the behaviour (Dishion et al., 1994). Thus, permissive parenting styles were ineffective in setting standards for appropriate behaviours.

Parents using harsh authoritarian style discipline may also result in the child becoming aggressive (Besag, 1989). Authoritarian parents tended to be strict and threatened to use force to correct aggressive behaviours. These parents expected obedience and controlled their child's behaviour (Besag, 1989). In contrast, authoritative parenting styles were warm and democratic, and valued discipline (Besag, 1989).

Family Structure

According to Bowers, Smith and Binney (1994), both the children who bully and those who are bullied were more likely not to have a father at home. However, bullies felt their parents and siblings were powerful and that their families lacked cohesion (Bowers et al., 1994). In contrast, the victims reported high, positive involvement with parents and siblings, possibly indicating enmeshed family relations (Bowers et al., 1994).

Temperament

The temperament of the child also plays an important role in the development of bullying behaviours (Olweus, 1993). Children found to be impulsive and aggressive were more likely to bully other children (Olweus, 1993). A child may learn to act aggressively by observing aggressive acts or being an object of the aggression (Eron, 1994). According to social-cognitive theory, it is the anticipated outcomes, such as dominance and heightened self-esteem, that determine if aggressive behaviours are exhibited (Guerra, Nucci & Huesmann, 1994). In contrast, negative outcomes such as disapproval by peers and physical punishment inhibits aggressive behaviour (Guerra et al., 1994). Children who behave aggressively have been found to place less importance on negative outcomes (Guerra et al., 1994; Perry, Willard & Perry, 1990). Furthermore, over time the pattern of assessing the outcomes for exhibiting aggressive behaviours, tends to become automatic (Perry et al., 1990).

Moral development

Whereas the social-cognitive theorists mentioned above describe the acquisition and information processing that determines a particular behaviour, moral development theorists postulate the significance of the actor's moral

reasoning and justification for the behaviour. Children's moral reasoning develops at different stages throughout childhood and adolescence and at varying rates (Besag, 1989). Besag suggested that children with the tendency to bully their peers may not have attained the same stage of morality as their peers. However, although research indicates aggressive children may have social skills deficits and immature moral development, Olweus (1993,p.124) posited that the focus of attention should not be the aggressors lack of abilities, but rather that their bullying behaviour is "a function of deviant motivations and habits" and opportunities.

In summary, the results from these studies suggest problematic family backgrounds are influential in the development of antisocial patterns of behaviour in children. The evidence supports the notion that a balance between a warm, supportive family relationship and firm guidelines fosters a pattern of behaviours that assist in developing and sustaining interpersonal relationships throughout the lifespan.

WHERE THE BULLYING OCCURS

Bullying of other children occurs in many places such as in the classroom, in the playground, on the way to school and on the way home (Rigby, 1996). Bullying during class time usually occurs when the teacher leaves the room, although because of the covert nature of some types of bullying, it may occur whilst the teacher is present (Rigby, 1996). However, bullying is most frequently reported to happen during recess or lunch (Besag, 1989;Olweus, 1993; Rigby, 1996).

In Australia, students spend one-sixth of their time at recess and lunch (Rigby, 1996; Slee, 1995a). In a survey of 1050 South Australian students, aged

between 8 to 13 years, bullying was found to most frequently occur on the oval or in the playground (Slee, 1995a). Moreover, approximately 36% of the students felt unsafe at school (Slee, 1995a). Slee posited that to reduce the incidence of bullying in these locations, and to create safer play areas, staff needed to be trained in playground supervision so as to be able to discriminate between bullying and rough-tumble play. Furthermore, as victims often played alone during recess and lunch, Slee (1995a) and Rigby (1996) posit that teachers should promote prosocial play between children by organising and participating in games or discussions with students. In addition, many playgrounds were found to be dull and lacking equipment which increased the risk of victimisation due to the lack of stimulating play activities for the students (Slee, 1995a).

CHILDREN'S PERCEPTIONS OF ASSISTANCE FROM TEACHERS WHEN BULLYING OCCURS

In Scandinavia, Olweus (1993) found that 40% of the bullied primary students and 60% of the bullied secondary students reported that teachers assisted them occasionally or almost never. This evidence was supported by information obtained by the students who bullied others. Furthermore, 65% of the bullied primary students and 85% of the bullied secondary students reported that teachers did not discuss the incident with the students (Olweus, 1993). Hence, students felt that teacher assistance in these situations was not viable.

Similar findings have been reported in Australia. Rigby (1996) cited several Australian studies, with samples collectively totally 8,000 male and female students, which indicated 30% of the students felt that teachers were either not interested or only sometimes interested in trying to stop the bullying. But, as previously mentioned, much of the bullying has been found to be covert in nature

and thus, is difficult for teachers to detect (Rigby, 1996). Furthermore, victims were more likely to seek help from friends and parents than teachers (Rigby, 1996). Informing others however tends to decrease with age. Victims tend to feel embarrassed about being attacked and felt they were looked upon as weak and inferior. In addition, victims found that reporting the bullying incident did not improve the situation (Rigby, 1996).

In England, Smith (1991) also found that students who were victimised felt that teachers would only intervene if several victims sought the help of a teacher. Moreover, the victims preferred not to disclose the victimisation to their parents because of the fear of possible retaliation if the parents went to the school (Smith, 1991).

Rigby (1996) posits that the majority of Australian teachers are concerned about bullying problems and are eager to reduce the incidence of bullying in their school. Rigby found that most teachers believe that the victim should be supported and did not deserve to be bullied. However, many teachers reported that they feared intervening in many situations, and they felt that either the Principal or the year coordinator should intervene in bully/victim situations rather than the class teacher (Rigby, 1996). To reduce the incidence of bullying during recess and lunch, and to reduce teacher's apprehension in intervening in crisis situations at school, Olweus (1993) suggested increasing the number of teachers supervising during these times.

To summarise, student self-reports of victimisation highlights that the lack of adequate supervision and surveillance of areas most at risk, increases the opportunities for bullying to occur to the detriment of the victim. Furthermore, for

the safety of the teachers and the students it is advisable to increase the number of teachers supervising during these times.

AIMS OF THE PRESENT STUDY

The present study aimed to replicate and extend Rigby and Slee's (1993) study which investigated bully/victim problems, self-esteem and students attitudes towards attending school. As mentioned, Rigby and Slee (1993) are recognised as the foremost researchers of bullying and its effect on self-esteem, in Australian children. Furthermore, Rigby and Slee have constructed the Peer Relations Assessment Questionnaire (PRAQ) validated on Australian children and the Australian school system. The PRAQ has been administered to 26,000 children, which has resulted in an extensive information data base relating to the incidence of bullying in Australia and how children feel and react towards each other (Rigby, 1996).

The present study first aimed to extend Rigby and Slee's (1993) research by investigating bullying in primary school students rather than secondary school students as research indicates bullying is more prevalent in this age group (Olweus, 1993; Rigby, 1996). Second, Rigby and Slee's study measured global feelings of self-esteem. The present study will include two questionnaires to investigate the two components of self-esteem highlighted in Seligman et al's., (1995) theory. The feeling side will be measured using Coopersmith's (1989) Self-Esteem Inventory (SEI), suggested by Seligman et al., as measuring this component. The doing well in the world or coping component, will be measured using the Children's Attributional Style Questionnaire CASQ (Seligman, Kaslow, Alloy, Peterson, Tanenbaum & Abramson, 1984). This questionnaire measures the child's explanatory style, espoused by Seligman et al., (1995) as being the foundation of self-esteem. If a child believes he/she is coping in a particular situation, the more optimistic their explanatory style should be. In contrast, if the

child believes he/she is not coping the more pessimistic their explanatory style will be.

The present study examined the association between the victims of bullying and self-esteem, rather than all three dimensions of peer relations, prosocial, bully and victim, as did Rigby and Slee (1993), using the same statistical analyses. The present study hypothesised that the victims of bullying will have low self-esteem and a pessimistic explanatory style.

In addition, Rigby and Slee (1993) found that children who were victimised liked school however, this evidence conflicts with the findings by Dawkins (1995), Slee (1995b) and Rigby (1996) who found that victims were often truant or reluctant to go to school. Therefore, based on the evidence from Dawkins, Slee and Rigby, it is hypothesised that victims of bullying will dislike school.

Method

Participants

Participants were fifth-, sixth- and seventh-grade students who attended one private primary school located in a middle-class suburb in Perth, Western Australian. From a pool of 210 students, a sample of 84 children (a 40 % acceptance rate) participated in the study after parental consent was obtained. There were 38 males and 46 females with ages ranging from 10 ($N = 17$), 11 ($N = 37$) to 12 years ($N = 30$).

Instruments

Self-esteem – The Self-Esteem Inventory (SEI: Coopersmith, 1989) is designed to measure self-evaluated attitudes in the social, academic, family, and personal domains. The School Short Form of SEI however, does not differentiate between the subscales. This version was administered due to time restrictions. The School Short Form contains twenty-five statements (eg. “I’m a lot of fun to be with”). The response categories are “Like Me” or “Unlike Me”. A score of one is given for each correct answer. For example, a negative item is scored correct if the “Unlike Me” response has been ticked (eg. “I get upset easily at home”), and a positive item is scored correct if the “Like Me “ response has been ticked (eg, “I’m a lot of fun to be with “). The number of self-esteem items answered correctly are summed and multiplied by four to give a maximum total score of 100. That is, high scores reflect a higher level of self-esteem. A mean score of 68 has been found for children in grades 5-7 (Kimball, cited in Coopersmith, 1989). The SEI has demonstrated high internal consistency, pretest-post-test reliability and construct validity (Kimball, cited in Coopersmith, 1989; Drummond, McIntire & Ryan; Kokenes; cited in Coopersmith, 1989) (See Appendix A).

Liking for School Scale- The Liking for School Scale (Rigby & Slee, 1993) is a four-item measure of students liking for school. The scale contains two positively worded items (eg. "I feel proud to belong to this school") and two negatively worded items (eg. "I wish I had gone to another school"). Response categories are Agree, Disagree and Uncertain. Scores range from 4 to 12, higher scores reflecting more liking for school. The Liking for School Scale has relatively good reliability (Cronbach alpha = .73) (Rigby & Slee, 1993) (See Appendix B).

Optimism/Pessimism Scale- The Children's Attributional Style Questionnaire (CASQ; Seligman et al., 1984) is a widely used measure of explanatory style in children aged between eight and twelve. It contains 48 statements representing events. Each statement has two explanations why these events may have occurred. Participants choose between the two explanations which best describes how they would feel (eg "You make a new friend" A. I am a nice person. B. The people I meet are nice). Half of the events are positive and half are negative. There are six subscales on the CASQ: the permanent, pervasive and personal scales for bad events and the permanent, pervasive and personal scales for the good events. The participant's scores are totaled for the three subscales of the bad events and for the three subscales of the good events. The total score of the bad events is subtracted from the total score of the good events to find the measure of the child's explanatory style. Scores may be totalled on both the permanent and pervasive scales to find a measure of hopelessness in the students. The reliability of the CASQ has found to be adequate. Positive items alpha coefficients have been found to range from .47 to .64; Negative items alpha

coefficients have been found to range from .42 to .61 (Nolen-Hoeksema, Girgus & Seligman, 1992) (See Appendix C).

Assessment of bullying at school- The Peer Relations Assessment Questionnaire (PRAQ; Rigby, 1997) is a widely used scale that assesses bullying problems in schools. The PRAQ consists of a 16-item scale that examines the nature and extent of the bullying at the school, where the bullying occurs, how often the bullying occurs, how the children have reacted to bullying, if the children have informed others and if the students wish to have a class discussion about the bullying (eg, "How often this year have you been bullied by another student or group of students? [Circle a letter] A. At least once a week. B. Less than once a week. C. Never.). Data obtained is qualitative and quantitative in nature. Space is provided for children to specify details of bullying. Response categories vary for each item (eg, Yes, No; Never, Sometimes, Often; I always feel safe, I usually feel safe, I feel safe about half the time, I usually don't feel safe, I never feel safe), scores range from 18 to 75. Questions have been renumbered for data entering (See Appendix D).

Ethics

The Edith Cowan University's School of Psychology Ethics Committee granted ethics approval for the present study in August 1998.

Procedure

One private primary school was invited to participate in the present study. After approval was obtained from the Principal, consent forms were distributed to the students by the class teacher, for parental consent (See Appendix E). After consent was received a date and time, convenient for teachers, was arranged.

Administration of the questionnaires took place in a room at the school during school time. There were three groups of male and female students (44, 20, 20 respectively), with ages ranging from 10 to 12 years. Teachers allocated students to each group. Students in each group were given a copy of the questionnaires and the procedure for completing the questionnaires was explained. Further, students were informed that there was no right or wrong answer to the questions, and that they may refuse to answer any questions. The students were instructed not to put their name on the questionnaires, and that the information was confidential.

The following definition of what constitutes bullying behaviour by Olweus's (cited in Slee, 1995b, p.60) was read aloud to the students:

Students sometimes bully students at school by deliberately and repeatedly hurting or upsetting them in some way, for example, by hitting or pushing them around, teasing or leaving them out of things on purpose. But it is not bullying when two young people of about the same strength have the odd fight or quarrel.

The SEI and the PRAQ were read aloud to the children while the children answered each question, whereas the CASQ and the Liking for School Scale were not read aloud. The questionnaires took approximately 35 minutes for the students to complete, and were collected before the students returned to their classrooms. All students were advised of the counsellor's contact name and number, and were thanked for participating in the study.

Results

Three standard multiple regression analyses were performed between the three independent variables Age, Gender and scores on the Peer Relations Assessment Questionnaire (PRAQ), with scores on the three dependent variable's: SEI: Self-esteem of the students (SELFESTE); Liking for School (LIKING) and Children's Attributional Style Questionnaire (CASQ). Analyses were conducted using Statistical Packages for Social Sciences (SPSS) for Windows programmes. The correlations between the variables, the unstandardised regression coefficients (B) and intercept, the standardised regression coefficients (β), the squared semipartial correlations (sr^2) and R^2 and Adjusted R^2 are displayed in Table 1 – Self-Esteem, Table 2- Liking, Table 3 – CASQ.

MULTIPLE REGRESSION

SELF-ESTEEM (Table 1)

R for regression was found to be significantly different from zero $F(3, 80) = 4.485, p < .01$. The independent variable PRAQ ($sr^2 = .10$) and Age ($sr^2 = 0.08$) significantly contributed to the prediction of self-esteem in the students. The three independent variables predicted 14% (11% adjusted) of the variability in self-esteem of the students (See Appendix F).¹

¹ A standard multiple regression was conducted between the predictors Age, Gender and scores on PRAQ with scores on Self-Esteem after the negatively skewed variable was reflected to produce positive skewness and a square root transformation was performed to normalise the distribution, as suggested by Tabachnick and Fidell (1996). Similar results were recorded (See Appendix G).

Table 1

Standard Multiple Regression of Peer Relations, Age and Gender on Self-Esteem

Variables	Self-Esteem (DV)	PRAQ	Age	Gender	\underline{B}	B	sr^2 (unique)
PRAQ	-.25				-.796**	-.34	.10
Age	.19	.31			8.701**	.30	.08
Gender	-.05	.04	.00		-1.806	-.04	
Intercept = 1.942							
<i>M</i>	67.30	38.82	11.15	.45			
<i>SD</i>	21.53	9.17	.74	.50			
$R^2 = .14$ a Adjusted $R^2 = .11$ $R = .38^{**}$							

** $p < .01$

a Unique variability = .18; shared variability = -.04.

LIKING (Table 2).

A standard multiple regression was conducted with missing values for three cases on Liking.² R was found to be significantly different from zero $F(3, 77) = 2.721, p = .05$. The independent variable PRAQ significantly contributed ($sr^2 = .05$) to the prediction of Liking for School. The three independent variables predicted 10% (adjusted 6%), of the variability of Liking for School (See Appendix H).

² A standard multiple regression was performed with a group mean of grade and gender substituted for missing values, and after the negatively skewed scores on Liking were reflected to produce positive skewness and a square root transformation was conducted to normalise the distribution of scores as suggested by Tabachnick and Fidell (1996). Similar results were recorded (See Appendix I)

Table 2

Standard Multiple Regression of Peer Relations, Age and Gender
on Liking for School

Variables	Liking (DV)	PRAQ	Age	Gender	B	B	sr^2 (unique)
PRAQ	-.28				-0.072**	-.24	.05
Age	-.20	.31			-0.464	-.12	
Gender	.06	.02	.01		.372	.07	
Intercept = 16.845							
<i>M</i>	9.06	38.62	11.16	.43			
<i>SD</i>	2.75	9.25	.73	.50			
					$R^2 = .10$		
					Adjusted $R^2 = .06$		
					$R = .31^*$		

** $p < .05$

* $p = .05$

CASQ (Table 3)

R for the regression was found not to be significantly different from zero $F(3, 71) = 3.286$, n.s. One independent variable Gender ($sr^2 = .05$), contributed significantly to the prediction of optimism in the students. The three independent variables predicted 10% (6% adjusted) of the variability of optimism (See Appendix J)^{3, 4}.

³Scores were adjusted for two cases identified as *CASQ* univariate outliers as suggested by Tabachnick and Fidell (1996).

⁴A standard multiple regression was performed with Age, Gender and PRAQ scores, on *CASQ* with ten missing values substituted with regression values as suggested by Tabachnick and Fidell (1996). Similar results were recorded (See Appendix K).

Table 3

Standard Multiple Regression of Peer Relations, Age and Gender
on Students Explanatory Style

Variables	CASQ (DV)	Gender	PRAQ	Age	\underline{B}	B	sr^2 (unique)
Gender	-.22				-2.093*	-.23	.05
PRAQ	-.19	.03			-0.124	-.24	
Age	.01	.00	.37		.596	.10	
Intercept = 7.920							
<i>M</i>	5.64	.43	38.09	11.16			
<i>SD</i>	4.58	.50	8.74	.74			
					$R^2 = .10$ a		
					Adjusted $R^2 = .06$		
					$R = .31$		

* $p < .05$

OTHER ANALYTICAL STRATEGIES

SECTION ONE - Kruskal – Wallis Tests

To examine the relationship between grade and gender of the students with PRAQ two Kruskal – Wallis Test were conducted as the assumption of normality and the assumption of homogeneity were violated for the One-Way ANOVA. No significant differences were revealed between student's scores on PRAQ and gender of the students $X^2(1, N = 84) = .055$, n.s. or between students scores on PRAQ and grade of the students $X^2(2, N = 84) = 4.097$, n.s., indicating no

differences in the nature and extent of bullying experienced by the students in grade 5, 6 and 7 (See Appendix N). Descriptive statistics are presented in Table 4.

Table 4

Mean Ranking of PRAQ

Group	N	Mean Ranking
Gender		
Females	46	41.93
Males	38	43.18
Grade		
5	14	34.68
6	40	40.19
7	30	49.23

Note. N = 84

SECTION TWO - ONE-WAY CHI-SQUARE'S

To investigate the nature and extent of bullying occurring at the school a One-Way Chi-Square, with alpha set at .05, was performed on 20 PRAQ questions. (See Appendix N).

Q2- How often does bullying occur?

The One-Way Chi-Square analysis revealed a significant difference, $X^2(2, N= 84) = 48.071, p < .01$. As can be seen from Table 5 most students reported that bullying sometimes occurs at the school, while seven students reported bullying never occurred.

Q3 Have you noticed bullying in the classroom?

The One-way Chi-Square revealed a significant difference reported in the amount of bullying occurring in the classroom, $X^2(2, N= 84) = 23.643, p < .01$. The results indicated the most frequent response was that bullying sometimes occurs in the classroom. Descriptive statistics are presented in Table 5.

Q4 – Have you noticed bullying at recess/lunch?

The One-Way Chi-Square Analysis revealed a significant difference

$\chi^2(2, N = 84) = 26.643, p < .01$. Descriptive statistics in Table 5 indicates that bullying sometimes occurs at recess or lunch.

Table 5

Frequency of Where Bullying Occurs

Response Category	School		<u>Location</u>		Recess/Lunch	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Never	7	8.33	38	45.24	7	8.33
Sometimes	57	67.86	39	46.43	45	53.57
Often.	20	23.81	7	8.33	32	38.10

Note. $N = 84$

As the present study was investigating bullying occurring at the school questions 5 and 6, relating to bullying before and after school hours, were not analysed. Questions 7 to 11 examined the nature of bullying occurring at the school. Significant differences were revealed for:

Q.7 - Relating to teasing, $\chi^2(2, N = 84) = 20.643, p < .01$

Q8 - Called hurtful names, $\chi^2(2, N = 84) = 17.643, p < .01$

Q9 - Left out on purpose, $\chi^2(2, N = 84) = 12.929, p < .01$

Q10 – Threatened with harm, $\chi^2(2, N = 84) = 77.429, p < .01$

Q11 – Hit or kicked $\chi^2(2, N = 84) = 37.786, p < .01$

Descriptive statistics are displayed in Tables 6 listed below.

Table 6

Frequency of Forms of Bullying

Response Category	<u>Type of Bullying</u>			
	Direct Verbal			
	Teasing		Names	
	<i>N</i>	%	<i>N</i>	%
Never	45	53.57	31	36.90
Sometimes	28	33.33	42	50.00
Often.	11	13.10	11	13.10
	Direct Physical			
	Threatened		Hit/Kicked	
	<i>N</i>	%	<i>N</i>	%
Never	66	78.57	51	60.72
Sometimes	8	9.53	28	33.33
Often.	10	11.90	5	5.95
	Indirect			
	Left Out			
	<i>N</i>	%		
Never	39	46.43		
Sometimes	32	38.10		
Often	13	15.47		

Note. *N* = 84

Q12 – How often this year have you been bullied?

The One-Way Chi-Square revealed a significant difference in the incidence of bullying, $\chi^2(2, N = 84) = 14.000, p < .01$, with response category “never” reported most frequently. Descriptive statistics are in Table 7

Table 7

Frequency of Bullying Endured During The Year

Response Category	<i>N</i>	%
Never	14	16.67
Sometimes	28	33.33
Often	42	50.00
Total	84	100

Q 13- When bullied how do you feel?

From four response categories the students most frequently chose that bullying did not bother them, $X^2(2, N = 84) = 8.857, p < .05$. Descriptive statistics are displayed in Table 8.

Table 8
Frequency of Response To How Students Feel After Being Bullied

Response Category	N	%
Never been bullied at school	22	26.20
Been bullied but hasn't bothered me	31	36.90
Felt angry	12	14.29
Felt sad and miserable	19	22.61
Total	84	100

Q14 – How safe do you feel from being bullied at school?

A One-Way Chi-Square revealed the majority of students felt safe at their school, $X^2(4, N = 84) = 69.929, p < .01$. Descriptive statistics are presented in Table 9.

Table 9
Frequency of Response To How Safe Students Feel At School

Response Category	N	%
Always feel safe	44	52.38
Usually feel safe	23	27.38
Feel safe half the time	9	10.72
Usually don't feel safe	2	2.38
Never feel safe	6	7.14
Total	84	100

Q 15 – Have you stayed away from school because of bullying?

The One-Way Chi-Square revealed that the students most frequent response was that they had never thought of staying away from school because of bullying, $X^2(3, N = 84) = 94.095, p < .01$. Descriptive statistics are presented in Table 10.

Table 10

Frequency of Response To Staying Away From School

Response Category	N	%
No, I've never thought of staying away	59	70.24
No, but I've thought of doing so	13	15.48
Yes, I have once or twice	9	10.71
Yes, more than twice Always feel safe	3	3.57
Total	84	100

Questions 16 to 19 inquired who the student informed if they were bullied.

The only significant difference was revealed for:

Q 16 - Your Mother $X^2(2, N = 84) = 11.214, p < .01$.

No significant differences were recorded for:

Q 17 – Your father $X^2(2, N = 84) = .929, n.s$.

Q 18 – Teacher/counsellor $X^2(2, N = 84) = .929 n.s$

Q 19 – Friend/Friends $X^2(2, N = 84) = 2.214 n.s$.

Descriptive statistics are presented in Table 11.

Table 11

Frequency of Who Was Informed

Response Category	<u>Person/s Informed</u>			
	Parents			
	Mother		Father	
	N	%	N	%
Never	29	34.52	29	34.52
Yes	40	47.62	24	28.57
No	15	17.86	31	36.91
	Teacher/Counsellor		Friend/Friends	
	N	%	N	%
Never	29	34.52	29	34.52
Yes	24	28.57	33	39.29
No	31	36.91	22	26.19

Note. N = 84

Q 20 –Did things improve after you told someone?

A significant difference was revealed between the five response categories to question 20 after a One-Way Chi-Square was conducted $\chi^2 (4, N = 84) = 41.119, p < .01$. The most frequent response indicated the situation improved after confiding to someone about the bullying. Descriptive statistics are presented in Table 12.

Table 12
Frequency of Response If the Situation Improved After Informing Someone

Response Category	N	%
Never been bullied	29	34.52
I was bullied but never told anyone	4	4.76
I told – and it got worse	5	5.95
I told – and the situation didn't change	14	16.67
I told – and things got better	32	8.10
Total	84	100

Questions 21 to 23 elicited the students opinions of teacher involvement in improving the situation and if the students were interested in class discussion.

Q 21- Do you think that teachers at this school are interested in trying to stop bullying?

A One-Way Chi-Square revealed a significant difference in the students response to teacher intervention, $\chi^2 (3, N = 84) = 8.667, p < .01$. As can be seen from Table 13, most students reported that teachers at their school were always interested in trying to stop the bullying.

Table 13
Frequency of Response Of Opinion of Teacher Assistance

Response Category	N	%
Not really	16	19.05
Only sometimes	21	25.00
Usually they are	15	17.85
They always are	32	38.10
Total	84	100

Q 22- Do you think students and teachers should work together to stop bullying?

A significant difference was found , $\chi^2(2, N = 84) = 32.357, p < .01$, after a One-Way Chi-Square was performed on the students' response to the above question, indicating their preference for student teacher involvement to reduce the incidence of bullying. Descriptive statistics are displayed in Table 14.

Q 23 – Are you interested in discussing the problem of bullying with other students?

The results of a One-Way Chi-Square performed on the frequencies of students response to question 23 indicated no significant differences between the three response categories, $\chi^2(2, N = 84) = 2.571$, n.s. Descriptive statistics are in Table 14.

Table 14
Frequency of Response to Type of Intervention

Response Category	Intervention			
	Students/Teacher		Class Discussion	
	<i>N</i>	%	<i>N</i>	%
Yes	51	60.72	34	40.48
Don't Know	24	28.57	28	33.33
No	9	10.71	22	26.19

Note. *N* = 84

SECTION THREE – FREQUENCY COUNTS

To examine if the same students were reporting “Often” to questions 7 - 11 (the frequency of a particular type of bullying), and question 12 (how often the bullying occurred during the week), frequency counts were performed for each case reporting “Often”. See Table 15 for frequency counts for cases reporting to have experienced two or more forms of bullying at least once a week.

Table 15

Frequency Counts of Subjects Reporting That The Types Of Bullying Occur
"Often", "At Least Once A Week".

QUESTION		SUBJECT NUMBER											
7	Teasing	8	16	25	37	-	-	53	-	-	61	78	-
8	Name Calling	8	16	25	37	-	-	53	54	57	61	-	81
9	Left Out	8	16	25	37	-	-	53	-	57	-	78	-
10	Threatened	8	16	25	37	45	46	53	-	-	-	-	-
11	Hit/ Kicked	8	16	25	37	-	-	53	-	-	-	-	-
12	Once a week	8	16	-	37	45	46	53	54	57	61	-	81

QUALITATIVE ANALYSIS

To test the reliability of the researchers thematic analysis of the qualitative data, an inter-rater reliability, using the method suggested by Miles and Huberman (1984), was conducted and an 85% internal consistency was recorded. The themes revealed were, that direct bullying was more common than indirect, particularly verbal forms of teasing, name calling. Further, males reported more physical forms of being kicked and punched than the girls, whereas the girls reported more indirect forms of being left out of the group on purpose. Many of the children also reported feeling scared, upset and sad.

Discussion

The results of the present study did not support the three hypotheses that: Children who are bullied at school have low self-esteem; That victims of bullying dislike school; and, the victims of bullying have a pessimistic explanatory style. Therefore, the results indicated that the independent variables Age and Gender of the student, and the bullying witnessed and experienced by the student (PRAQ) were not strong predictors of the level of self-esteem of the student, the type of explanatory style a child has or if the child liked attending school.

The proportion of variance explained by the predictors ranged from 10% for both the explanatory style of the student and attitudes towards school, to 14% for self-esteem of the student. The findings for attitudes towards school are consistent with Rigby and Slee (1993), and similar to Rigby and Slee for self-esteem. And, although the correlations were low, significant relationships were recorded between first, PRAQ scores and the gender of the student with self-esteem, second, PRAQ and Liking for School, third, gender and the students type of explanatory style. These findings implicate the predictors involvement, albeit limited, in the students psychological well-being.

Although the multiple regression analyses reflected no statistical relationship between the predictors and the criterions, the patterns of scores for three groups of students, demonstrated findings consistent with the literature. First, one group of students was found to have incidence rates that were similar to another Western Australian study. Second, trends in the some of the student's scores were consistent with national and international research findings. Third, another small group of students was found to be resilient to the effects of bullying. The students from the first group were also found to be part of the second group to

form a small proportion of students who were consistently subjected to either direct or indirect bullying.

Incidence of bullying occurring at school

From a total sample of 84 students, 12 students were identified from their low scores on two of the questionnaires: CASQ, SEI and high scores on the PRAQ as being frequently subjected to bullying incidents that resulted in low self-esteem and a pessimistic explanatory style. Of these 12 students, 10 were identified as meeting the criteria for calculating an incidence rate using the method Olweus (1993) and Rigby (1996) suggest. That is, only those students who had responded that they had been bullied "Often", the highest negative response category, were included. Hence, one student in eight was found to be consistently bullied. This figure is lower than some international research (Olweus, 1993) and interstate research (Rigby, 1998), and relatively similar to the one in nine students recorded by Zubrick et al's., (1997) large scale study conducted in Western Australian.

Trends

The patterns of the 12 student's scores indicated that the more frequently a student was bullied, the lower their self-esteem (all 12 students), the more pessimistic their explanatory style became from not coping with the situation (9 of the 12 students). These findings are consistent with Besag (1989), Dawkins (1995), Olweus (1993), Rigby (1997; 1998), Rigby & Slee (1993), Seligman et al., (1995) and Zubrick et al., (1997). However, the students held positive attitudes towards school (8 of the 12 students) rather than dislike for school (5 of the 12 students), consistent with Rigby and Slee (1993).

The self-esteem scores for the 12 students ranged from the 40th percentile to below the 1st percentile, indicating low to very low self-esteem. The students scores were compared to Kimball's (cited in Coopersmith, 1989) large scale study ($N = 7,593$). However, this comparison is based on American norms rather than local norms. Alternatively, these scores may indicate other extraneous factors such as a bad day or family problems rather than associated with bullying. Furthermore, eight of the 12 student's CASQ scores were also on the 40th percentile or less, indicating a very pessimistic explanatory style. In contrast, as mentioned the present study supported Rigby and Slee's (1993) findings that students who were victimised still maintained they liked attending school. As Rigby and Slee (1993, p. 40) suggested, these students were found to have a pessimistic explanatory style which, as the authors suggested may result in the child feeling "that life outside school would not be any more desirable than life in school". Partial support for this notion was the qualitative data indicating that some of the children were experiencing family problems.

Furthermore, the findings from the 12 student's scores suggest that an association between bullying and self-esteem and explanatory style of the victim is dependent upon how frequently the bullying occurs. Support for this notion is the students who reported being bullied "sometimes" recording higher self-esteem, a more optimistic explanatory style and liking for school than the 12 students who reported that the bullying occurred "often". Additional confirmation for this notion is the frequency counts, which revealed that the students who reported that the bullying occurred "Often" and "At least once a week", were identified as the same group of students.

Resilient students

However, it was also noted that whilst 15 students scored high PRAQ scores (40 or above) they also experienced high self-esteem, were optimistic and liked attending school. Fourteen of these students self-esteem scores ranged from the 75th percentile to the 100th percentile, with half of the students scores recorded as 95% or higher. Furthermore, 9 were found to be above average for the CASQ scores. This may suggest that these students were resilient to the effects of bullying. Support for this notion was evidenced in the student's response to Question 13 (8) "I have been bullied, but it hasn't really bothered me". Eleven of the 15 students responded favourably to this question, that the bullying did not bother them. Whereas the 12 children who also experienced high levels of bullying, but had low self-esteem and a pessimistic explanatory style, reported that they felt angry, sad or miserable. These type of emotions were described by Seligman et al., (1995) as being associated with the belief that the cause of the event is permanent and feelings of helplessness, which may place the child at risk for depression. Inspection of this group of children's scores on the hopelessness (HOB) subscale, and the permanent (PMB) subscale on the CASQ, indicated that this notion was not supported in this particular group.

One may speculate that the evidence suggests the resilient children actively altered their thoughts, to perceive that they were coping with the bullying, which produced a sense of internal control of the situation. This in turn fostered an optimistic explanatory style that acted as a protective factor against stress, resulting in the child experiencing a robust sense of self. This notion is supported by both Bandura's (1989) theory and Seligman et al's., (1995) theory, that the control of one's thoughts (Bandura) and perceived control over a threatening

situation (Seligman et al.,) influences the psychological outcomes of an event. It seems that the children in the present study assimilated coping strategies into their coping repertoire which were either adaptive for the resilient children, resulting in high self-esteem, or maladaptive for the minority group, resulting in low self-esteem. Furthermore, the resilient children may have not only actively altered their thoughts, they may have acted assertively towards the bully. Future research may endeavour to include questions relating to the type of behavioural response styles children employ in overcoming bullying to test this notion.

Implications

The implications from these findings are to first, teach children to recognise and challenge their pessimistic thoughts. Second, to teach social problem-solving skills that encourage children to actively change the negative situation, so as to espouse feelings of control and competence. Thus, promoting psychological well-being and resilience against future challenges and adversities.

Investigation of the scores on PRAQ

No statistical differences were revealed in the frequency of bullying occurring between the children in grades 5,6 and 7. However, although there were fewer students in grade 7 compared to grade 6, the grade 7 students reported more bullying than the grade 6 students. This evidence conflicts with the age trends found in Scandinavia (Olweus, 1993) and Australia (Rigby, 1996), which found bullying decreases with age. Furthermore, even though no statistical differences were revealed between the boys and girls at the school, boys reported more bullying than the girls. These findings support Boulton and Underwood (1992), Olweus (1993) and Rigby (1996) studies.

Further investigation of the results indicated that 83% of the students reported that they had been bullied over the last 12-month period, 33% less than once a week and 50% at least once a week. Forty three percent had experienced direct forms such as being hit or kicked, called names or threatened with harm, and 54% had experienced indirect forms such as left out on purpose. Higher forms of indirect bullying rather than direct forms were also found by Rigby (1997b). In addition, 14% reported to have stayed away from school one or more times because of bullying which most frequently occurred during recess and lunch. Evidence again found in national (Rigby, 1996) and international studies (Besag, 1989; Olweus, 1993). However, the majority of students who were bullied reported that the situation improved after confiding in someone. In contrast, Rigby (1996) found that victims often report that the situation did not improve after telling someone. The victims in the present study were also found to seek help from either their mother (48%), friends (40%), father (29%) or teacher (29%). Furthermore, the students felt the teachers were interested in trying to stop the bullying (56%) and that students and teachers should work together to stop the bullying (61%) perhaps with class discussions (41%).

Limitations and future research

Four methodological limitations of the study are noted. First, the slightly higher than average incidence rate compared to Zubrick's et al's., (1997) Western Australian study may be due to the size of the sample and the particular participants. That is, the small group of participants ($N = 84$) may contain students who are more regularly bullied, compared to the remaining pupils in grades 5,6 and 7 not included in the study ($N = 116$), thus inflating the incidence rate.

Second, as mentioned, the present study was not designed to measure the student's response styles to bullying, and as such the assertion that resilience is cognitively based is weakened. Therefore, future research may endeavour to include this aspect.

Third, the fourth question on the Liking for School Scale tends to be somewhat ambiguous "I'm looking forward to leaving this school". The grade seven children may have interpreted this as having positive connotations, as looking forward to going to high school whereas, other students may have interpreted this with negative connotations such as, I want to go to another school because I dislike this school. In addition, due to the high rate of non-compliance in completing the CASQ, it is suggested future participants be administered this questionnaire first rather than last.

In summary, the multiple regression analyses revealed no association between age and gender of the students and the nature and extent of the bullying witnessed and endured by the students with self-esteem, explanatory style or liking for school in this particular sample of primary school children. Overall the children were found to have high self-esteem, were optimistic and liked attending their school. As the incidence of bullying was found to be lower than the national findings it may suggest that the school ethos prevented a high rate of bullying. Personal communication with the Principal revealed that a whole school approach was undertaken to promote and foster respect and integrity in the students at a community level, the school level and the classroom level. Further, parents and students were regularly reminded of the type of environment the school strived for, and the consequences for students not adhering to the school policy.

Conclusion

In conclusion, the present study suggests when confronted with a threatening situation, such as bullying by peers at school, perceived self-efficacy in mastering the situation results in psychological well-being. That is, a sense of internal control over one's environment and a sense of control over one's thoughts, appears to foster an optimistic outlook on life. These components were thought to promote high self-esteem and act as protective factors to buffer one against stress, resulting in a resilient coping style that sustained one, and assisted one to persevere against adversities such as bullying by peers at school.

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Appendix A

SEI

Like
Me

Unlike
Me

- | | | |
|-------------------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Things usually don't bother me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. I find it very hard to talk in front of the class. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. There are lots of things about myself I'd change if I could. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. I can make up my mind without too much trouble. |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. I'm a lot of fun to be with. |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. I get upset easily at home. |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. It takes me a long time to get used to anything new. |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. I'm popular with kids my own age. |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. My parents usually consider my feelings. |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. I give in very easily. |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. My parents expect too much of me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. It's pretty tough to be me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. Things are all mixed up in my life. |
| <input type="checkbox"/> | <input type="checkbox"/> | 14. Kids usually follow my ideas. |
| <input type="checkbox"/> | <input type="checkbox"/> | 15. I have a low opinion of myself. |
| <input type="checkbox"/> | <input type="checkbox"/> | 16. There are many times when I'd like to leave home. |
| <input type="checkbox"/> | <input type="checkbox"/> | 17. I often feel upset in school. |
| <input type="checkbox"/> | <input type="checkbox"/> | 18. I'm not as nice looking as most people. |
| <input type="checkbox"/> | <input type="checkbox"/> | 19. If I have something to say, I usually say it. |
| <input type="checkbox"/> | <input type="checkbox"/> | 20. My parents understand me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 21. Most people are better liked than I am. |
| <input type="checkbox"/> | <input type="checkbox"/> | 22. I usually feel as if my parents are pushing me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 23. I often get discouraged at school. |
| <input type="checkbox"/> | <input type="checkbox"/> | 24. I often wish I were someone else. |
| <input type="checkbox"/> | <input type="checkbox"/> | 25. I can't be depended on. |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 26. I never worry about anything. |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 27. I'm pretty sure of myself. |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 28. I'm easy to like. |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 29. My parents and I have a lot of fun together. |

Short

☐

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Appendix B.1

Liking For School Scale

1.I feel proud to belong to this school

Agree (3) Disagree (1) Uncertain (2)

2. I wish that I had gone to a different school

Agree (1) Disagree (3) Uncertain (2)

3. I enjoy being at this school

Agree (3) Disagree (1) Uncertain (2)

4. I am looking forward to leaving this school

Agree (1) Disagree (3) Uncertain (2)

Circle the answer that best describes how you feel.

Appendix C.1

CASQ

Circle either the A answer or the B answer which best describes the way you would feel.

1. You get an A on a test.

PVG

A. I am smart

B. I am good in the subject that the test was in

2. You play a game with some friends and you win.

PSG

A. The people that I play with did not play the game well

B. I play that game well

3. You spend a night at a friend's house and you have a good time.

PVG

A. My friend was in a friendly mood that night

B. Everyone in my friend's family was in a friendly mood that night

4. You go on a holiday with a group of people and you have fun.

PSG

A. I was in a good mood

B. The people I was with were in good moods

5. All of your friends catch a cold except you.

PMG

A. I have been healthy lately

B. I am a healthy person

6. Your pet gets run over by a car.

PSB

A. I don't take good care of my pets

B. Drivers are not cautious enough

7. Some kids you know say that they don't like you

PSB

A. Once in a while people are mean to me

B. Once in a while I am mean to other people

8. You get very good grades.

PSG

A. School work is simple.

B. I am a hard worker

C.2

9. You meet a friend and your friend tells you that you look nice

PMG

A. My friend felt like praising the way people looked that day

B. Usually my friend praises the way people look

10. A good friend tells you that he hates you

PSB

A. My friend was in a bad mood that day

B. I wasn't nice to my friend that day

11. You tell a joke and no one laughs

PSB

A. I don't tell jokes well

B. The joke is so well known that it is no longer funny

12. Your teacher gives a lesson and you do not understand it

PVB

A. I didn't pay attention to anything that day

B. I didn't pay attention when my teacher was talking

13. You fail a test

PMB

A. My teacher makes hard tests

B. The past few weeks, my teacher has made hard tests

14. You gain a lot of weight and start to look fat

PSB

A. The food that I have to eat is fattening

B. I like fattening food

15. A person steals money from you

PVB

A. That person is dishonest

B. People are dishonest

16. Your parents praise something that you make

PSG

A. I am good at making some things

B. My parents like some things I make

17. You play a game and you win money

PVG

A. I am a lucky person

B. I am lucky when I play games

C.3

18. You almost drown when swimming in a river

PMB

A. I am not a very cautious person

B. Some days I am not a very cautious person

19. You are invited to a lot of parties

PSG

A. A lot of people have been acting friendly towards me lately

B. I have been acting friendly toward a lot of people lately

20. A grown-up yells at you

PVB

A. That person yelled at the first person he saw

b. That person yelled at a lot of people he saw that day

21. You do a project with a group of kids and it turns out badly

PVB

A. I don't work well with the people in the group

B. I never work well with a group

22. You make a new friend

PSG

A. I am a nice person

B. The people that I meet are nice

23. You have been getting along with your family

PMG

A. I am easy to get along with when I am with my family

B. Once in a while I am easy to get along with when I am with my family

24. You try to sell lollies, but no one will buy any

PMB

A. Lately a lot of children are selling things so people don't want to buy anything else

from children

B. People don't like to buy things from children

25. You play a game and you win

PVG

A. Sometimes I try as hard as I can at games

B. Sometimes I try as hard as I can

26. You get a bad grade at school

PSB

A. I am stupid

B. Teachers are unfair graders

C.4

27. You walk into a door and get a bloody nose

PVB

A. I wasn't looking where I was going

B. I have been careless lately

28. You miss the ball and your team loses the game

PMB

A. I didn't try hard when I played ball that day

B. I usually do not try hard when I am playing ball

29. You twist your ankle in gym

PSB

A. The past few weeks, the sports we played in gym class have been dangerous

B. The past few weeks I have been clumsy in gym class

30. Your parents take you to the beach and you have a good time

PVG

A. Everything at the beach was nice that day.

B. The weather at the beach was nice that day.

31. You take a train which arrives so late that you miss a movie.

PMB

A. The past few days there have been problems with the train being on time.

B. The trains are almost never on time.

32. Your mother makes you your favourite dinner.

PVG

A. There are a few things that my mother will do to please me.

B. My mother likes to please me.

33. A team that you are on loses a game.

PMB

A. The team members don't play well together.

B. That day the team members didn't play well together.

34. You finish your homework quickly.

PVG

A. Lately I have been doing everything quickly.

B. Lately I have been doing school work quickly.

35. Your teacher asks you a question and you give the wrong answer.

PMB

A. I get nervous when I have to answer questions

B. That day I got nervous when I had to answer questions

C.5

36. You get on the wrong bus and you get lost.

PMB

- A. That day I wasn't paying attention to what was going on.
- B. I usually don't pay attention to what's going on.

37. You go to an amusement park and you have a good time.

PVG

- A. I usually enjoy myself at amusement parks.
- B. I usually enjoy myself.

38. An older kid slaps you in the face.

PSB

- A. I teased his younger brother.
- B. His younger brother told him I had teased him.

39. You get all the toys you want on your birthday.

PMG

- A. People always guess right as to what toys to buy me for my birthday.
- B. This birthday, people guessed right as to what toys I wanted.

40. You take a holiday in the country and you have a wonderful time.

PMG

- A. The country is a beautiful place to be.
- B. The time of the year that we went was beautiful.

41. Your neighbours ask you over for dinner.

PMG

- A. Sometimes people are in kind moods.
- B. People are kind

42. You have a relief teacher and she likes you.

PMG

- A. I was well behaved during class that day.
- B. I am almost always well behaved during class.

43. You make your friends happy.

PMG

- A. I am a fun person to be with.
- B. Sometimes I am a fun person to be with.

44. You get a free ice cream cone.

PSG

- A. I was friendly to the ice cream man that day.
- B. The ice cream man was feeling friendly that day.

C.6

45. At your friend's party the magician asks you to help him out.

PSG

- A. It was just luck that I got picked.
- B. I looked really interested in what was going on.

46. You try to convince a kid to go to the movies with you, but he won't go

PVB

- A. That day he did not feel like doing anything.
- B. That day he did not feel like going to the movies.

47. Your parents get a divorce.

PVB

- A. It is hard for people to get along well when they are married.
- B. It is hard for my parents to get along well when they are married.

48. You have been trying to get into a club and you don't get in.

PVB

- A. I don't get along well with other people.
- B. I can't get along well with the people in the club.

**THANK YOU FOR
PARTICIPATING**

Appendix D.1

PRAQ

1	2	3
---	---	---

Please do
write in box

Section A

1 Are you male or female (Circle A or B)

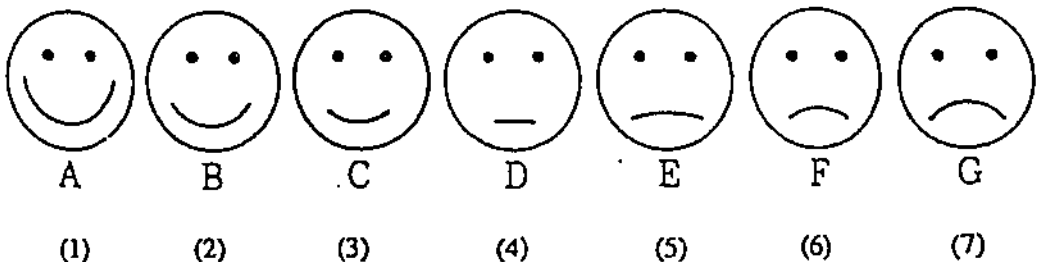
- | | | |
|--------|---|-----|
| Male | A | (1) |
| Female | B | (2) |

5

2 What is your year level? _____

6	7
---	---

3 Now look at these pictures and place a circle around the letter under the face which is most like you when you are at school?



8

4 Sometimes a stronger person or group of students will deliberately pick on someone weaker than themselves, and give that person a bad time. How often would you say this happens at this school? (Circle a letter)

- | | | |
|-----------|---|-----|
| Never | A | (1) |
| Sometimes | B | (2) |
| Often | C | (3) |

9

5 We call it *bullying* when someone is repeatedly hurting or frightening someone weaker than themselves for no good reason. This may be done in different ways: by hurtful teasing, threatening actions or gestures, name-calling or hitting or kicking.

Have you noticed bullying going on in this school in any of these places?
(Circle the word giving your answer for each place)

Place:	Your answer:		
In the classroom	Never (1)	Sometimes (2)	Often (3)
At recess/lunch	Never (1)	Sometimes (2)	Often (3)
On the way to school	Never (1)	Sometimes (2)	Often (3)
On the way home from school	Never (1)	Sometimes (2)	Often (3)

10

11

12

13

D.2

Section B

6. Did any of these things happen to you while you were being bullied this year?

(Circle your answer : if you were never bullied this year, circle 'never' in each case)

Your answer:

Being teased in an unpleasant way	Never (1)	Sometimes (2)	Often (3)
Being called hurtful names	Never (1)	Sometimes (2)	Often (3)
Being left out of things on purpose	Never (1)	Sometimes (2)	Often (3)
Being threatened with harm	Never (1)	Sometimes (2)	Often (3)
Being hit or kicked	Never (1)	Sometimes (2)	Often (3)

Add any other things below to describe what happened to you when you were bullied.

Now we would like you to make another estimate of how often you have been bullied by other students at school this year, this time on a daily or weekly basis.

Remember that it is not bullying when two young people of about the same strength have the odd fight or quarrel.

Bullying is when a stronger person deliberately and repeatedly hurts someone who is weaker.

7. How often *this year* have you been bullied by another student or group of students? (Circle a letter)

At least once a week A (1)	Less than once a week B (2)	Never C (3)
-------------------------------------	--------------------------------------	-------------------

D.3

8. After being bullied, how have you generally felt about it? (Circle a letter)

- | | | |
|---|---|-----|
| I have never been bullied at school | A | (1) |
| I have been bullied, but it hasn't really bothered me | B | (2) |
| I've felt mostly angry about it | C | (3) |
| I've felt mostly sad and miserable | D | (4) |

☐

21

9. How safe do you personally feel from being bullied by another student or a group of students at this school ? Circle a letter)

- | | | |
|---------------------------------|---|-----|
| I always feel safe | A | (1) |
| I usually feel safe | B | (2) |
| I feel safe about half the time | C | (3) |
| I usually don't feel safe | D | (4) |
| I never feel safe | E | (5) |

☐

22

10. Have you ever stayed away from school because of bullying? (Circle a letter)

- | | | |
|------------------------------------|---|-----|
| No, I've never thought of doing so | A | (1) |
| No, but I've thought of doing so | B | (2) |
| Yes, I have once or twice | C | (3) |
| Yes, more than twice | D | (4) |

☐

23

11 If you have ever been hurt at this school by someone bullying or harassing you, and this may include sexual harassment, and felt upset or unwell because of it, please explain what happened and how you felt in the space provided below.

Section C

If you have NEVER been bullied at school skip questions 12 and 13 and go to question 14

Answer the next two questions ONLY if you have been bullied by another student or group of students

12. Have you told any of the following about your being bullied?
(Circle for each person)

Person		
Your mother	YES (1)	NO (2)
Your father	YES (1)	NO (2)
A teacher or counsellor	YES (1)	NO (2)
A friend or friends	YES (1)	NO (2)

13. Did things generally improve after you told someone? (Circle a letter)
(Remember: answer this only if you have been bullied at school)

I was bullied but never told anyone	A	(1)
I told - and it got worse	B	(2)
I told - and the situation didn't change	C	(3)
I told - and things got better	D	(4)

Everybody should answer the next three questions.

14. Do you think that teachers at this school are interested in trying to stop bullying? (Circle a letter)

Not really	A	(1)
Only sometimes	B	(2)
Usually they are	C	(3)
They always are	D	(4)

15. Do you think that students and teachers should work together to stop bullying?
(Circle a letter)

Yes	A	(1)
Don't know	B	(2)
No	C	(3)

16. Would you be interested in talking about the problem of bullying at school with other students to see what can be done about stopping it? (*Circle a letter*)

Yes	A	(1)
Don't know	B	(2)
No	C	(3)

Now please add any other comments you would like to make about bullying at your school



Appendix E.1

CONSENT FORM

Dear Parent or Guardian,

I am a 4th Year Honours Psychology student at Edith Cowan University. As part of my degree, I will be conducting a study into peer relations among primary school aged children. Your school has agreed to participate in the study and your child's assistance would be greatly appreciated.

The study will be investigating the general happiness of the students at the school, the frequency and nature of any bullying that may be occurring in your school and the self-esteem of the students. The study may assist your school in developing appropriate policies to ensure that the students enjoy positive peer relations.

Collecting information for my study involves presenting your child with four anonymous questionnaires. The questionnaires will be administered to your child with other students during class time. The questionnaires will take approximately thirty minutes for your child to complete.

Participation in the study is voluntary and you may withdraw your child from the study at any time or your child may withdraw or decline to answer any questions.

You can be assured that your child's name will not be used in the published report of this study as I will not know their identity. As the questionnaires are anonymous I cannot inform you if your child is being bullied, however all

E.2

children will be informed that they can seek help from () the school counsellor on () if they are suffering from bullying. Parents may also contact the school counsellor. All information obtained from your child will remain confidential and the name of your school will not be included in the report. A copy of the report will be available for you if you would like to find out the results of the project.

If you have any queries please contact me on ().

Please return the permission slip below to your child's teacher by () so I may know the number of children who will be participating in the project.

Yours sincerely,

Catherine Rice

Supervisor: Ms Pike

Contact Telephone Number: 9400 5552

I give consent for my child to participate in the study described above.

Signed:

Date:

Descriptive Statistics

	Mean	Std. Deviation	N
SELFESTE	67.30	21.53	84
PRAQ	38.82	9.17	84
AGE	11.15	.74	84
Gender	.45	.50	84

Correlations

		SELFESTE	PRAQ	AGE	Gender
Pearson Correlation	SELFESTE	1.000	-.249	.193	-.054
	PRAQ	-.249	1.000	.308	.039
	AGE	.193	.308	1.000	.004
	Gender	-.054	.039	.004	1.000
Sig. (1-tailed)	SELFESTE	.	.011	.039	.313
	PRAQ	.011	.	.002	.363
	AGE	.039	.002	.	.486
	Gender	.313	.363	.486	.
N	SELFESTE	84	84	84	84
	PRAQ	84	84	84	84
	AGE	84	84	84	84
	Gender	84	84	84	84

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Gender, AGE, PRAQ ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: SELFESTE

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.379 ^a	.144	.112	20.29

a. Predictors: (Constant), Gender, AGE, PRAQ

b. Dependent Variable: SELFESTE

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5542.105	3	1847.368	4.485	.006 ^a
	Residual	32949.454	80	411.868		
	Total	38491.560	83			

a. Predictors: (Constant), Gender, AGE, PRAQ

b. Dependent Variable: SELFESTE

Coefficients^a

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.942	33.893		.057	.954
	PRAQ	-.796	.256	-.339	-3.113	.003
	AGE	8.701	3.180	.297	2.736	.008
	Gender	-1.806	4.452	-.042	-.406	.686

Coefficients^a

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	PRAQ	-.249	-.329	-.322	.904	1.106
	AGE	.193	.293	.283	.905	1.105
	Gender	-.054	-.045	-.042	.998	1.002

a. Dependent Variable: SELFESTE

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	PRAQ	AGE	Gender
1	1	3.501	1.000	.00	.00	.00	.03
	2	.464	2.747	.00	.01	.00	.97
	3	3.288E-02	10.319	.03	.96	.02	.00
	4	2.074E-03	41.087	.97	.03	.98	.00

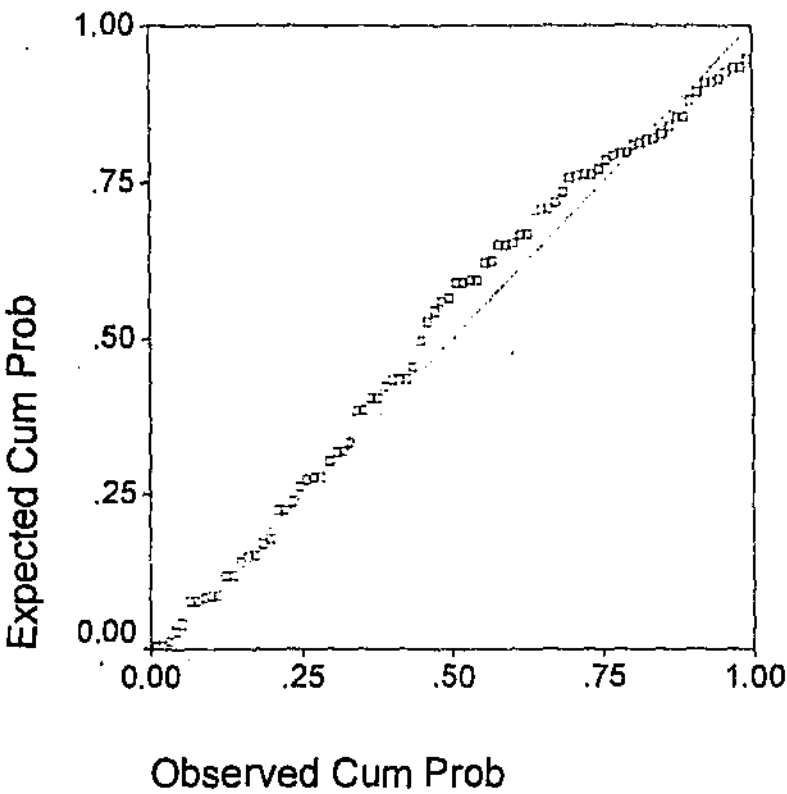
a. Dependent Variable: SELFESTE

Residuals Statistics^a

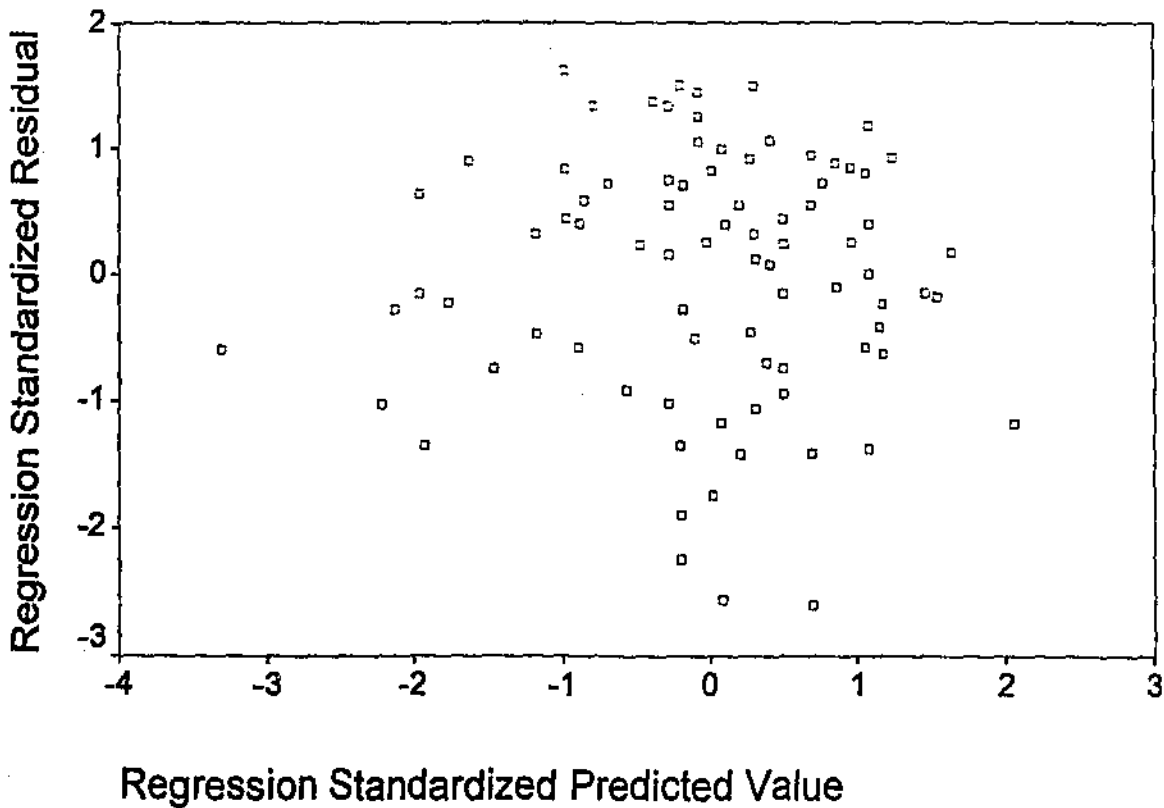
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	40.21	84.08	67.30	8.17	84
Std. Predicted Value	-3.316	2.054	.000	1.000	84
Standard Error of Predicted Value	3.07	7.84	4.34	.89	84
Adjusted Predicted Value	42.35	85.83	67.37	8.09	84
Residual	-52.99	32.75	-2.71E-15	19.92	84
Std. Residual	-2.611	1.614	.000	.982	84
Stud. Residual	-2.651	1.643	-.002	1.005	84
Deleted Residual	-54.62	33.96	-6.97E-02	20.89	84
Stud. Deleted Residual	-2.758	1.661	-.006	1.017	84
Mahal. Distance	.907	11.394	2.964	1.731	84
Cook's Distance	.000	.095	.012	.017	84
Centered Leverage Value	.011	.137	.036	.021	84

a. Dependent Variable: SELFESTE

Normal P-P Plot of Regression Sta
Dependent Variable: SELFESTE



Scatterplot
Dependent Variable: SELFESTE



Appendix G.1 Multiple Regression: SelfEsteem (Square Root transformation) Bullying in Schools 74

Descriptive Statistics

	Mean	Std. Deviation	N
SQSELF	5.4709	1.9538	84
AGE	11.15	.74	84
Gender	.45	.50	84
PRAQ	38.82	9.17	84

Correlations

		SQSELF	AGE	Gender	PRAQ
Pearson Correlation	SQSELF	1.000	-.145	.051	.274
	AGE	-.145	1.000	.004	.308
	Gender	.051	.004	1.000	.039
	PRAQ	.274	.308	.039	1.000
Sig. (1-tailed)	SQSELF	.	.095	.321	.006
	AGE	.095	.	.486	.002
	Gender	.321	.486	.	.363
	PRAQ	.006	.002	.363	.
N	SQSELF	84	84	84	84
	AGE	84	84	84	84
	Gender	84	84	84	84
	PRAQ	84	84	84	84

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	PRAQ, Gender, AGE ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: SQSELF

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.367 ^a	.135	.102	1.8514

a. Predictors: (Constant), PRAQ, Gender, AGE

b. Dependent Variable: SQSELF

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.627	3	14.209	4.146	.009 ^a
	Residual	274.203	80	3.428		
	Total	316.830	83			

a. Predictors: (Constant), PRAQ, Gender, AGE

b. Dependent Variable: SQSELF

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.982	3.092		3.229	.002
	AGE	-.670	.290	-.253	-2.311	.023
	Gender	.151	.406	.039	.372	.711
	PRAQ	7.466E-02	.023	.350	3.202	.002

Coefficients^a

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	AGE	-.145	-.250	-.240	.905	1.105
	Gender	.051	.042	.039	.998	1.002
	PRAQ	.274	.337	.333	.904	1.106

a. Dependent Variable: SQSELF

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	AGE	Gender	PRAQ
1	1	3.501	1.000	.00	.00	.03	.00
	2	.464	2.747	.00	.00	.97	.01
	3	3.288E-02	10.319	.03	.02	.00	.96
	4	2.074E-03	41.087	.97	.98	.00	.03

a. Dependent Variable: SQSELF

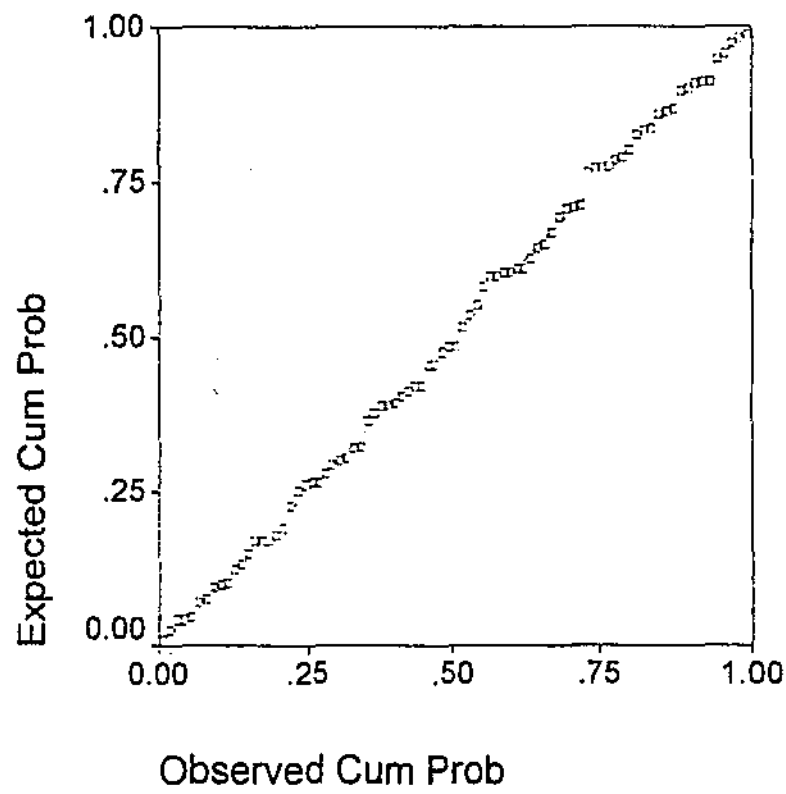
Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	4.0280	7.8342	5.4709	.7166	84
Std. Predicted Value	-2.013	3.298	.000	1.000	84
Standard Error of Predicted Value	.2798	.7151	.3958	8.139E-02	84
Adjusted Predicted Value	3.8556	7.7098	5.4659	.7124	84
Residual	-4.3719	4.0776	-1.59E-15	1.8176	84
Std. Residual	-2.361	2.203	.000	.982	84
Stud. Residual	-2.411	2.236	.001	1.005	84
Deleted Residual	-4.5568	4.2031	5.033E-03	1.9039	84
Stud. Deleted Residual	-2.488	2.295	.001	1.015	84
Mahal. Distance	.907	11.394	2.964	1.731	84
Cook's Distance	.000	.069	.012	.015	84
Centered Leverage Value	.011	.137	.036	.021	84

a. Dependent Variable: SQSELF

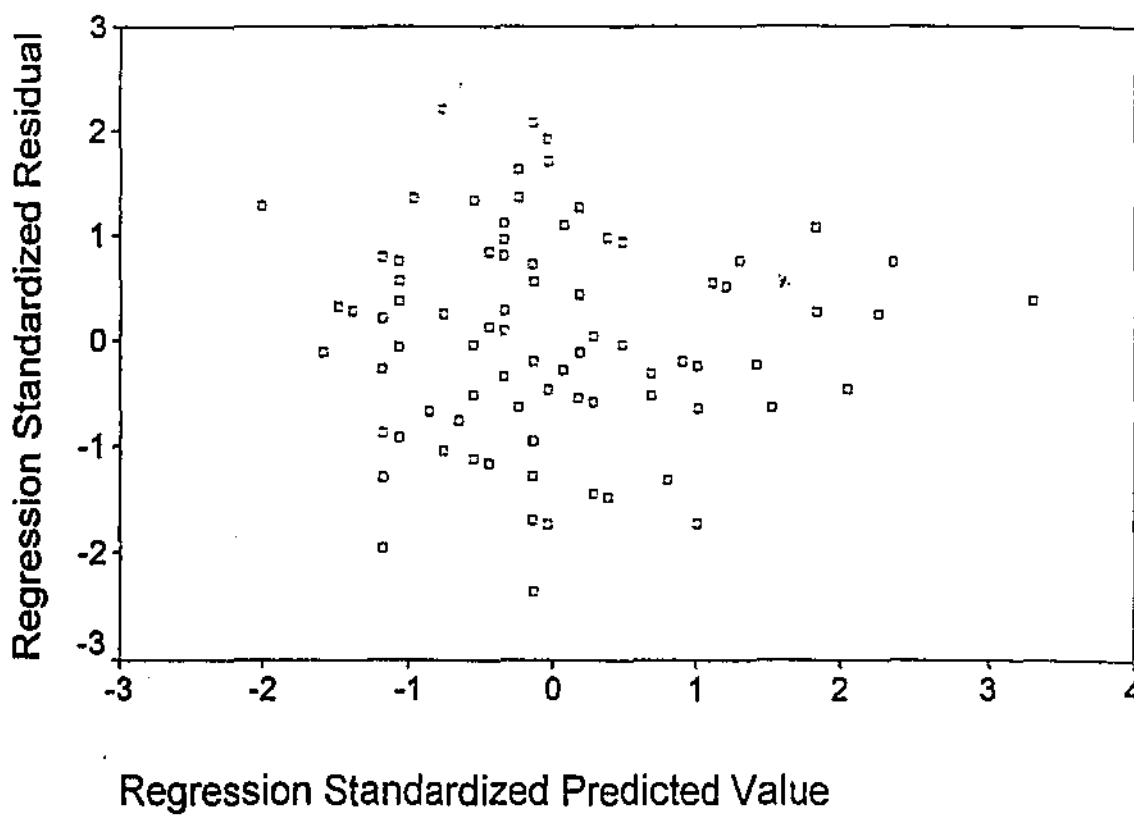
Normal P-P Plot of Regression S

Dependent Variable: SQSELF



Scatterplot

Dependent Variable: SQSELF



Descriptive Statistics

	Mean	Std. Deviation	N
LIKING	9.06	2.75	81
PRAQ	38.62	9.25	81
AGE	11.16	.73	81
Gender	.43	.50	81

Correlations

		LIKING	PRAQ	AGE	Gender
Pearson Correlation	LIKING	1.000	-.279	-.197	.062
	PRAQ	-.279	1.000	.310	.015
	AGE	-.197	.310	1.000	.013
	Gender	.062	.015	.013	1.000
Sig. (1-tailed)	LIKING	.	.006	.039	.290
	PRAQ	.006	.	.002	.448
	AGE	.039	.002	.	.454
	Gender	.290	.448	.454	.
N	LIKING	81	81	81	81
	PRAQ	81	81	81	81
	AGE	81	81	81	81
	Gender	81	81	81	81

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Gender, AGE, PRAQ ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: LIKING

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.310 ^a	.096	.061	2.66

a. Predictors: (Constant), Gender, AGE, PRAQ

b. Dependent Variable: LIKING

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.954	3	19.318	2.721	.050 ^a
	Residual	546.737	77	7.100		
	Total	604.691	80			

a. Predictors: (Constant), Gender, AGE, PRAQ

b. Dependent Variable: LIKING

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.845	4.557		3.697	.000
	PRAQ	-7.17E-02	.034	-.241	-2.117	.037
	AGE	-.464	.428	-.124	-1.084	.282
	Gender	.372	.598	.068	.623	.535

Coefficients^a

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	PRAQ	-.279	-.235	-.229	.904	1.106
	AGE	-.197	-.123	-.117	.904	1.106
	Gender	.062	.071	.068	1.000	1.000

a. Dependent Variable: LIKING

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	PRAQ	AGE	Gender
1	1	3.479	1.000	.00	.00	.00	.03
	2	.486	2.677	.00	.01	.00	.97
	3	3.374E-02	10.154	.02	.95	.02	.00
	4	2.047E-03	41.222	.97	.04	.98	.00

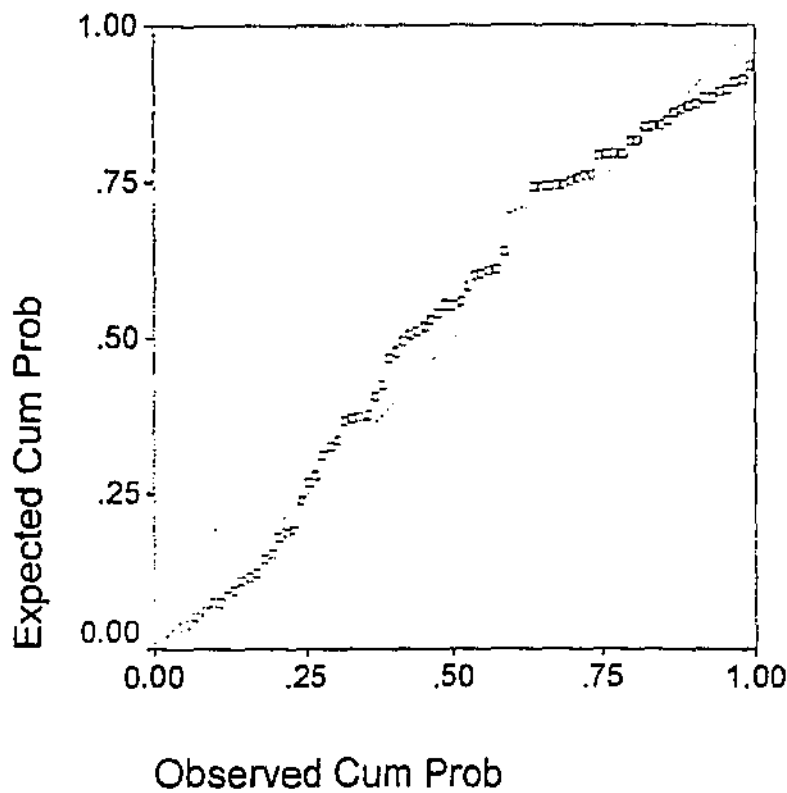
a. Dependent Variable: LIKING

Residuals Statistics^a

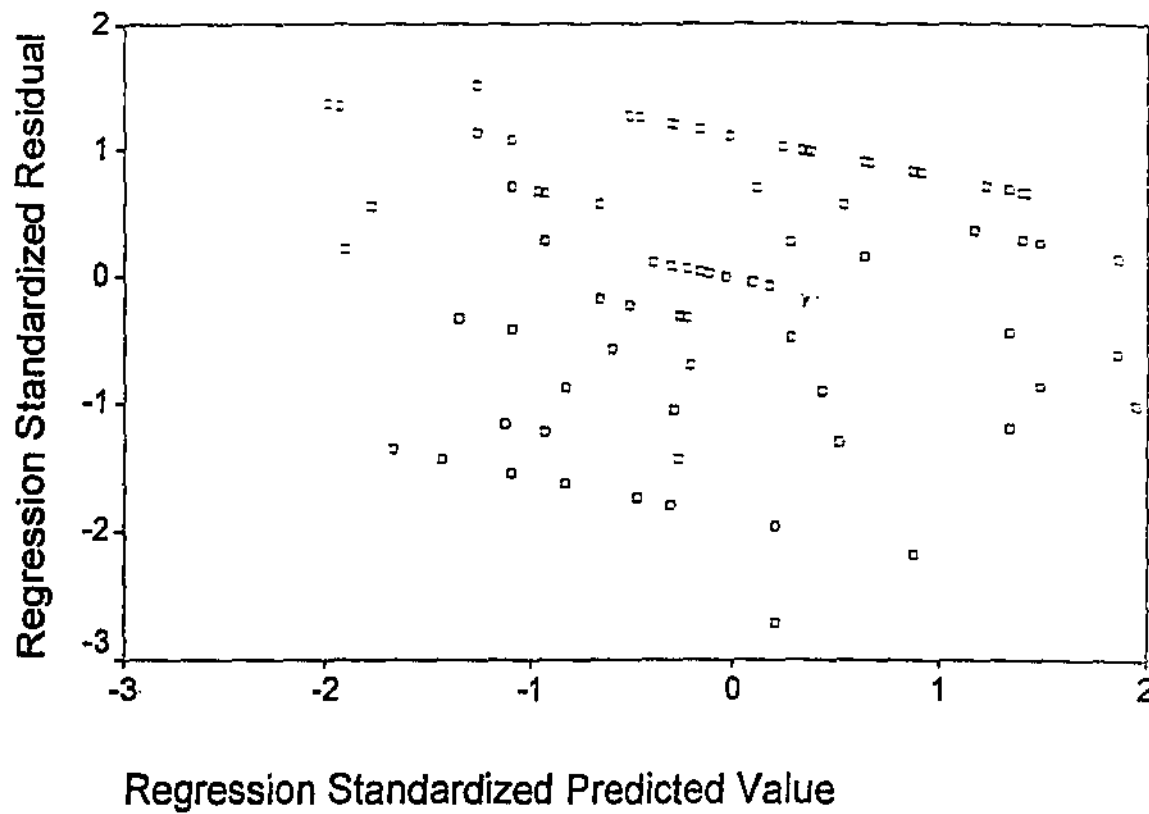
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	7.37	10.72	9.06	.85	81
Std. Predicted Value	-1.987	1.944	.000	1.000	81
Standard Error of Predicted Value	.40	1.07	.58	.12	81
Adjusted Predicted Value	6.93	10.92	9.06	.87	81
Residual	-7.23	4.02	1.64E-15	2.61	81
Std. Residual	-2.715	1.508	.000	.981	81
Stud. Residual	-2.748	1.540	.000	1.007	81
Deleted Residual	-7.41	4.19	-2.26E-03	2.76	81
Stud. Deleted Residual	-2.874	1.554	-.005	1.018	81
Mahal. Distance	.842	11.809	2.963	1.790	81
Cook's Distance	.000	.151	.014	.021	81
Centered Leverage Value	.011	.148	.037	.022	81

a. Dependent Variable: LIKING

Normal P-P Plot of Regression S
Dependent Variable: LIKING



Scatterplot
Dependent Variable: LIKING



Appendix I.1 Multiple Regression: Liking (Square Root Transformation) Bullying in Schools 82

Descriptive Statistics

	Mean	Std. Deviation	N
SQLIKING	1.8660	.6899	84
PRAQ	38.82	9.17	84
Gender	.45	.50	84
AGE	11.15	.74	84

Correlations

		SQLIKING	PRAQ	Gender	AGE
Pearson Correlation	SQLIKING	1.000	.289	-.028	.226
	PRAQ	.289	1.000	.039	.308
	Gender	-.028	.039	1.000	.004
	AGE	.226	.308	.004	1.000
Sig. (1-tailed)	SQLIKING	.	.004	.401	.019
	PRAQ	.004	.	.363	.002
	Gender	.401	.363	.	.486
	AGE	.019	.002	.486	.
N	SQLIKING	84	84	84	84
	PRAQ	84	84	84	84
	Gender	84	84	84	84
	AGE	84	84	84	84

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	AGE, Gender, PRAQ ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: SQLIKING

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.325 ^a	.106	.072	.6646

a. Predictors: (Constant), AGE, Gender, PRAQ

b. Dependent Variable: SQLIKING

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.172	3	1.391	3.148	.030 ^a
	Residual	35.339	80	.442		
	Total	39.510	83			

a. Predictors: (Constant), AGE, Gender, PRAQ

b. Dependent Variable: Sqliking

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.401	1.110		-.362	.719
	PRAQ	1.835E-02	.008	.244	2.193	.031
	Gender	-5.21E-02	.146	-.038	-.357	.722
	AGE	.141	.104	.151	1.359	.178

Coefficients^a

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	PRAQ	.289	.238	.232	.904	1.106
	Gender	-.028	-.040	-.038	.998	1.002
	AGE	.226	.150	.144	.905	1.105

a. Dependent Variable: SQLIKING

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	PRAQ	Gender	AGE
1	1	3.501	1.000	.00	.00	.03	.00
	2	.464	2.747	.00	.01	.97	.00
	3	3.288E-02	10.319	.03	.96	.00	.02
	4	2.074E-03	41.087	.97	.03	.00	.98

a. Dependent Variable: SQLIKING

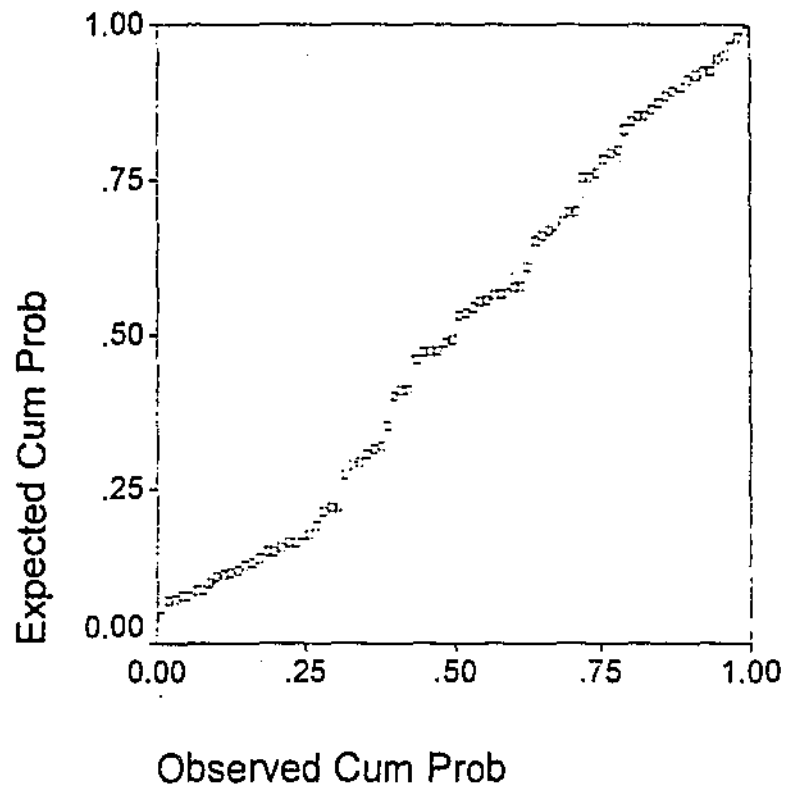
Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.4388	2.3274	1.8660	.2242	84
Std. Predicted Value	-1.906	2.058	.000	1.000	84
Standard Error of Predicted Value	.1004	.2567	.1421	2.922E-02	84
Adjusted Predicted Value	1.3803	2.4129	1.8656	.2287	84
Residual	-1.1410	1.5191	-1.16E-16	.6525	84
Std. Residual	-1.717	2.286	.000	.982	84
Stud. Residual	-1.753	2.313	.000	1.007	84
Deleted Residual	-1.1892	1.5558	4.119E-04	.6863	84
Stud. Deleted Residual	-1.776	2.379	.002	1.014	84
Mahal. Distance	.907	11.394	2.964	1.731	84
Cook's Distance	.000	.106	.013	.016	84
Centered Leverage Value	.011	.137	.036	.021	84

a. Dependent Variable: SQLIKING

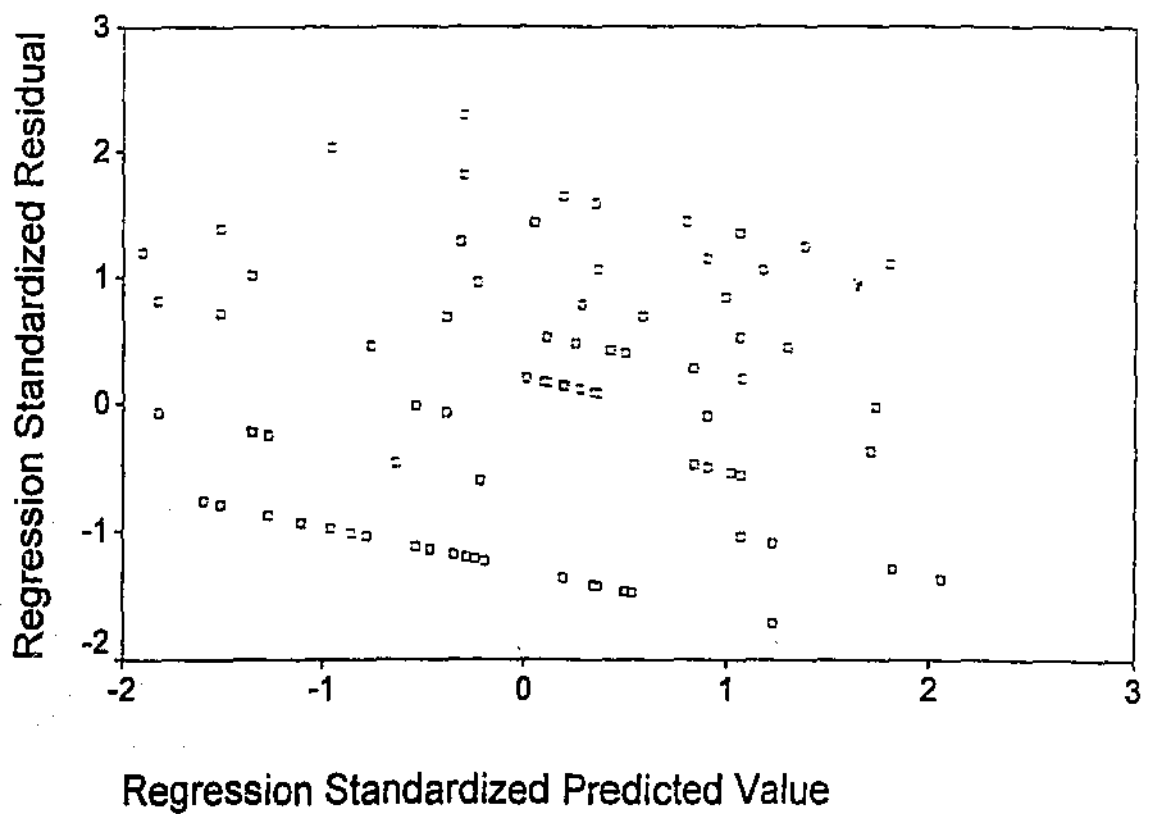
Normal P-P Plot of Regression Sta

Dependent Variable: SQLIKING



Scatterplot

Dependent Variable: SQLIKING



Descriptive Statistics

	Mean	Std. Deviation	N
CASQ	5.64	4.58	75
PRAQ	38.09	8.74	75
AGE	11.16	.74	75
Gender	.43	.50	75

Correlations

		CASQ	PRAQ	AGE	Gender
Pearson Correlation	CASQ	1.000	-.196	.009	-.222
	PRAQ	-.196	1.000	.369	-.025
	AGE	.009	.369	1.000	-.004
	Gender	-.222	-.025	-.004	1.000
Sig. (1-tailed)	CASQ	.	.046	.468	.028
	PRAQ	.046	.	.001	.416
	AGE	.468	.001	.	.485
	Gender	.028	.416	.485	.
N	CASQ	75	75	75	75
	PRAQ	75	75	75	75
	AGE	75	75	75	75
	Gender	75	75	75	75

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Gender, AGE, PRAQ ^a	.	Enter

- a. All requested variables entered.
- b. Dependent Variable: CASQ

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.312 ^a	.098	.060	4.45

- a. Predictors: (Constant), Gender, AGE, PRAQ
- b. Dependent Variable: CASQ

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	151.879	3	50.626	2.561	.062 ^a
	Residual	1403.401	71	19.766		
	Total	1555.280	74			

- a. Predictors: (Constant), Gender, AGE, PRAQ
- b. Dependent Variable: CASQ

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.607	7.898		.583	.562
	PRAQ	-.124	.064	-.237	-1.951	.055
	AGE	.596	.756	.096	.789	.433
	Gender	-2.093	1.038	-.227	-2.016	.048

Coefficients^a

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	PRAQ	-.196	-.226	-.220	.863	1.159
	AGE	.009	.093	.089	.864	1.158
	Gender	-.222	-.233	-.227	.999	1.001

a. Dependent Variable: CASQ

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	PRAQ	AGE	Gender
1	1	3.473	1.000	.00	.00	.00	.03
	2	.494	2.651	.00	.01	.00	.96
	3	3.027E-02	10.713	.03	.93	.02	.01
	4	2.010E-03	41.572	.97	.06	.98	.00

a. Dependent Variable: CASQ

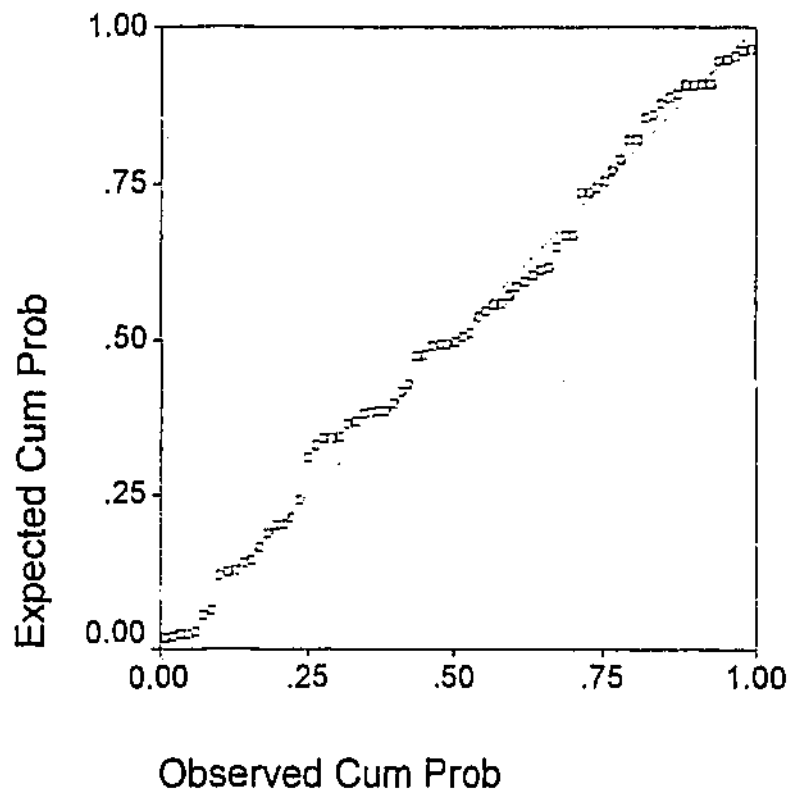
Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.12	8.29	5.64	1.43	75
Std. Predicted Value	-2.456	1.847	.000	1.000	75
Standard Error of Predicted Value	.69	1.58	1.01	.20	75
Adjusted Predicted Value	2.31	8.31	5.64	1.43	75
Residual	-9.32	8.03	-3.08E-16	4.35	75
Std. Residual	-2.096	1.806	.000	.980	75
Stud. Residual	-2.131	1.865	.000	1.007	75
Deleted Residual	-9.63	8.56	2.38E-04	4.60	75
Stud. Deleted Residual	-2.187	1.899	-.001	1.018	75
Mahal. Distance	.820	8.413	2.960	1.632	75
Cook's Distance	.000	.084	.014	.018	75
Centered Leverage Value	.011	.114	.040	.022	75

a. Dependent Variable: CASQ

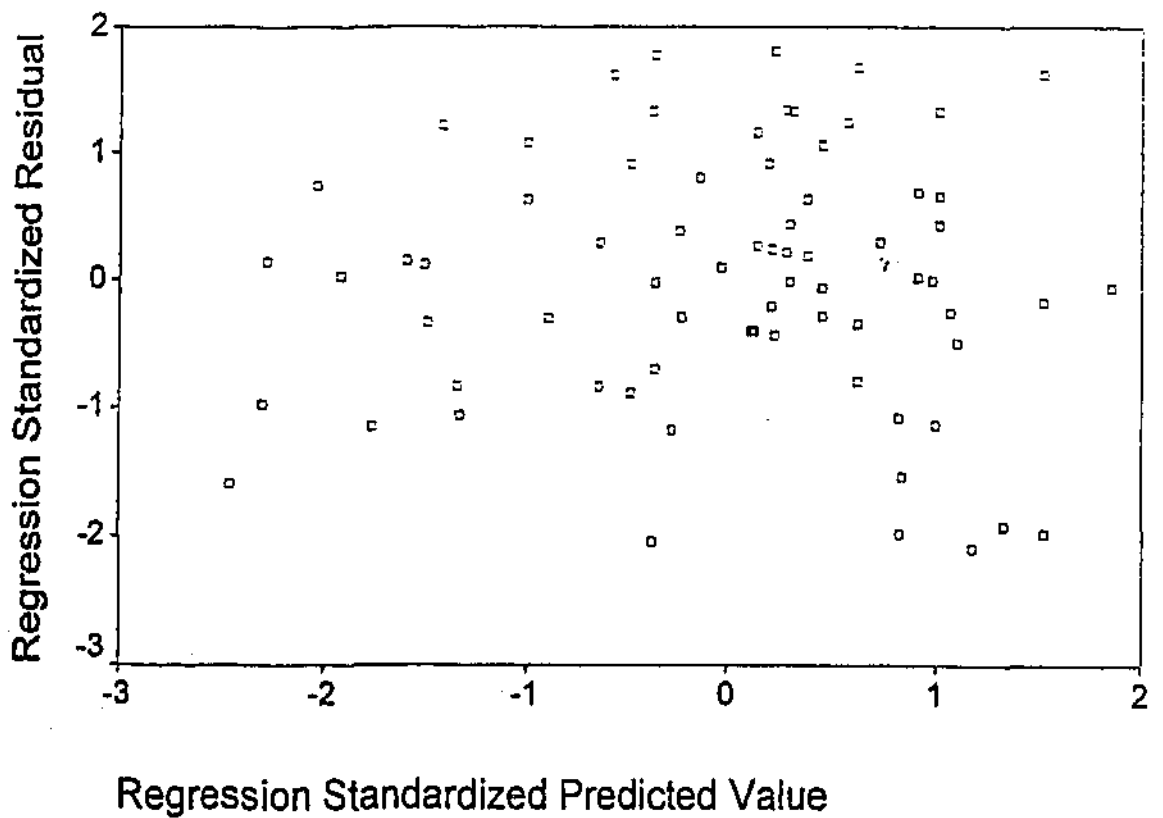
Normal P-P Plot of Regression Sta

Dependent Variable: CASQ



Scatterplot

Dependent Variable: CASQ



Descriptive Statistics

	Mean	Std. Deviation	N
CASQ	5.43	4.41	84
AGE	11.15	.74	84
PRAQ	38.82	9.17	84
Gender	.45	.50	84

Correlations

		CASQ	AGE	PRAQ	Gender
Pearson Correlation	CASQ	1.000	.016	-.243	-.220
	AGE	.016	1.000	.308	.004
	PRAQ	-.243	.308	1.000	.039
	Gender	-.220	.004	.039	1.000
Sig. (1-tailed)	CASQ	.	.441	.013	.022
	AGE	.441	.	.002	.486
	PRAQ	.013	.002	.	.363
	Gender	.022	.486	.363	.
N	CASQ	84	84	84	84
	AGE	84	84	84	84
	PRAQ	84	84	84	84
	Gender	84	84	84	84

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	Gender, AGE, PRAQ ^a	.	Enter

- a. All requested variables entered.
- b. Dependent Variable: CASQ

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.335 ^a	.112	.079	4.23

- a. Predictors: (Constant), Gender, AGE, PRAQ
- b. Dependent Variable: CASQ

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	181.207	3	60.402	3.371	.022 ^a
	Residual	1433.364	80	17.917		
	Total	1614.571	83			

- a. Predictors: (Constant), Gender, AGE, PRAQ
- b. Dependent Variable: CASQ

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.614	7.069		.653	.516
	AGE	.592	.663	.099	.893	.375
	PRAQ	-.128	.053	-.265	-2.395	.019
	Gender	-1.849	.929	-.210	-1.991	.050

Coefficients^a

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	AGE	.016	.099	.094	.905	1.105
	PRAQ	-.243	-.259	-.252	.904	1.106
	Gender	-.220	-.217	-.210	.998	1.002

a. Dependent Variable: CASQ

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	AGE	PRAQ	Gender
1	1	3.501	1.000	.00	.00	.00	.03
	2	.464	2.747	.00	.00	.01	.97
	3	3.288E-02	10.319	.03	.02	.96	.00
	4	2.074E-03	41.087	.97	.98	.03	.00

a. Dependent Variable: CASQ

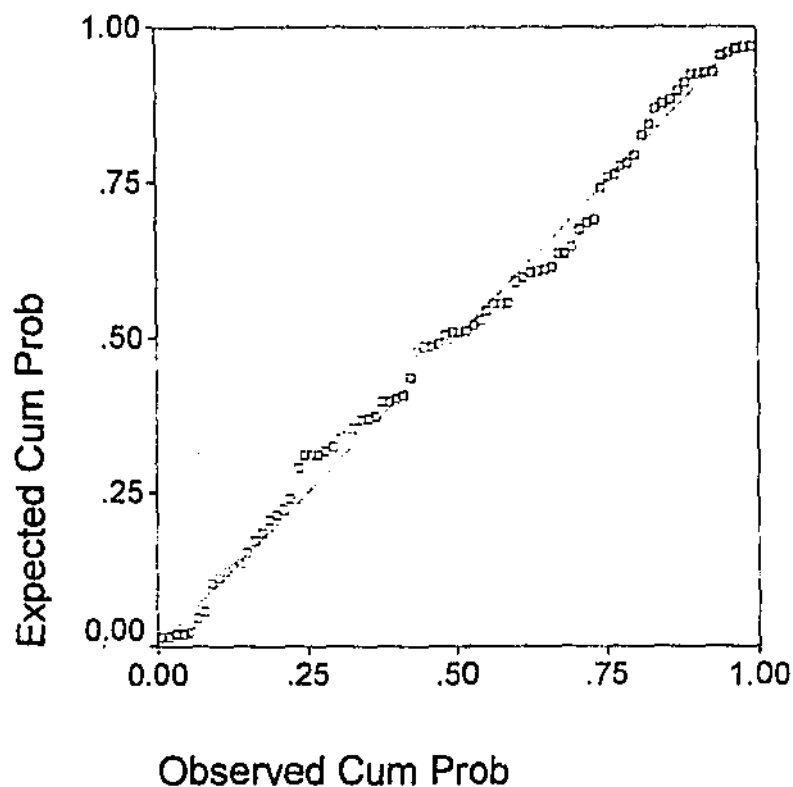
Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.16	8.15	5.43	1.48	84
Std. Predicted Value	-2.891	1.840	.000	1.000	84
Standard Error of Predicted Value	.64	1.63	.90	.19	84
Adjusted Predicted Value	1.18	3.16	5.43	1.47	84
Residual	-9.20	7.91	6.24E-16	4.16	84
Std. Residual	-2.172	1.869	.000	.982	84
Stud. Residual	-2.210	1.924	.000	1.005	84
Deleted Residual	-9.52	8.38	-4.54E-04	4.36	84
Stud. Deleted Residual	-2.266	1.958	-.001	1.016	84
Mahal. Distance	.907	11.394	2.964	1.731	84
Cook's Distance	.000	.063	.012	.016	84
Centered Leverage Value	.011	.137	.036	.021	84

a. Dependent Variable: CASQ

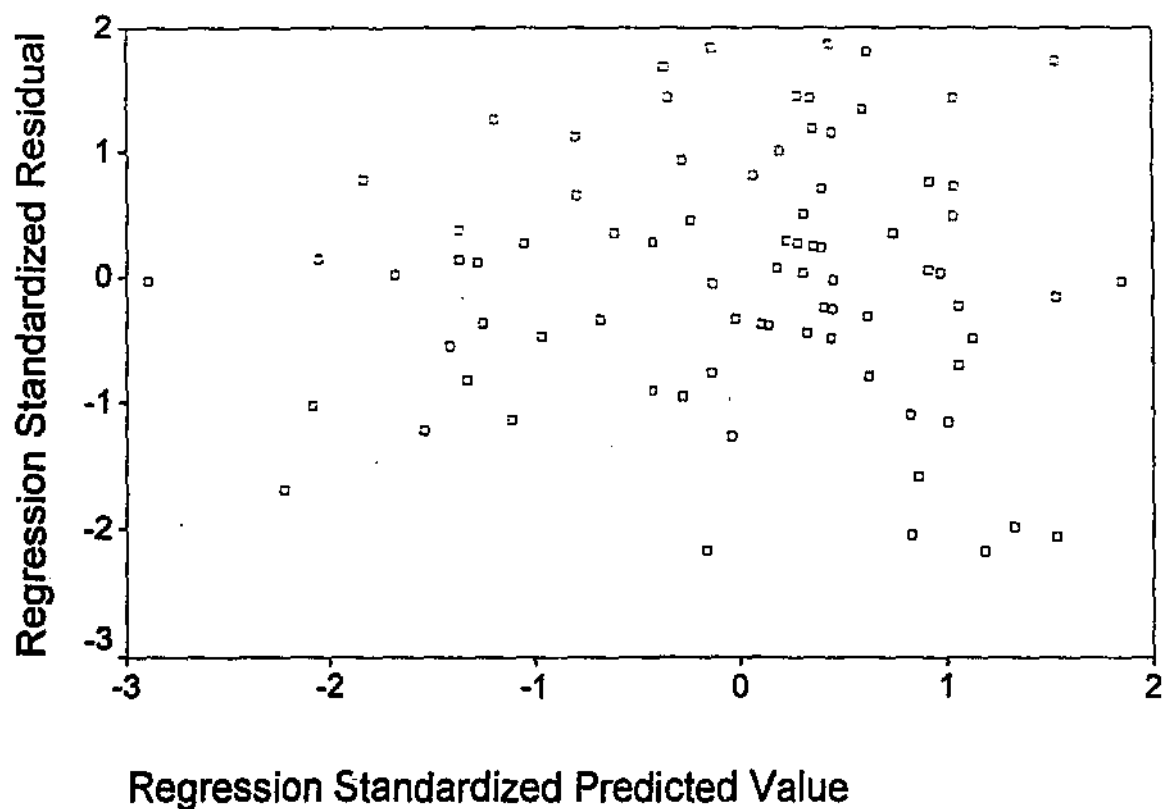
Normal P-P Plot of Regression Sta

Dependent Variable: CASQ



Scatterplot

Dependent Variable: CASQ



NPar Tests Appendix L.1 Krusal – Wallis Tests: PRAQ

Kruskal-Wallis Test

Ranks

	Grade	N	Mean Rank
PRAQ	5	14	34.68
	6	40	40.19
	7	30	49.23
	Total	84	

Test Statistics^{a, b}

	PRAQ
Chi-Square	4.097
df	2
Asymp. Sig.	.129

- a. Kruskal Wallis Test
- b. Grouping Variable: Grade

NPar Tests

Kruskal-Wallis Test

Ranks

	Gender	N	Mean Rank
PRAQ	female	46	41.93
	male	38	43.18
	Total	84	

Test Statistics^{a, b}

	PRAQ
Chi-Square	.055
df	1
Asymp. Sig.	.815

- a. Kruskal Wallis Test
- b. Grouping Variable: Gender

Appendix M.1 One- Way Chi-Square Tests of PRAQ

Chi-Square Test

Frequencies

q4

	Observed N	Expected N	Residual
never	7	28.0	-21.0
sometimes	45	28.0	17.0
often	32	28.0	4.0
Total	84		

Test Statistics

	q4
Chi-Square ^a	26.643
df	2
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests

Chi-Square Test

Frequencies

q2

	Observed N	Expected N	Residual
never	7	28.0	-21.0
sometimes	57	28.0	29.0
often	20	28.0	-8.0
Total	84		

Test Statistics

	q2
Chi-Square ^a	48.071
df	2
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests

Chi-Square Test

Frequencies

q3

	Observed N	Expected N	Residual
never	38	28.0	10.0
sometimes	39	28.0	11.0
often	7	28.0	-21.0
Total	84		

Test Statistics

	q3
Chi-Square ^a	23.643
df	2
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests

Chi-Square Test

Frequencies

q7

	Observed N	Expected N	Residual
never	45	28.0	17.0
sometimes	28	28.0	.0
often	11	28.0	-17.0
Total	84		

Test Statistics

	q7
Chi-Square ^a	20.643
df	2
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

q7

	Observed N	Expected N	Residual
never	45	28.0	17.0
sometimes	28	28.0	.0
often	11	28.0	-17.0
Total	84		

Test Statistics

	q7
Chi-Square ^a	20.643
df	2
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests**Chi-Square Test****Frequencies**

q8

	Observed N	Expected N	Residual
never	31	28.0	3.0
sometimes	42	28.0	14.0
often	11	28.0	-17.0
Total	84		

Test Statistics

	q8
Chi-Square ^a	17.643
df	2
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests**Chi-Square Test****Frequencies**

q9

	Observed N	Expected N	Residual
never	39	28.0	11.0
sometimes	32	28.0	4.0
often	13	28.0	-15.0
Total	84		

Test Statistics

	q9
Chi-Square ^a	12.929
df	2
Asymp. Sig.	.002

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests

Chi-Square Test

Frequencies

q10

	Observed N	Expected N	Residual
never	66	28.0	38.0
sometimes	8	28.0	-20.0
often	10	28.0	-18.0
Total	84		

Test Statistics

	q10
Chi-Square ^a	77.429
df	2
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests

Chi-Square Test

Frequencies

q11

	Observed N	Expected N	Residual
never	51	28.0	23.0
sometimes	28	28.0	.0
often	5	28.0	-23.0
Total	84		

Test Statistics

	q11
Chi-Square ^a	37.786
df	2
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests**Chi-Square Test****Frequencies**

q12

	Observed N	Expected N	Residual
at least once a week	14	28.0	-14.0
less than once a week	28	28.0	.0
never	42	28.0	14.0
Total	84		

Test Statistics

	q12
Chi-Square ^a	14.000
df	2
Asymp. Sig.	.001

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests**Chi-Square Test****Frequencies**

q13

	Observed N	Expected N	Residual
never been bullied	22	21.0	1.0
bullied but not bothered	31	21.0	10.0
angry about it	12	21.0	-9.0
felt sad and miserable	19	21.0	-2.0
Total	84		

Test Statistics

	q13
Chi-Square ^a	8.857
df	3
Asymp. Sig.	.031

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 21.0.

NPar Tests

Chi-Square Test

Frequencies

q14

	Observed N	Expected N	Residual
always feel safe	44	16.8	27.2
usuualy feel safe	23	16.8	6.2
feel safe half the time	9	16.8	-7.8
usually don't feel safe	2	16.8	-14.8
never feel safe	6	16.8	-10.8
Total	84		

Test Statistics

	q14
Chi-Square ^a	69.929
df	4
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 16.8.

NPar Tests

Chi-Square Test

Frequencies

q15

	Observed N	Expected N	Residual
No, I never thought of staying away	59	21.0	38.0
No, but I've thought of doing so	13	21.0	-8.0
Yes I have once or twice	9	21.0	-12.0
Yes more than twice	3	21.0	-18.0
Total	84		

Test Statistics

	q15
Chi-Square ^a	94.095
df	3
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 21.0.

NPar Tests

Chi-Square Test

Frequencies

q16

	Observed N	Expected N	Residual
never been bullied	29	28.0	1.0
yes	40	28.0	12.0
no	15	28.0	-13.0
Total	84		

Test Statistics

	q16
Chi-Square ^a	11.214
df	2
Asymp. Sig.	.004

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests

Chi-Square Test

Frequencies

q17

	Observed N	Expected N	Residual
never been bullied	29	28.0	1.0
yes	24	28.0	-4.0
no	31	28.0	3.0
Total	84		

Test Statistics

	q17
Chi-Square ^a	.929
df	2
Asymp. Sig.	.629

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests

Chi-Square Test

Frequencies

q18

	Observed N	Expected N	Residual
never been bullied	29	28.0	1.0
yes	24	28.0	-4.0
no	31	28.0	3.0
Total	84		

Test Statistics

	q18
Chi-Square ^a	.929
df	2
Asymp. Sig.	.629

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests**Chi-Square Test****Frequencies**

q19

	Observed N	Expected N	Residual
never been bullied	29	28.0	1.0
yes	33	28.0	5.0
no	22	28.0	-6.0
Total	84		

Test Statistics

	q19
Chi-Square ^a	2.214
df	2
Asymp. Sig.	.331

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests**Chi-Square Test****Frequencies**

q20

	Observed N	Expected N	Residual
never been bullied	29	16.8	12.2
bullied but told no one	4	16.8	-12.8
told -got worse	5	16.8	-11.8
told- situation didn't change	14	16.8	-2.8
told-things got better	32	16.8	15.2
Total	84		

Test Statistics

	q20
Chi-Square ^a	41.119
df	4
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 16.8.

NPar Tests**Chi-Square Test****Frequencies**

q21

	Observed N	Expected N	Residual
not really	16	21.0	-5.0
only sometimes	21	21.0	.0
usually they are	15	21.0	-6.0
they always are	32	21.0	11.0
Total	84		

Test Statistics

	q21
Chi-Square ^a	8.667
df	3
Asymp. Sig.	.034

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 21.0.

NPar Tests

Chi-Square Test

Frequencies

q22

	Observed N	Expected N	Residual
yes	51	28.0	23.0
don't know	24	28.0	-4.0
no	9	28.0	-19.0
Total	84		

Test Statistics

	q22
Chi-Square ^a	32.357
df	2
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.

NPar Tests

Chi-Square Test

Frequencies

q23

	Observed N	Expected N	Residual
yes	34	28.0	6.0
don't know	28	28.0	.0
no	22	28.0	-6.0
Total	84		

Test Statistics

	q23
Chi-Square ^a	2.571
df	2
Asymp. Sig.	.276

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 28.0.