Adolescent substance use and bullying: Is there a link?

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Objectives. To investigate experiences of substance use, bullying and psychological distress in adolescents. Differential patterns of substance use and levels of psychological distress were explored according to bullying status (bullies, victims, bully-victims and controls). There is little previous research exploring the relationship between bullying and substance use.

Design. A between groups cross-sectional design was employed.

Method. Students aged 13-16 years were recruited from several inner city schools. 263 students completed the Revised Olweus Bully/Victim Questionnaire, the Birlesen Depression Scale, the Spence Children's Anxiety Scale, the Rosenberg Self-esteem Scale and a measure of substance use designed by the researcher.

Results. Victims and bully-victims were significantly more psychologically distressed, with higher levels of anxiety, depression and lower self-esteem, than bullies or controls. Those participants with higher levels of psychological distress used stimulants and hallucinogens more frequently than those with lower levels of psychological distress. There was no significant positive correlation between victim-hood and bully-victim-hood with frequency of substance use. A negative correlation was found between victim-hood and use of hallucinogens and depressants. Being a bully was found to be positively correlated with use of depressants. Finally, reasons for substance use appear to vary according to bullying status. Bullies used substances to 'have a good time' and 'fit in with friends'. Victims used substances to 'block out bad things that had happened to them' and to 'block out negative feelings'. These results highlighted the unique identifiable patterns of substance use according to bully and victim status. However, bully-victims did not appear to have a unique pattern of substance use.

Conclusion. Clinical implications of the results include the recognition of a complex association between substance use and bullying. Clinical services are encouraged to consider the differential patterns of substance use according to bullying status, and the subsequent requirement for different interventions and prevention strategies.

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Chapter One: Introduction

1.1 *Overview*

The present study investigates whether there is a link between the experience of bullying and substance use by adolescents and in addition whether there exist differential patterns of substance use according to bullying status, that is, bully, victim and bully/victim.

This introductory chapter reviews the research literature concerning the definition of adolescence and whether it is a period of turmoil. The review will then consider the incidence of bullying, the long-term effects of bullying and the characteristics of those adolescents involved in bullying. In addition, the different theories of the aetiology of substance use in adolescence will be reviewed, including, peer rejection, self-identity, peer pressure and the self-medication hypothesis (Khantzian, 1985). Consideration will be given as to how these two common adolescent occurrences are associated.

The first section will briefly address the incidence of substance use and bullying in adolescence and the relevance of these issues to contemporary society. Secondly, definitions of adolescence will be considered, with particular reference to adolescence as a period of turmoil. For the purposes of this study substance use will include use of illicit substances and alcohol.

1.2 *Incidence of Adolescent Substance Use and Bullying*

The use of licit and illicit substances by adolescents is of increasing interest and concern to both the public and professionals. Data suggest that drug use amongst adolescents has almost doubled since the early 1990's (European Drugs Monitoring Centre, 1998). Recent research (The European School Survey project on Alcohol and other Drugs, ESPAD, 1999) found that 91% of students in the UK, aged 15 to 16 years, had been drinking alcohol during the last 12 months. This is above the average of other European countries. ESPAD also estimated that lifetime prevalence of cigarette smoking is 65%, use of marijuana is

35% and use of other illicit drugs is 12-15%. An earlier study (Miller and Plant, 1995) found that UK teenagers reported the highest level of illicit drug use amongst the 23 countries surveyed. UK teenagers also reported high levels of alcohol-related problems.

Research suggests that substance use in adolescence, including the use of alcohol, is closely associated with poor academic attainment, delinquency and family problems (Friedman, Kramer, Kreisher and Granick, 1996). Of particular importance is the positive correlation of substance use with mental health disorders, such as depression, anxiety and suicide (Shaffer, Gould, Fisher, Trautman, Moreau, Kleinman & Flory, 1996).

Bullying is also a frequent occurrence amongst young people. Research found that 20% of middle school children and 18% of secondary school children reported being bullied 'sometimes', 'now and then' or 'more often' (Ahmad and Smith,1989, cited in Whitney & Smith, 1993). The literature also suggests that bullying has considerable negative effects on the victim's health, both psychologically and physically. Rigby (1999) found that children who are frequently bullied by peers have below average health, they are often anxious and insecure, have lower self-esteem, are less happy and have lower levels of global self-worth than non-victims.

1.3 *Adolescence*

1.3.1 *Definitions of Adolescence*

This section will review the different definitions of adolescence according to the developmental, psychoanalytic and sociological theorists. Adolescence as a period of 'inner turmoil' (Rutter, Graham, Chadwick and Yule, 1976) will be considered. In addition, adolescence and coping and the social context of adolescence will be reviewed.

Over the last three decades the definition of adolescence has become more uncertain; it is unclear when this stage begins, some state it begins with secondary school (Denscombe and Druquer,1999) others when puberty commences (Marcia, 1980). This confusion reflects uncertainty and ambiguity, an important aspect of adolescence. Adolescence is the age period which is characterised by an "identity crisis". It is said that adolescents become increasingly distanced from parents and form closer attachments to their peer group. Erikson (1955) cited in Rutter, Graham, Chadwick and Yule, (1976) described identity formation, that is the development of self, as the main characteristic of adolescence, which proceeds from identity diffusion to the achievement of a solid, defined subjective ego identity. Marcia (1980) cited in Hill (1993) redefined Erikson's original ideas and developed a model of adolescence with four identity statuses: diffusion, foreclosure, moratorium and achievement. When compared to identity achievement identity diffusion has been shown to be associated with conformity and susceptibility to peer pressure (Adams & Adams, 1991). Jones and Hartman (1988) cited in Hill, (1993) found adolescents with identity diffusion to be most likely to abuse drugs and alcohol.

Adolescence is generally thought of as a transition stage, resulting from a number of both internal and external pressures. Coleman (1993) suggests that it is the 'interplay of these forces which contribute to the success or failure of the transition from childhood to maturity' (p.138).

The psychoanalytic definition (Freud, 1901) of adolescence focuses on the psychosexual development of the individual. Firstly, adolescence is seen as a period when there is a marked vulnerability of the personality resulting from puberty. Secondly, it is thought that

there is an inadequacy of psychological defences to cope with inner conflicts and tension resulting in maladaptive behaviour, such as depression, non-conformity and mood fluctuations. Finally, emphasis is placed on the disengagement process from parents, which is perceived as a necessity if maturity is to be established.

The sociological perspective (Coleman, 1993) views the social setting as key in the adolescent transition period; focussing on roles, role conflict and the pressures of social expectations. From both perspectives adolescence is viewed as being dominated by stress and inner turmoil. Psychoanalysts see these as originating from inner emotional instability, whilst sociologists see it as a result of conflicting forces within society acting upon the individual.

Rutter et al. (1976) explored the idea of adolescence as a period of turmoil. The findings of the Isle of Wight study of 2303 14-15 year olds, showed that few parents experienced 'altercations' with their adolescent children, some emotional withdrawal was noted but few communication difficulties. The results showed that alienation from parents is not common in 14-year-olds. However, alienation was found to be more frequent in adolescents with psychiatric problems, although the direction of association is unclear: does alienation lead to disorder or does disorder lead to alienation? In a controlled study Rutter et al. (*op cit*) found that alienation was part of, not the cause, of psychiatric disorder. However, parental reports suggested that the child had in fact been alienated as a younger child and alienation increased during adolescence. These findings suggest that contrary to expectations adolescence is not a time of alienation from parents, but rather alienation and psychiatric disorder are correlated. This finding may have implications for those adolescents who are victims of bullying. As a consequence of being alienated they may develop psychological problems. They may also experience greater alienation from parents than non-victims.

With regards to inner turmoil Rutter et al. (*op cit*) found that nearly half of the sample reported feeling miserable or depressed, and this was equally common in both genders. He concludes that this affective disturbance could be described as "inner turmoil". Interestingly, many of the adolescents who appeared normal to parents and teachers were diagnosed as showing psychiatric disorder on the adolescent interview. This raises the question of whether the reported feelings indicated clinical depression or whether they represented inner turmoil, which is a part of adolescent development. The study revealed

that depression was much commoner in adolescence, than had been reported in early childhood, as was anxiety. Cases of school refusal also increased during adolescence, although often as part of a widespread psychiatric disorder. It would appear then that the diagnostic pattern begins to approximate the incidence of disorder amongst adults.

More recently, Hill (1993) found that only a few adolescents experienced any serious identity crisis. It was found that most had positive relationships with parents and did not reject parental values in favour of peers. In most situations it was found that peer group values reflected those of important adults rather than conflicted with them. Girls showed greater emotional autonomy and were more resistant to peer pressure to indulge in antisocial activities than boys. With regards to separating from the family and forming significant peer relationships, Baumrind (1987) cited in Hill, (1993) suggested that substance use was a strategy associated with the developmental task of partially separating from the family and acquiring acceptance within a peer group. This more recent research appears to echo the findings of Rutter et al's. (1976) earlier work, with regards to alienation and parents, in that, alienation from parents is not a common occurrence in adolescence and peer values often coincide with that of parents.

In conclusion, it would appear that parent-child alienation was not common amongst 14-year olds, unless the child already had a psychiatric disorder. Parents continued to have a significant influence on their children right through adolescence, although peer group influences increased during adolescence. "Inner turmoil", characterised by feelings of misery and depression, appeared to be common in 14 year olds, although they were often unnoticed by adults around them. Rutter et al. (1976) concluded that adolescent turmoil is a fact, and not fiction.

1.3.2 *Adolescence and Coping*

This section reviews the coping mechanisms employed by adolescents, such as parental support and the increasing influence of peers during adolescence. In addition the consequences for adolescents without a cohesive support mechanism are considered.

Adolescent coping appears to follow a normative pattern of moving away from the family into the peer group for support; however, Coleman (1993) purports that where parental attachment is strong parents remain a considerable source of support. It may be that the power of each source of support varies with age and with level of parental attachment. Kobak and Sceery (1988) cited in Hill, (1993) found that those with less securely attached parental relationships also experienced less supportive relationships with peers. If parents are perceived as significant coping resources this may account for Kobak and Sceery's finding that conflict with parents and peers is cited as one of the most common stressors. This finding has significant relevance for those adolescents who experience poor peer relationships. If peer support is perceived as 'normal' in the transition process from childhood to adulthood, how is this transition affected when adolescents have poor peer support. It might be expected that those adolescents without a cohesive support mechanism cope less well and subsequently develop mental health problems, as is the case with those adolescents who are victims of bullying (Parker and Asher, 1987).

Adams and Adams (1991) found that peer contact increases during adolescence, and is cited as a source of information, advice and sympathy. Talking with friends is cited as the preferential strategy for coping with many stressful life events such as parental divorce or relationship break-ups. Having a confidante is shown to have beneficial effects on mental health. Buhrmaster (1990) cited in Hill, (1993) found that 13-16 year olds with close and satisfying peer relationships were less anxious, less depressed and had higher self-esteem. Shulman (1993) also showed that the presence of peer support contributes to individual adaptive coping, although this differs for males and females. For males active coping is enhanced by positive parental attachment, attachment to a friend does not contribute to males' active coping. This may be explained by males' lack of willingness to acknowledge problems to peers and be associated with the need to present a positive image to peers. Conversely, for females both parents and friends were significant active coping mechanisms; this may reflect an increased willingness on the girls' part to confide and share problems with peers. If confiding in peers is associated with better mental health then the finding that boys do not confide in peers may have repercussions for their mental health.

In conclusion, it appears that having both parental and peer support is cited by adolescents as critical coping mechanisms; lack of either of these is associated with greater

psychological distress. However, there appears to be a gender difference for preference of support, that is, attachment to a friend does not contribute to males active coping, conversely for females both parents and friends provide important coping mechanisms. This finding may have implications for the consequences of bullying according to gender. Males may experience less psychological distress as a consequence of peer isolation.

1.3.3. *The Social Context of Adolescence*

A major concern for sociologists in this current era has been the ambiguous nature of adolescents' status within current society (Coleman, 1993). Status ambiguity is intensely frustrating for adolescents; not knowing whether they are going to be treated as an adult or as a child can be difficult to cope with. It also leads adults to be confused about adolescence, and therefore uncertain about rules and interactions. The uncertainty of status also places young people in positions of powerlessness. The law further reinforces this uncertainty and ambiguity, for example, at 16 you can marry, join a trade union, and live in a brothel, yet you cannot be tattooed, own a house, or vote. The Children Act (1989) affords rights and responsibilities to the young person, and yet the Criminal and Disorder Act (1998) sees their behaviour as the responsibility of their parents.

Furthermore, the working environment serves to make adolescence even more ambiguous and more difficult to assume an adult status. In earlier decades the leaving of school to go to work marked the end of adolescence; today the transition from school to work is vastly different. Many adolescents are unemployed or remain in further education, or start training schemes, which as Coleman states has had the effect of creating an 'occupational twilight zone'.

In conclusion, it would appear that adolescence is characterised by a period of uncertainty and ambiguity. Neither the legal nor parental systems appear to be clear about the role nor identity of young people, consequently there exists confusion about how to interact and assert rules with adolescents. If it is confusing for others around them, it would seem logical that adolescents themselves experience ambiguity about their status. Substance use

may provide one way of defining themselves and asserting their identity (Denscombe and Druquer, 1999).

1.4 *Bullying*

The following section will review definitions of bullying, prevalence, long-term effects of bullying and characteristics of bullies, victims and bully-victims.

1.4.1 *Definitions of Bullying*

There are a number of definitions of bullying in the literature, most of which agree bullying is intentional harmdoing, carried out repeatedly over time, and which occurs within an interpersonal relationship that has an imbalance of power between the bully and victim. Heinemann (1973) cited in Arora, (1996) was one of the first researchers to draw attention to bullying. His definition of bullying focused on group violence against a 'deviant' individual. Olweus (1978) cited in Arora, (1996) later used a wider definition, which at first only assumed that boys bullied. He introduced a psychological perspective to bullying; stressing a long term and systematic aspect to the actions described as bullying. However, Arora argued that a one off attack to an individual who is powerless may make that person frightened over time due to emotional trauma following the attack and also due to fear of renewed attacks.

A power dimension was later added to the definition of bullying and emphasised the interpersonal interaction which takes place (Bjorkvist, Ekman and Lagerspetz, 1982). Besag (1989) introduced a further dimension, which could be seen as the 'moral' definition of bullying, emphasising intentionality, gain and gratification relating to the immoral use of aggression. Smith and Sharp (1994) modified Olweus definition and gave the following definition of bullying for the Sheffield/DofE anti-bullying project:

> "We say a young person is being bullied, or picked on, when another child or young person, or a group of young people, say nasty or unpleasant things to him or her. It is also bullying when a young person is hit, kicked or threatened, locked inside a room, sent nasty notes, when no-one talks to them and things like that. These things can

> happen frequently and it is difficult for the young person being bullied to defend himself or herself. It is also bullying when a young person is teased repeatedly in a nasty way. But it is not bullying when two people of about the same strength have the odd fight or quarrel" (p.7).

It can be seen that this definition does not include the aspects of power, intentionality or motivation, which were included by some of the other researchers. Within this definition, bullying can be physical or verbal in nature, but can also take the forms of other psychologically damaging acts, such as social exclusion.

1.4.2 *The Prevalence of Bullying*

Research on bullying indicates that this is a very real and not uncommon experience for many school children. In the largest UK study to date Whitney and Smith (1993) found that 20% of junior/middle school pupils and 10% of secondary pupils reported being bullied 'sometimes' or more frequently during the school term. These figures remained constant when the more stringent criterion of 'once a week' was applied. Twelve per cent of junior/middle school pupils reported bullying other pupils 'sometimes', and 5% did so 'once a week or more'. A study by Mellor (1990) discovered similar findings, 9% of pupils acknowledged being the victim of bullying, while 6% admitted that they had bullied other pupils.

Ahmad & Smith (1989) cited in Whitney & Smith (1993) found higher incidence levels of bullying. Twenty per cent of middle school children and 18% of secondary school children reported being bullied 'sometimes', 'now and then' or 'more often'. Other studies suggest that figures of around 20% are not uncommon (Arora & Thompson, 1987). A survey carried out by Kidscape (1986) reported that 68% of a sample of 4,000 pupils experienced bullying. Smith (1991) concludes that it is likely that one in five pupils in England have experienced bullying, and one in ten have inflicted it upon others.

The lack of a consistent definition of bullying leads to authors developing their own views of bullying, these are subsequently used to collect data on the incidence of bullying. This

can lead to results that are difficult to interpret and renders comparison of results across studies difficult. This observation may account for the variation in findings of prevalence of bullying.

1.4.3 *Long Term Effects of Bullying*

The long-term effects of bullying for both victim and bully can be considerable. The following section will review the research findings of these effects. Victimisation at school may result in long-term social, emotional and psychological effects (Sharp, 1995). Parker and Asher (1987) reviewed a number of studies linking low peer acceptance or peer rejection to later personal adjustment problems such as depression, school drop-out and to criminality. Sharp found that pupils persistently bullied in secondary school are likely to experience physical illness, sleeplessness and difficulties concentrating on schoolwork. Bullied children are more at risk than non-bullied children for a variety of health symptoms (Craig, 1998; Rigby, 1998; Rigby, 1999), and have lower self-esteem (Boulton and Smith, 1994).

Retrospective studies of adults who had been bullied as children revealed that they experienced bouts of depression, low self-esteem and difficulties with trust and intimacy as adults. Hugh-Jones and Smith (1999) examined the long-term effects of victimisation at school and found that 46% of adults who had been victims as children reported some long-term effect such as low self-esteem and depression. These studies indicate that bullying poses a serious threat to psychological health not only in the short term but has far reaching effects into adulthood.

As young adults, former bullies have a four-fold increase for the risk of criminality (Olweus, 1994). Olweus found that approximately 60% of former bullies had at least one court conviction at age 24, and 35-40% of them had three or more court convictions. Farrington (1993) has reported evidence of former bullies engaging in violent behaviour more frequently than their non-bullying peers after leaving school. Similarly, Cairns and Cairns (1994) cited in Rigby and Cox (1996) reported that a high risk group of students at age 13 (identified as showing the most serious problems of aggression, including bullying)

were subsequently found to have experienced more arrests in adolescence for serious offences (i.e. breaking and entering, drug dealing, vandalism) than a non-risk control group. There is little evidence of bullies engaging in other forms of delinquent behaviour whilst still at school. The majority of these studies were longitudinal, and thus able to explore in depth the primary factors, such as bullying, leading to psychological distress, and in the case of bullies, delinquency. However, these studies did not account for other factors, such as family and social circumstances, which may have been equally influential in the development of psychological distress and delinquency.

1.4.4 *The Characteristics of Bullies*

Research has shown that bullies are often impulsive, like to dominate others, are generally more aggressive and have low levels of anxiety and insecurity (Olweus, 1994). In a review, Olweus (1994), cites several studies that have found that bullies tend to be below or of average popularity, but more popular than victims. In contrast to victims, bullies perceive themselves positively, do not suffer from low self-esteem and believe that they are popular. Boulton and Smith (1994) found that both bullies and victims were less likely to belong to the popular group, and more likely to belong to the rejected group than controls.

Bernstein and Watson (1997) described bullies as generally older male children. Girls also bully but generally use more indirect techniques such as ostracising and ridiculing victims. Bullies tend to have little empathy for peers, positively value violence, are impulsive and show a strong need to dominate others. Olweus (1978) also found that bullies seem to have little of the anxiety and insecurity that victims have. There remains controversy as to whether bullies have high (Olweus, 1994), or low self-esteem (Kaltiala-Heino, Rimpela, Rantanen and Rimpela, 2000). Aggressive children often have a hostile attribution bias and interpret ambiguous events as being intentionally harmful. They often feel as though they are victims and feel justified in retaliating. They show an aggressive, impulsive temperament and are at risk for other problem behaviours such as substance abuse and delinquency (Farrington, 1993).

Sutton (2001) recently explored the idea of bullies as 'thugs or thinkers'. He reviewed the literature and found that the prevailing view is that bullies are socially inadequate who resort to violence because they don't know how to interact properly, that is, that they are 'thugs'. The literature suggests that bullies do not process social information accurately, failing to understand the feelings of others. This view appears to arise from the social skills deficit model of aggression (Crick and Dodge, 1994).

However, Sutton (2001) considers that bullies may be socially competent, able to take into account the social context that they are in, in order to achieve individual goals, that is, they are 'thinkers'. Perhaps bullies view aggression as an effective social strategy because it is easy and it works resulting in often tangible rewards such as extra dinner money or reputation enhancement. Sutton and Keogh (2000) used theory of mind tests, showing children pictures of faces expressing different emotions, to explore whether bullies had more difficulty than non-bullies in reading and understanding other's emotions. They found that saying you bullied because you enjoyed it was correlated with social cognition and with emotion understanding. This suggests that children who bully may do so *because* they understand the emotional consequences of their acts. They also found that bullies scored higher than controls on Machiavellianism, suggesting that they are able to manipulate others for their own gain. Sutton (*op cit*) concludes that bullies may, in contrast to earlier literature, be high in empathy for their victims, since they are able to understand and calculate the effects their behaviour has on their victims. He suggests that effective anti-bullying strategies might be better to focus not on taking the perceived power away from the bully but rather encouraging them to think about other behaviours that may result in them maintaining the feelings that bullying gives them.

Regarding personality traits Slee and Rigby (1993) found the tendency to bully to be positively associated with Psychoticism, while the tendency to be victimised was negatively associated with Extraversion, and positively associated with Introversion and low Self-Esteem. Mynard and Joseph (1997) replicated these findings and also reported that children who were both bullies and victims were characterised by high levels of Neuroticism. Sutton and Keogh (2000) suggest that children may deliberately underachieve in class due to a desire for social success, which also appears to correlate with a lack of sympathy for victims. Bullying others and appearing not to try in class may be linked to an attempt to create a powerful reputation in childhood. They also found a

high correlation between Desire for Social Success and Machiavellianism, perhaps indicating that both constructs are linked to creating a strong social identity at the expense of others.

Whilst the picture of bullies as aggressive individuals who like to dominate others is clear, it remains unclear whether they are 'thugs', that is, socially inadequate, or 'thinkers', that is, socially skilled individuals able to manipulate others for their own gains. Recent evidence (Sutton and Keogh, 2000) suggests that bullies are in fact 'thinkers'.

1.4.5 *The Characteristics of Victims*

Victims are generally more anxious and insecure than other students. They tend to suffer from low self-esteem, feel like failures, are ashamed and generally feel isolated at school (Boulton and Smith, 1994). Bernstein and Watson (1997) explored the characteristics of victims and found that boys were more exposed to bullying than were girls, particularly during the middle school years, and that younger students were more likely to be victimised than were older students. They found that victims were more likely to come from families with lower socio-economic status. Victims tended to be clumsy with poor motor dexterity, be less attractive and have more odd mannerisms or physical disabilities, victims also tended to be smaller and weaker than their peers. Farrington (1993) found that victims have lower school grades than non-bullied children; this may be due to frequent absences from school, difficulty concentrating and generally poor school performance. Whilst research suggests that certain characteristics can be ascribed to victims it is unclear to what extent the characteristics of victims develop as a consequence of bullying, or whether children are bullied because of already present characteristics.

Bernstein and Watson (1997) found that victims also tended to be anxious and insecure and have lower self-esteem. They are also more withdrawn and socially isolated. The literature suggests that victims can be divided into passive and aggressive victims. Aggressive victims are likely to be labelled as bully-victims. This label refers to an individual who is both a bully and a victim. Aggressive victims tend to be hyperactive and hot tempered, whereas passive victims tend to be sensitive, cautious and unassertive. Both types of

victims appear less able to control their emotions and more likely to seek attention than other children. Aggressive victims appear to play a more active role in provoking fights and may become bullies themselves simultaneously with being a bully, becoming what the literature refers to as 'bully-victims' (Olweus, 1994).

1.4.6 *The Characteristics of Bully-Victims*

There is no clear definition of what a bully-victim is, but it appears to refer to an individual who is both a bully and a victim in different situations. This label was first ascribed relatively recently by Olweus (1994). Research has been conducted to explore the association between bully-victim problems and personality. Andreou (2000) investigated self-esteem, Machiavellianism and locus of control of children who are classified as bullies, victims or both bullies and victims. The results suggest that what differentiates bully-victims from bullies or victims is their low social acceptance and high level of Machiavellianism and negative self-esteem. From these findings Andreou makes the supposition that low social acceptance leads to reduced availability of friends and suggests that the friends that are available may form a powerful network. With regard to self-esteem and Machiavellianism, Andreou suggests that bully-victims choose to be bully-victims, a role that is consistent with their negative evaluation of themselves and their Machiavellian strategy for dealing with interpersonal situations.

In summary, it appears that bullying is a frequent occurrence for many young people resulting in negative psychological consequences, both short-term and long-term. Definitions of bullying have changed over time to include both genders and both physical and verbal assaults. The literature remains controversial regarding the characteristics of bullies, viewing them as either 'thinkers' or 'thugs'. Self-esteem is thought to be high, although this remains an area for debate. The picture of victims is characterised by high psychological distress, isolated from peers and under-performing in school. Finally, there is a third group of young people involved in bullying, that is, bully-victims, who appear to be aggressive victims, who in some situations are victims, whilst in other situations they are bullies. This group is characterised by low social acceptance, high Machaivellianism and low self-esteem.

1.5 *Substance Use*

The next section will review the literature regarding adolescent substance use, and the aetiological theories put forward to explain why adolescents use substances.

1.5.1 *Substance Use and Adolescents*

According to Gilvarry (2000), the use of substances by adolescents is typically thought to be associated with developmental changes. The young person begins to look outwards from the family, and peers take on a new and more significant role. Adolescence is a time of experimentation, exploration, curiosity, risk taking and identity searching. A World Health Organisation (WHO) survey (1993) of young people in the UK suggested that boredom, curiosity, and wanting to feel good are some of the reasons why adolescents may use substances. Within a milieu of social and peer influence, together with easy availability of substances, substance use becomes one aspect of the developmental process. However, for some substance use may take on greater significance, leading to impaired physical and psychological health (WHO,1993).

The literature suggests that those young people who maintain and escalate their drug use often have more problematic backgrounds, lack accessible internal and external resources and have poorly developed coping skills (Bailey, 1992). Particular sub-groups within the adolescent population appear to be more at risk, and have fewer protective influences. These include adolescents who are homeless, those who truant from school, have current mental health problems or those with learning difficulties. The importance of identifying both risk and protective factors when planning educational, assessment and treatment strategies was recently re-emphasised by the American Academy of Paediatrics (Heyman, 1998).

A great deal of research has been conducted in an attempt to clarify the determinants of substance use amongst adolescents. This has identified many factors associated with increased risk of substance use (Hawkins, Catalano and Miller, 1992). These include genetic factors, individual, family and social factors (Cloninger, Bohman, and Sigvardsson,

1981). Lynskey, Fergusson and Horwood (1998) concluded that adolescent substance use commonly arises from risk factors such as homelessness, peer and parental use, and psychological vulnerabilities that precede the onset of substance use. This finding challenges other current theories (Frances, 1997; Vaillant, 1996) that suggest that use of substances subsequently leads to poor psychological health.

Links between parental substance use and their offspring's drug use has been the subject of genetic studies (Schukit, 1988). Studies of twins and siblings born to drug-dependent parents show a genetic predisposition to drug and alcohol use, although it is not clear to what, if any, extent social or environmental factors were controlled for. However, there is other evidence to suggest that environmental factors (psychiatric and alcohol problems) predict substance use when genetic factors are controlled for, as in studies of adopted children (Koopsman & Boomsma, 1995).

Differential support mechanisms according to gender were explored by Lifrak, McKay, Rostain & O'Brien (1997) who examined the role of gender, social competency and substance use in 140 male and 131 female adolescents. In boys, parental and teacher support were associated with less substance use. In contrast, teacher and parental support had little effect on substance use in girls. Peer support was associated with substance use in girls, although the direction of association is not made clear, or how the quality of peer relations affects the use of substances.

However, other research suggests that peer rejection and affiliation with like-minded peers present individual risk factors. Hawkins et al. (1992) reported that affiliation with deviant and substance using peers is seen as a strong predictor of substance use. Similarly, Fergusson, Horwood, & Lynskey (1995), found that association with substance-using peers, at age 15 years, predicted substance use amongst boys. Few studies appear to have considered the relationship of peers and substance use amongst girls.

Social deprivation has been reported as being associated with drug use (Advisory Council for Misuse of Drugs (ACMD) 1998). However, the extent to which poverty and drug use seem to be associated is complex. Substance use appears to be related to the rate of neighbourhood crime, drug availability, tolerance and acceptance of drug use and

availability of community support structures (Gilvarry, 2000). The research evidence (Gilvarry, 2000) suggests that these factors are important in the uptake of substance use.

Family factors associated with increased risk of substance use include poor and inconsistent parenting, inconsistent discipline, lack of clarity regarding behavioural expectations, excessive punishment, family conflict and poor parent-child interactions (Chilcoat and Anthony, 1996). However, it is important to note that the literature pertaining to the link between family factors and substance use primarily relates to alcohol and tobacco use. Although it could be hypothesised that similar links may exist for other drugs, this is an area that requires further research.

In summary, it appears that one theory in itself is not explanatory of substance use, but rather substance use results from an amalgamation of factors such as family history, peer influence, genetic predisposition and social deprivation.

The identification of risk factors and their effect on the pattern of substance use amongst individuals has implications for the planning of effective prevention and intervention strategies for young people. However, ascertaining risk factors, although necessary, is not sufficient to enhance understanding of the reasons *why* adolescents use substances.

The following section will discuss the relationship between substance use and mental health in adolescence. This may provide some understanding of the reasons why adolescents use substances.

1.5.2 *Adolescent Substance Use and Mental Health*

Personality and substance use was initially linked with the notion of an 'addictive personality'. The origins of which appear to have come from psychoanalysis, which explored the intrapsychic forces of addicted individuals. The idea of an 'addictive personality' also arose from the disease concept of substance abuse, which sought to identify some inadequacy in the individual which would account for the disease. Recent

research has focused more on personality variables as correlated with substance use, rather than as a univariate explanation.

Studies by Jessor and Jessor (1977) found that adolescent 'pre-users' were distinguished by their independence, failure to value conventional institutions, critical view of society and tolerance for transgression, concluding that future drug users are independent, rebellious and do not value academic achievement. Personality variables have been shown to vary among substance users when compared with controls. Both alcoholics and other drug users have shown elevations on the Neurotic and Psychotic scales of the Eysenck Personality Inventories, and lower than controls on Extraversion (Eysenck and Eysenck, 1976, cited in Cox, 1979)

Hatzitaskos, Soldatos, Kokkevi, and Stefanis (1999), more recently investigated the prevalence of substance use disorder in young adult patients with borderline personality disorder (BPD) and anti-social personality disorder (APD) to ascertain the specific substances each of these groups choose to use. The study participants were 41 hospitalised patients with BPD and 44 hospitalised patients with APD. Diagnosis were made using DSM-III criteria. Abuse of one or more substances was reported by 76% of BPD patients and 95% of APD patients. Benzodiazepines, cannabis and opioids were abused more than twice as often by APD patients than BPD patients. APD patients were more likely to be multiusers. In APD patients number of substances used was positively related to state anxiety.

Other researchers have reported that anxiety; depression and low self-esteem predict future drug use (Pandina and Shuele, 1983). With regard to specific drugs; alcoholics, heroin addicts and multiple drug-users are characterised by anxiety and depression. Feelings of low self-esteem are common among substance users generally, but are especially prevalent among alcoholics. Users of amphetamines have been shown to have an external locus of control (Cox, 1979).

Adolescent substance users have been reported to commonly experience mood disorders, especially major depression (MD) (Bukstein, 1995). Rhode (1996) in a community survey of 458 adolescents found that 48% of adolescents with alcohol dependence had a history of MD, and in over half of these depression preceded the alcohol problem. Whilst gender

differences are not considered in the current study Bukstein (1995) noted that the rate of MD and substance use disorder (SUD) is higher in females than males Anxiety has also been shown to be highly associated with SUD. In a cross sectional study of 645 adolescents Hovens (1994) found that 30% of females have anxiety disorder and SUD, this compares with six per cent for males. However, in this particular study it was not clear whether anxiety preceded the substance use problem.

Labouvie (1986) conducted research investigating the role of alcohol and substance use in emotional self-regulation. Thirty six per cent of the sample of 617 adolescents reported using substances to enhance positive emotion and manage negative emotions. It was found that adolescents that reported use of substances to regulate positive and negative emotions used substances more heavily than did those who did not report to use substances as a means of emotional regulation.

Secondly, Labouvie explored the role of stress in relation to substance use. It was found that higher perceived levels of social stress (stress in relationships), and life stress (issues of meaninglessness and powerlessness), were associated with higher levels of substance use. The data in this study are correlational; thus causal inferences cannot be made. Further research needs to be conducted to explore whether relationships suffer as a result of substance use, or whether the experience of poor peer relations leads to stress and subsequent substance use. Here it is hypothesised that substance use is an attempt to manage the resultant negative emotions.

Interestingly, Labouvie (1986) found a connection between use of substances and the experience of positive emotions that is, adolescents reported use of substances to facilitate the experience of positive emotions towards themselves and others. This corresponds with the early psychoanalytic literature (Krystal and Raskin, 1970) that explored the use of heroin and cocaine as enabling the individual to experience positive emotions towards themselves and others.

Other researchers have evaluated the extent to which stress, depressive symptoms and substance use are associated. Unger, Kipke, Simon, Johnson, Montgomery, and Iverson, (1998) found that stressful life events were positively associated with depressive symptoms and substance use amongst homeless youth. Interestingly, it was found that females had a

higher incidence of depressive symptoms, but lower reported use of substances. If depression is purportedly correlated with substance use, as several researchers suggest (Labouvie, 1986; Bukstein, 1995) it might be predicted that females would use substances more than males; unless females express and manage their depressed feelings more adaptively than males, and therefore need substances less as a defence.

Perhaps Unger et al's. (1998) finding that social support attenuates the amount of substances used, can explain this apparent anomaly. Conceivably, females may have greater social support thus moderating the effects of depression, or possibly depressed females use social support as a coping mechanism where males may use substances. This is an area that requires further research, alongside clarifying the gender differences associated with coping, depression and substance use.

Hoffman, Cerbone and Su (2000) conducted a large-scale longitudinal study exploring the cumulative effect of stress on substance use in 651 adolescents aged 11-15 years. The results suggest that number of negative life events such as death, illness, or accident amongst family or friends, parental separation and changes in school, are associated with significant increases in drug use. These findings would suggest that developmental history is important when considering the reasons why adolescents may use substances. The evidence would suggest that the experience of stress precedes substance use, and thus substance use may be viewed as an attempt to cope with the negative emotions that stress imparts.

In summary, it would appear that high stress levels and accumulation of negative life events seems to be linked with increased substance use. There has been a move from the idea that substance use is due to personality factors to the notion that substance use is closely correlated with psychological variables. In addition adolescents appear to use substances not only to alleviate negative affect, but also to facilitate the experience of positive emotions. Whilst the literature suggests a co-existence of psychological disorder and substance use, which came first remains a matter for debate.

The following section will discuss the factors associated with substance use, such as peer rejection and self-identity, and the extent to which these theories may explain the occurrence of substance use amongst adolescents.

1.5.3 *Peer Rejection and Substance Use*

Limited research has been conducted to ascertain the links between peer rejection and substance use. Brook (1986) found that characteristics such as aggression, isolation and social inhibition, factors associated with peer rejection, were linked to substance use. Aggression towards peers, lower inhibitions and isolation were associated with heavier substance use. Kellam (1980) found that children who were shy at age six years later showed a pattern of low drug use, whilst those who were aggressive, with or without shyness had a much higher level of substance use in adolescence.

Kaltiala-Heino, Rimpela, Rantanen and Rimpela (2000) conducted a study with 26430 14-16 year old school students in Finland investigating peer rejection and substance use. They found that bullies and bully-victims showed frequent excessive drinking and use of other substances, this adheres to the stereotype of bullies externalising problems and engaging in dysregulated behaviours such as substance use. Victims, conversely, engaged in less frequent excessive drinking than those not involved in bullying. However, due to the cross-sectional nature of the study, data are correlational and causal inferences cannot be drawn.

In summary, it appears that bullies and bully-victims showed frequent excessive drinking and use of other substances, whilst victims engaged in less frequent excessive drinking than those not involved in bullying. In addition, aggression towards peers, lower inhibitions and isolation were associated with heavier substance use.

1.5.4 *Self-Identity and Substance Use*

In this current study substance use refers to the use of illicit substances and alcohol. However, the literature on smoking and adolescents may offer some insights into illicit substance use by adolescents.

Denscombe and Drucquer (1999) propose that 'uncertain identities' are a major contributory factor to the uptake of smoking by young people. They adopt a voluntaristic perspective, which is in direct contrast to the view of young people as victims, led into smoking by their own psychological inadequacy, peer pressure or the commercial interests

of the smoking industry. Data are based on research with 15-16-year olds using a questionnaire survey, focus group discussions and in-depth interviews. Denscombe and Drucquer (*op cit*) explored the role of smoking as something that has personal benefits and as something that young people willingly take up in the full knowledge of the health risks they are taking.

Denscombe and Drucquer (1999) view smoking within the context of young people living within the current era, within which they find themselves without the certainties of the past - tradition, custom, ascribed identity; giving way to greater uncertainty, scepticism and irreverence. Importantly, in this current era self-identity is uncertain. The self needs to be constructed and maintained in direct relation to its social environment. Giddens (1991) writes that this uncertainty may be 'existentially troubling for ordinary individuals'. If Giddens is correct, surely young people will look for a solution to this 'problem', and substance use may be one way of solving this, providing a new and relatively easy way of constructing their identity and a way of coping with uncertainty. At the age of 15-16 this might be particularly important, where the identity is precarious and fragmented, substance use may have good pay-off to the extent that it serves a purpose - to help construct a self-identity.

Denscombe and Druquer (1999) found that young people identified smoking as being related to the image of being grown up and mature. Greater emphasis was placed upon the value of smoking for 'looking cool' and 'being hard', particularly for girls, within a context of competing with boys to be 'hard' or as one participant stated [girls] 'they try to be more like boys'. From a feminist perspective this may fulfil a modern attempt by girls to be in control and at least equal to boys. Smoking seemed to indicate, especially for girls, an attempt to be in control of themselves and their lives.

Choice appeared to play a significant role in taking up smoking, several participants stated that they felt smoking was something they actively chose to do, involving a calculated risk, and was not influenced by others, any more than it dictated who they hung around with, that is, other smokers. In terms of risk-taking, some found this acceptable, whilst others did not. For those who did, they stressed that it was just one of many risks they took, and within a context of the world as inherently risky. In this context of uncertainty, smoking

was acknowledged as risky, but a risk worth taking and no more risky than a lot of other risks faced in life.

Adolescence is a time of contradictions and inconsistencies. At school viewed as children, at home as dependants and at other times as adults, and in the high street as high profile consumers, yet not old enough to be served alcohol in pubs. Against this background of uncertainty, smoking was identified as having a special role to play; being a 'smoker' said something about your 'self'. Although the young people interviewed stated definitely that smoking was just one factor that symbolised something about the person you are, and was not the defining characteristic of someone. Smokers felt that smoking however made them "just a little bit special", they could live with the risks and dangers where others could not. By taking the risk and surviving it, there is a self-affirmation; it is proof that the self has special qualities.

The social/historical context must be considered with reference to uncertain identities, especially for different genders. Factors linked with the social identity of young women might go some way to explaining why more young women than men smoke. The issues appear to be related to stress and the need to feel in control. For young men current social circumstances undermine their sense of self and pose threats to the security of their identity; this group has suffered at the hands of economic restructuring, with recession, unemployment and job insecurity. Giddens (1991) states that this current climate heightens the significance of uncertain identities in the lives of young people; smoking is thus viewed as being a positive influence in the construction of a self-identity. Although Denscombe and Drucquer's (1999) research only focused on young people and smoking, it may be expected that similar findings would exist for other substances, since it is primarily concerned with a search for an identity within modern society, and it may be assumed that other substances serve similar purposes.

The literature on adolescents and consumption, though not specifically about substance use, may offer some insights into why adolescents use substances. Miles, Cliff and Burr (1998) suggest that consumption allows young people to feel as though they fit in whilst simultaneously giving them some sense of individuality. As Denscombe and Drucquer (1999) state, this provides them with a sense of stability within an unstable society. Miles et al's. study surveyed young people and their consumption of material goods, such as

clothing. However, there may be parallels with the consumption of illicit substances and the meaning they hold for young people. For example, Miles et al. (*op cit*) suggest that how young people spend their leisure time and money is central to their life experience and how they shape their sense of self. Factors influencing purchases include expressing individuality, opinion of friends, and 'street cred'.

Perhaps illicit substances may be viewed as just another consumer good, easily influenced by the same factors that influence any other purchase. Just as goods such as clothes say something about the individual perhaps so too do illicit substances. The choice of which illicit substance may be as susceptible to market forces as which item of clothing permits the greatest 'street cred' *etc*. Equally, the young people interviewed expressed the opinion that they did not necessarily buy to fit in with friends but in order to express their individuality and difference. However, it would also appear that items express group membership 'like a symbol of the gang'. Again, it is possible to see that use of a particular substance may fulfil this same function indicating group membership by use of a particular substance. One participant stated that his purchase of an item of clothing helped him to rise above his own insufficiencies, personal problems and everyday mundanities, it helped him to project an image to the outside world. Again, it may be argued that illicit substances serve a similar function in influencing how others perceive the individual.

Miles et al. (1998) suggests that consumption provides a framework by which young people construct who it is they are amongst their peers and this has an influence on self-conception. Material things play a part for the relationships and identities that can be established through the meanings endowed in them, they somehow communicate something to the world about themselves, facilitating social participation and thereby constructing a recognisable identity. Perhaps just like material goods, which have a short shelf life, some drugs are more 'fashionable' than others and impart meaning and say something about the individual and their self to others. Miles et al. (*op cit*) highlight that youth consumption should not be considered in isolation but rather should be conceptualised in the context of on-going social and structural change. The relationship between youth consumption and identity is a product of complex social and cultural relationships, just as illicit substance use may be viewed in the same way, influenced by availability, health promotion, individual and group preference and the current drug 'fashions'.

In summary, it would appear that substance use might provide adolescents with one way of constructing their identity and coping with the uncertainty that is a part of modern society. Substance use might facilitate the image of 'looking cool' and 'being hard', saying something about themselves. At the same time as providing a means of stating something about being an individual, substance use also provides a means of 'fitting in' with a group.

The following section will continue to discuss theories of substance use in adolescence, in particular peer pressure and the self-medication hypothesis.

1.5.5 *Peer Pressure and Substance Use*

Peer pressure is widely thought of as a crucial predisposing factor for young people's involvement with substances. Indeed, amongst healthcare professionals and policy makers the view is one of young people as victims of peer pressure to conform to their group. In recent years health education programmes have reflected this belief by focussing on ways of enabling young people to say 'No' and resist peer group pressure.

However, research by Denscombe and Druquer (1999) with 15-to 16-year olds has raised serious doubts about the explanatory value of peer group pressure, in terms of the current experiences of young people. Three reasons existed for the rejection of the idea of peer pressure as a major contributory factor in the use of substances by young people. The first was the idea that peer pressure was at odds with the idea of individual autonomy and self-determination, which was valued highly. Second, the idea of peer pressure wrongly portrayed young people as 'victims', thus underplaying their active and conscious collaboration in joining in with the group. Thirdly, peer pressure fails to take into account the flexibility and multiplicity of peer groups. The findings suggest that the notion of peer group pressure needs to be reconsidered in light of the increasing emphasis on individualism and self-identity associated with modern society.

The notion that peer group pressure is a major contributory factor influencing young people to use substances has become almost perceived as common sense. It is assumed that pressures exist and are brought to bear on the individual to conform to the practices of

group members. Support for the peer group pressure thesis draws on evidence from cross sectional studies, which show a correlation between the smoking behaviours of individuals and their friends (Charlton and Blair, 1989). Longitudinal studies show that friend's smoking is an antecedent to the uptake of the individuals smoking (Ary and Biglan, 1988); and studies of initial smoking situations show the uptake of smoking is linked to approval or coercion by friends (Friedman, Liechenstein and Biglan, 1985).

Santor, Messervey and Kusumakar (2000) used a questionnaire based study to explore the relationship of peer pressure, peer conformity, popularity and risk behaviours in adolescent boys aged 11-13 years. Santor et al. (*op cit*) used a definition of peer pressure as 'a subjective experience of feeling pressured, urged or dared by others to do certain things' (p.166). Peer conformity was defined as 'whether or not individuals adopt a certain course of action sanctioned by their peer group' (p.167). It was found that peer pressure and peer conformity were strong predictors of risk behaviours, including substance use. Peer conformity was a better predictive measure of risk behaviour than the peer pressure measures. Findings suggest that peer pressure and peer conformity are potentially greater risk factors than a need to be popular. The results suggested that as peer pressure and popularity increased, peer conformity decreased. Several positive correlations were found between peer pressure and beer consumption and peer pressure and other drugs used. Firstly, these findings are correlational and thus causal inferences cannot be stated. Causal effects of peer pressure can only be ascertained prospectively. Secondly, the validity of these conclusions need to be carefully considered since the data were obtained through self-report. However, some evidence suggests that self-report may be equally, if not more, valid than objective measures (Denscombe and Aubrook, 1992).

The evidence from many studies is used to support a contagion model of smoking, in which smoking is seen as a kind of behavioural disease, which spreads through peer pressure. The problem with the contagion model is that it fails to consider the dynamics of group membership. It assumes that young people fall into a peer group from whom they cannot escape and whose pressures to conformity are unavoidable. Whilst there is some evidence of an association between the smoking behaviour of an individual and his/her peers, it is suggested that this is due more to selection than peer pressure, that is, young people were choosing peers of a homogeneous nature (Engels, Knibbe, Drop and de Haan,

1997). It is hypothesised that young people can join and leave groups with some degree of flexibility, they are not forced to belong to any one group.

Eiser, Morgan, Gammage, Brooks and Kirby (1991) found that smoking was just one of many attributes shared by groups of friends, thus it would appear that the issue of whether someone smoked, or possibly used substances, is less significant than health promotion professionals would assume.

Finally, Denscombe and Druquer (1999) suggest that peers may not be as influential as health professionals think. This idea has implications for heath prevention and promotion strategies which currently focus on peer pressure and a 'Just Say No' to drugs approach. There is evidence that young people themselves, although aware of the idea of peer pressure, are more influenced by the idea of autonomy and choice than they are perhaps given credit for (Coggans and Mckellar, 1994). However, Friedman et al. found that three types of pressure were cited with some frequency: modelling, teasing and appraisal of the situation, (e.g. "I need to do this to be accepted by my friends). This may be influential when considering the nature of the relationship of bullying to substance use. Victims of bullying experience varying degrees of pressure and may be more susceptible to teasing and a desire to fit in with a particular group. They may also have a more limited choice of peer group and thus accept norms of behaviour that are not necessarily congruent with their own ideas in order to be accepted. Unlike the young people in Denscombe and Druquer's (*op cit*) study, victims of bullying may have fewer options to select from when it comes to choosing peer groups and rejecting one group's ideas for another's.

In summary, it would appear that smokers have more friends who smoke, but it is questionable as to whether there is a causal link. It appears that smokers may choose friends who smoke, but they also share similar beliefs, attitudes, values and activities, which may or may not include smoking. Subdivisions of larger peer groups can be made based on a variety of variables. Eiser et al. (1991) suggests that individuals may actively seek social influence so as to confirm their own identity and their interpretation of reality. However, the individual is emphasised not as a passive victim, but as a young person choosing to belong to a group, and therefore choosing the influences they experience. It would appear that there is a need to address the role of the individual in their own

development, with a particular need to assert that role of choice and motivation in relation to substance use.

In conclusion, it seems that despite current drug prevention strategies focusing on resisting peer pressure, peer pressure is less predictive of substance use than peer conformity, which is associated with increased substance use. This implies a certain degree of choice being operated by adolescents, that is, young people are choosing to use substances in order to 'fit in' with a peer group, rather than using substances as a result of pressure to do so.

The following section will review the literature on the self-medication hypothesis of substance use, considering the contributing and necessary conditions and the cause-consequence controversy.

1.5.6 *The Self-Medication Hypothesis*

Hippocrates was among the first to promote the self-medication hypothesis (SMH) when he said "Wine drunk with an equal quantity of water puts away terror and anxiety". The SMH (Khantzian, 1985) firstly suggests that 'addicts' use substances in an attempt to medicate themselves for a variety of psychological and psychiatric disorders and secondly that addicts select a specific drug, known as the 'drug of choice', which helps them to cope with specific painful states, at least in the short-term. The SMH does not attempt to negate the effect of socio-cultural or biogenetic factors in the aetiology of substance abuse, but rather adds a complementary perspective. Although the SMH has acquired wide recognition and support, perhaps because it makes sense intuitively, it has also attracted criticism and raised additional questions. This section is intended to review the current literature and scientific evidence associated with the SMH, alongside considering some of the criticisms and more recent applications of this hypothesis.

Khantzian's (1985) self-medication hypothesis is of significance since the literature suggests that substance using adolescents are not uncommonly depressed, anxious and stressed (Aseltine and Gore, 2000; Hoffman, Cerbone and Su, 2000). It is proposed that the

SMH might provide one way of understanding some of the powerful emotional factors that adolescent's experience and which may influence a young person's use of substances.

The SMH has its roots in the early psychoanalytic literature. Psychoanalysts, Gerard and Kornetsky (1954) emphasised that individuals use drugs to cope with overwhelming anxiety, but they failed to consider that the appeal of substances might be based on a specific action of the drug of choice. Weider and Kaplan (1969) subsequently began to explore how the psychopharmacological effects of drugs interacted with different ego states and disturbances in psychological structures to make particular substances selectively attractive.

Milkman and Frosch (1973) extending Weider and Kaplan's finding that individuals have a 'drug of choice', tested the hypothesis that self-selection of specific drugs is related to preferred defensive style. Using qualitative interview data they compared amphetamine and heroin addicts, in both their 'intoxicated condition' and 'drug-free state'. They found that heroin addicts preferred the calming and dampening effects of opiates in an attempt to reduce anxiety and reinforce a natural tendency towards withdrawal and isolation. The amphetamine user, in contrast, appeared to have an inflated sense of self-worth and a defensive style involving active confrontation with their environment.

Wurmser (1974), commenting on Milkman and Frosch's (1973) findings, believed that heroin addicts used opiates adaptively to cope with feelings of rage, hurt, shame and loneliness. That is, substances are selected for their "progressive effects" whereby regressed states may be reversed. This is in line with Khantzian's (1985) view that opiates have a direct 'anti-aggression' action, which counteracts the feelings of rage and aggression that the opiate addict experiences in their drug-free state.

Krystal and Raskin (1970) addressed addicts' difficulties in tolerating painful mood states and relationship problems. Based on the earlier psychoanalytic literature they proposed that addicts' difficulty expressing feelings; tendency to somatize depression and anxiety; and deal with positive and negative feelings that they have about themselves and others all predispose them to substance use. They theorised that use of substances permit addicts to defend against intolerable feelings and facilitates the experience of positive feelings, such

as fusion with loved objects, which are normally prevented by the rigid defences against aggression.

This concurs with Khantzian's view that heroin addicts use substances to defend against their feelings of aggression and to block out other painful emotions. However, Krystal and Raskin (*op cit*) also suggested that the use of substances enables addicts to experience positive feelings, towards themselves and others, that in a drug-free state would not be possible.

There is a difference in opinion as to the purpose of opiate use, that is, whether opiates are used to reinforce a natural tendency towards withdrawal (Milkman, and Frosch, 1973); or because opiates have an anti-aggression action, which counteracts the feelings of rage and aggression that opiate addicts feels in their drug-free state (Wurmser, 1974). However, the observations made by both Milkman and Frosch (1973) and Wurmser (1974) were based on a small clinical sample for whom no control group existed. Therefore, it is difficult to establish the reliability and validity of such findings.

A criticism of Khantzian's theory is that it is based primarily on limited clinical work with substance users, qualitative interview data, and not large scale empirical data using measures which have proven reliability and validity (Frances, 1997). However Khantzian (1997) suggests that clinical interviews 'yield rich and ample clinical data' and provide 'better access to the patient's inner life' p. 234.

Khantzian also fails to address the issue of multiple substance use, that is, when the individual fails to demonstrate a 'drug of choice' but rather uses many substances, including both stimulants and depressants. It may be hypothesised that multiple substance use arises from factors such as availability, cost, and culture. However, if given a choice the user may state a preferential drug. This is an area requiring further research and consideration.

1.5.6.1 *Contributing and necessary conditions.*

A criticism or question raised by the SMH is that many individuals experience emotional distress, but do not use drugs to attenuate their negative affect (Frances, 1997). However, Khantzian (1997) states that 'contributing and necessary' conditions need to be present in order for individuals to become substance users. Khantzian (1997) proposes that substance users self-medicate not only because they cannot tolerate or express their feelings, but also because they cannot regulate their self-esteem, relationships or self-care.

Shedler and Block (1990) provide empirical and longitudinal evidence to support this hypothesis. They conducted a longitudinal study, using a clinical sample of 101 18-year olds, investigating psychological characteristics and drug use. It was found that frequent drug users had poor close relationships, with both family members and peers, were not socially at ease, and experienced fluctuating moods, including depression and anxiety.

Khantzian (1997) proposes that difficulty regulating painful emotions is a necessary contributory factor in substance use, but not all people who experience self-regulation problems will become addicts. He suggests that self-esteem, relationship factors, and exposure to drugs mediates this process. He also proposes that substance users and non-users think and feel differently in dangerous situations, and that substance users have an impaired capacity for self-care, take more risks in general, and pay less attention to the consequences of their behaviour.

More recent research has found that involvement in substance use also predicted greater risk taking in terms of sexual activity, that is, they were more likely to engage in unsafe sexual practices (Santor, Messervey and Kusumakar, 2000). Khantzian proposes that it is this impaired capacity for self-care that combines with emotional deficits and availability of substances to make substance use more likely. It is theorised that this difference explains why many individuals experience emotional pain but do not use substances. It should be highlighted that Khantzian is proposing that the SMH is only one perspective in understanding why people use substances. He makes it clear that the SMH is complementary to socio-cultural and biogenetic theories and that the path to substance use is a complex one, unlikely to be explicable from any single perspective.

Evidence suggests that drug use is a symptom of personal and social maladjustment and that the meaning of the person's drug use can only be understood in the context of an individual's personality structure and developmental history.

1.5.6.2 *The cause-consequence controversy.*

A further criticism of the SMH is that substances themselves bring about pain, anxiety and depression in those with substance use problems (Frances, 1997). From the mid 1970's to the present, numerous reports have documented the disproportionately high incidence of psychopathology amongst substance users (Bukstein, 1995; Gilvarry, 2000). Studies of patients addicted to opiates reveal that one half to one third of participants reach the criteria for major depression, and a significant number of stimulant users have affective disorders, including bipolar disorder (Rounsaville, Weissman, Crits-Cristoph, Wilber and Kleber, 1982).

Within the numerous studies that report co-occurrence of psychiatric disorders and substance use there exists great controversy whether substance use is the cause or consequence of psychopathology (Bukstein, Brent, and Kaminer, 1989; Boyle and Offord, 1991). Understanding this relationship may clarify whether substance users are self-medicating pre-existing psychological problems.

Critics of the SMH suggest that since there appears to be no significant disparity between users of specific subgroups of substances on the incidence of DSM Axis I diagnoses (DSM IV, 1994) this argues against the specificity of drug of choice that the SMH proposes (Frances, 1995; Vaillant, 1996). However, Khantzian argues that the actions of drugs vary greatly amongst individuals, and may vary according to subjective psychological states, and the situation in which the drug is used. Khantzian highlights that the SMH proposes that it is not the psychiatric diagnoses that the individual is medicating, but the subjective symptoms that may be associated with the disorder. For example, it may be any one of the following symptoms, lack of motivation, sadness, agitation, anger, all associated with depression, that the individual attempts to self-medicate.

Several researchers (Schuckit, 1988; Vaillant, 1996) have argued that substance use is the precursor to psychiatric disorders. Vaillant stated that "alcohol dependence plays a greater part in the genesis of psychopathology than does psychopathology in the genesis of alcohol dependence" (p. 248). He has repeatedly stated that "genes and culture" play a far greater role than "personality or an unhappy childhood" in the aetiology of substance abuse.

Schuckit (1988) found that family history and level of reactivity to alcohol best predicted alcohol dependence amongst 453 sons of alcoholics. Schuckit stresses that anxiety and depression are induced by alcohol dependence, and do not precede it. These findings would appear to contradict the SMH. However, Schuckit failed to measure for pre-existing or resistant depressive or anxiety symptoms. In addition, his sample was taken from a group of "primary alcoholics" so by definition anxiety and depression would be minimal.

Furthermore, Zucker and Gomberg (1986) have critiqued this study and suggested that personality and environmental factors are not sufficiently controlled for using the selected measures. Khantzian (1996) also argues that they have not measured self-esteem and personal relationships, or taken into account subjective states of emotional distress. Interestingly, Weiss, Griffin, and Mirin (1992) found that 63% of 494 participants stated that they used substances for depressive symptoms, yet only 10% met the criteria for major depression. This would suggest that individuals self-medicate depressive symptoms, despite not reaching the diagnostic criteria for depression. This supports Khantzian's hypothesis that subjective experiences of emotional distress partially account for the use of substances.

In summary, the SMH is proposing that 'addicts' use substances to medicate psychological distress, and in addition that they select a 'drug of choice' to medicate specific negative emotions and facilitate the experience of positive emotions. There is controversy as to whether opiate addicts use opiates because they are congruent with their natural withdrawn state, or to suppress feelings of rage and aggression that they feel in their drug-free state.

Critics of the SMH argue that the data is primarily qualitative and not based on large-scale empirical studies. It is also suggested that many individuals experience distress and do not use substances. In response Khantzian argues that there needs to be 'contributing and

necessary' conditions, such as inability to self-regulate emotions and having poor close relationships. A further criticism surrounds the 'cause-consequence' controversy, which highlights the lack of clarity regarding whether substance use predates psychological distress or is resultant. In conclusion, the SMH provides only one perspective in understanding substance use. The path to substance use is complex and unlikely to be explained from any one perspective.

1.6 *Substance Use and Bullying*

The following final section will review the literature that links substance use and bullying. Little has been written about the link between bullying and substance use. The current literature more frequently considers the link between childhood bullying and delinquency in adult life. Farrington (1993) found that children involved in bullying are significantly more likely to gain a criminal record for delinquency (breaking and entering, criminal damage and substance use) than are controls. Olweus (1994) also found that former bullies have a four-fold increase for the risk of criminality in adult-life. Kaltiala et al. (2000) more recently explored the link between bullying, substance use and mental disorders in a study of 26430 Finnish students aged 14-16 years. It was found that frequent excessive drinking and use of other substances were most common amongst bullies and thereafter among bully-victims. Anxiety, depression and psychosomatic symptoms were most common amongst bully-victims and equally common amongst bullies and victims. Kaltiala et al. (*op cit*) comment that mental disorders in children are expressed as either internalising or externalising emotional difficulties. They propose that the typical victim would correspond to an internalising person, presenting with, for example, depression, anxiety and low self-esteem. The typical bully would fit the externalising category and would be expected to present with substance use and behavioural problems. Bully-victims might be expected to exhibit with more mental disorders than bullies or victims.

Baldry and Farrington (2000) explored the personal characteristics and parental styles of bullies and delinquents. They found that bullying and delinquency (including substance use) was more common amongst boys than girls. Bullying did not vary significantly with age, but delinquency increased with age. They suggested that bullying might be an early stage on a developmental sequence leading to delinquency. The literature also suggests that bullies and delinquents differ in personality style; delinquents, unlike bullies tend to have low self-esteem (Boulton and Smith, 1994; Farrington, 1998). They also differed on parental style; bullies had authoritarian parents and disagreed with their parents, delinquents had conflictual and low supportive parents. This suggested that bullying and delinquency are not merely behavioural manifestations of the same underlying construct.

1.7 *Summary and Conclusions*

In summary of this first chapter, adolescence as a period of turmoil was raised and definitions of adolescence according to different theorists were considered. The incidence and prevalence of both bullying and substance use revealed that both are common occurrences amongst adolescents. The long-term effects of bullying were considered, revealing considerable negative consequences. Characteristics of bullies, victims and bully-victims were reviewed. Finally, different theories of the aetiology of substance use in adolescence were discussed; it would appear that adolescent substance use cannot be explained from any one perspective, but rather results from a complex set of variables such as peer pressure and conformity, self-medication, self-identity, family factors and social influences.

In conclusion, it might be hypothesised that bullying represents a stressful life event, which for some young people may take place over several years. The resultant stress, pain and negative emotional affect may subsequently lead to substance use as a means of coping. In addition, it might be hypothesised that bullies are also at risk of substance use since they externalise difficulties. Consideration of this important area may highlight sub-groups of young people that are at risk of using substances. In this case developing understanding of the reasons why young people use substances could lead directly to changes in the development of prevention strategies and psychological treatment.

1.8 *Research Questions and Hypotheses*

Based on the above overview of the literature, a series of research questions and hypotheses were generated for the present study. The research questions were as follows.

1.8.1 *Research Questions*

1.8.1.1 Do victims of bullying, including bully-victims, experience greater psychological distress than bullies or controls?

1.8.1.2 Do those adolescents with high levels of psychological distress, that is, high levels of depression, anxiety and low self-esteem, use substances more often than those adolescents with low levels of psychological distress to self-medicate their distress? In addition, is victim hood, including bully-victim hood associated with substance use?

1.8.1.3 Is bullying and substance use part of the same underlying theoretical construct (e.g. an anti-social personality)? Is being a bully associated with use of substances?

1.8.1.4 Do patterns of substance use vary according to bullying status; that is, do bullies, victims and bully-victims use different substances for different reasons and in different ways?

1.8.2 *Research Hypotheses*

1.8.2.1 As has been discussed in the introduction there are many negative psychological factors associated with bullying (Rigby, 1999). The following hypothesis predicts:

- Depression will be significantly higher amongst victims of bullying and bully-victims, compared with bullies and controls.

- Anxiety will be significantly higher amongst victims of bullying and bully-victims, compared with bullies and controls.

- Low self-esteem will be more evident amongst victims of bullying and bully-victims, compared with bullies and controls.

1.8.2.2 This hypothesis is concerned with the relevance of the self-medication hypothesis (Khantzian, 1985). The specific hypothesis proposed that:

1.8.2.2.1 Those adolescents with high psychological distress, as defined by low self-esteem, high anxiety or high depression, will use substances more often than those adolescents with high self-esteem, low anxiety or low depression.

1.8.2.2.2 There will be a positive association between degree of victim hood and frequency of substance use. That is, as victim hood increases so too will frequency of substance use.

1.8.2.2.3 There will be a positive association between degree of bully-victim hood and frequency of substance use. That is, as bully-victim hood increases so too will frequency of substance use

1.8.2.3 This hypothesis concerned the personality correlates of both bullying and substance use.

It was hypothesised that an increase in frequency of being a bully would be associated with increased frequency of substance use. That is, as the degree of bullying increases so too will the frequency of substance use.

1.8.2.4 This hypothesis concerned the pattern of substance use amongst all groups.

1.8.2.4.1 Victims will be likely to use depressants more than bullies, bully-victims or controls.

1.8.2.4.2 Victims will be more likely than bullies, bully-victims or controls to use substances on their own.

1.8.2.4.3 Victims will be more likely than bullies, bully-victims or controls to use substances to suppress negative emotion.

1.8.2.4.4 Bullies will be likely to use stimulants more than victims, bully-victims or controls.

1.8.2.4.5 Bullies will be more likely than victims, bully-victims or controls to use substances in peer groups.

1.8.2.4.6 Bullies will be more likely than victims, bully-victims or controls to use substances to 'fit in with friends'.

1.8.2.4.7 There will be no significant difference between bully-victims and victims, bullies or controls on frequency of substance use.

1.8.2.4.8 There will be no significant difference between bully-victims and victims, bullies or controls on the variable 'whom substances are taken with'

Chapter Two: Method

2.1 *Design*

A between groups correlational design was used with four groups of young people, aged 13-16 years, who fell into one of the following categories as defined by Olweus (1996); those who are bullies, categorised by a response of one to four on the question 'How often have you been bullied at school in the past couple of months'. Those who are victims, defined by a response of one to four on the question 'How often have you taken part in bullying another student (s) at school in the past couple of months. Those who are both victims and bullies and thus labelled bully-victims, that is they have a score of one to four on both the above questions; and finally, those who are not involved, referred to as 'controls'. These groups were compared in terms of level of substance use and psychological well being. Levels of depression, measured by the Birlesen Depression Scale (1981), anxiety measured by the Spence Children's Anxiety Scale (1994) and self-esteem measured by the Rosenberg Self Esteem Scale (1965) were explored amongst these four groups. In addition, the association between these psychological factors and substance use were examined amongst this group of young people. The cross-sectional nature of the study meant that issues of causality were not addressed and associations were carefully interpreted.

2.2 *Participants*

Three schools were selected, all were urban comprehensives, with populations ranging from 800 to 1600 pupils. The process of selecting the schools will be discussed in a later section on recruitment. In all schools there were more boys than girls, one school was boys only. A review of the Ofsted Report, 2002, suggested that the proportion of students eligible for free meals was above the national average in two schools, and the proportion of students that spoke English as an additional language was very much higher in all three schools than in most schools. In addition the number of students identified as having special educational needs was well above the national average in all three schools. All schools had an anti-bullying policy, which is a legal requirement, and all schools stated that they would not tolerate the use of substances on the school premises.

The total sample comprised 263 participants aged 13-16 years old with a mean age of 14.33 (SD =.66) years drawn from school year groups 9-11. The sample size was determined by Cohen's (1988) power analysis, which suggested a minimum sample size of 222.

Three parents declined consent for their child to participate in the study and one student himself declined to participate in the study. Two questionnaires were spoiled and only partially completed. Thus out of a possible 269 participants 263 (97.8%) finally completed the questionnaire. The sociodemographics of the group are outlined in table 1.

Table 1. Basic Demographic Information for the Participants

Demographic	**Sub-Category**	**Frequency**
Gender	Male	187 (71.5%)
	Female	75 (28.5%)
[1]Ability Band	Top	147 (55.9%)
	Middle	46 (17.5%)
	Lower	70 (26.6%)
Year Group	9	25 (9.5%)
	10	188 (71.5%)
	11	50 (19%)
Age	13	17 (6.5%)
	14	152 (57.8%)
	15	83 (31.5%)
	16	11 (4.2%)

2.3 *Measures*

Four standardised and validated questionnaires were used along with one substance use questionnaire designed by the researcher. In view of the fact that the sample were adolescent it was important that the questionnaires were presented in a user-friendly way to facilitate compliance with completion. The questionnaires were presented in a colourful

[1] Ability band is the educational term used to denote academic streaming of students.

booklet format with graphics (see Appendix 1). The contemporary style of the booklet may explain the high return rate and high rate of completion by the participants. Standardised instructions, including the assurance of confidentiality and anonymity were given verbally. The booklet contained five self-report questionnaires; the revised Olweus Bully-victimQuestionnaire (ROBVQ) (1996), the Rosenberg Self-Esteem Scale (RSE) (1965), the Birlesen Depression Scale (Birlesen, 1981), the Spence Children's Anxiety Scale (SCAS) (1994) and a measure of substance use. Child development literature (Denscombe and Aubrook, 1992) suggests that children are able to complete self-reports since the cognitive developmental stage of children over the age of 7 is such that they should be capable of making judgements about their feelings and behaviour. The questionnaires were selected on the basis of well-established reliability and validity measures, and the appropriateness of the questionnaire length. It was important that the questionnaire could be completed during one lesson, and to facilitate compliance with completion it was important that the booklet was not too long or complex to complete. Age-appropriateness was also considered; many of the questionnaires examined were based on a child population and the language used was deemed too immature. A pilot study undertaken by the researcher indicated that adolescents are susceptible to feeling patronised by the language of particular questionnaires, and it was felt important to try to avoid this where possible. However, adult versions were also often inappropriate in the language used, and for example talked about "work" situations which was inappropriate for the considered sample.

2.3.1 *Revised Olweus Bully/Victim Questionnaire (ROBVQ) (1996).*

The ROBVQ consists of 39 questions for the measurement of a number of aspects of bully-victim problems, for example, the experience of bullying, the frequency of bullying, various forms of bullying, and where bullying occurs. Responses to questions determines categorical positioning of participants into one of four groups according to Olweus (1996) : - bully, victim, bully-victim and not involved. For each item participants are required to rate their experience of being a bully and being a victim of bullying according to frequency of their experience. For example, if they have never been bullied or never bullied another child they score 0. A score of 4 indicates that they have been bullied or bullied another child several times a week. A higher score indicates higher frequency of bullying and higher frequency of being a victim of bullying. Those who score more than one on both

bully and victim questions are labelled as bully-victims. The test-retest reliability and validity of the ROBVQ conducted with 5000 participants have yielded internal consistency reliabilities (Cronenbach's alpha) in the .80's and .90's. With regard to the validity of self-reports on variables related to bully-victim problems self-report items on being bullied or bullying others correlated in the .40-.60 range (Pearson correlation's). In addition, strong linear relations have been found between degree of victimisation and variables such as depression, poor self-esteem and peer rejection, and between bullying others and various dimensions of antisocial behaviour. Several studies have used the ROBVQ. Boulton and Underwood (1992) used this questionnaire to assess bully-victim problems among middle school children. They found that about 21 per cent reported being bullied, and about 17 per cent reported bullying others. Sutton and Keogh (2000) investigated social competition in school and the relationships with bullying, machiavellianism and personality using the Olweus Bullying Questionnaire. They found that bullies scored significantly higher than controls on Machiavellianism and significantly lower in terms of pro-victim attitudes.

Alternative measures of bullying were considered. These included the Life in School Checklist (Arora, 1996), the Peer Relations Questionnaire (Slee and Rigby 1993) and the Peer Nominations Questionnaire (Boulton and Smith, 1994). However, only the first two provided a measure of self-report, which was necessary for the current study, but they did not include a measure of bully-victimisation. An essential component of this study is to explore the differential patterns of substance use according to bullying status, and it was therefore necessary to include the recent categorisation of bully-victim.

2.3.2 *The Rosenberg Self-Esteem Scale (RSE) (1965).*

This questionnaire consists of ten statements of equal numbers of positive and negative expressions of self-esteem, and was designed to assess feelings of self-worth in children. It is a widely used measure both clinically and in research (DeSimone, Murray and Lester, 1994; Byrne and Mazanov, 2001) and was developed for use with adolescents in the first instance. For each item, participants are required to agree or disagree with each statement on a four point scale, ranging from 'Strongly agree' to 'Strongly disagree'. A score of one on each item indicates high self-esteem, a score of 4 indicates low self-esteem. Scores range from ten to forty with higher scores indicating lower self-esteem. An alternative method of scoring has been developed for the RSE, a score of one on each item indicates

low self-esteem and thus an overall higher score indicates higher self-esteem. In this current study this latter method of scoring was used. In a study utilising the first method of scoring, where higher scores equals lower self esteem, the mean score for a mixed sample of 2,294 participants aged 18-65 was 34.73 (standard deviation, 4.86) (Rosenberg, 1989). Johnston, Wright and Weinman (1995) comment on this sample's scores on the RSE are negatively skewed towards low self-esteem, with over 20 per cent of participants scoring the maximum of 40. Johnston et al. (1995) highlight two important issues in the valuation of the RSE. Firstly, that despite its popularity, little data exists on which to judge its psychometric status and secondly, that it is difficult to identify other tests of self-esteem in health psychology to compare with the RSE to establish its external validity. With regards to available measures of self-esteem in children and adolescents the RSE was selected for several reasons. The language used in the RSE is more adult-like, than other measures such as the Children's Self-Concept Scale (Piers, 1969) this was felt to be a significant factor when selecting a measure suitable for adolescents. Length of questionnaire was also considered, and the RSE is much shorter, and therefore more appropriate for this study than other measures such as the Culture-Free Self-Esteem Inventory (Battle, 1981). Several studies have utilised the RSE with adolescents. DeSimone, Murray and Lester (1994) used the RSE with adolescents to investigate alcohol use, self-esteem, depression and suicidality in high school students. They found that alcohol use and misuse was positively associated with depression and high self-esteem. Byrne and Mazanov (2001) used the RSE to examine self-esteem, stress and cigarette smoking in adolescents. They found that adolescents in the lowest quartile for self-esteem reported noticeably higher smoking rates.

2.3.3 *The Birlesen Depression Scale (Birlesen, 1981).*

The Birlesen Depression Scale was developed as a clinical instrument for children and adolescents to assess the degree of depressive feelings. The questionnaire uses a linear scale whereby higher scores relate to higher levels of depression; however, a clinical diagnosis cannot be made on the basis of a high score alone. There are 18 items, which score 0,1 or 2. The level of depression is indicated by the total score and the original study found that no 'normal' child scored above 11, whereas only those with diagnoses of clinical depression scored over 17. Control scores for 124 boys and 126 girls yielded mean scores of 7.76, standard deviation 4.14 (boys), and mean scores of 9.3, standard deviation 4.71 (girls). Other normative data comes from the Yule, Ollendick and Blagg (1992) study

of 250 secondary school children. Girls reported more depressive feelings than boys did, but there was little age difference. The relationship between clinical diagnosis and interview variables was found to be high. The predictive value of a score of under three being associated with a non-depressed diagnosis is 98%. Half of the children who scored highly on the BDI were clinically diagnosed, by interview, to be experiencing depression. This study also found that the test-retest reliability of the BDI was 0.80. This shows a highly satisfactory degree of stability. The internal consistency, estimated by split-half reliability coefficient, was found to be 0.86. The linearity of the scale was assessed by factor analysis. One principal factor was found, accounting for 30% of the total variance. A rotated matrix produced five factors, which together shared 61% of the total variance.

2.3.4 *The Spence Children's Anxiety Scale (SCAS) (1994).*

The SCAS consists of 44 questions (the open-ended question was removed for the purposes of this research). It is designed to provide an overall measure of anxiety in children together with scores on six sub-scales each tapping a specific aspect of child anxiety. For the purposes of this study the sub-scales were not used since the hypotheses were concerned with whether substance use is related to generalised anxiety and not any particular sub-group of anxiety. Therefore only the total scores for anxiety were required. The child is asked to rate how often each of the items happens to them on a four-point likert type scale 'never', 'sometimes', 'often' or 'always'. This yields a total possible score of 114; higher scores indicate higher levels of anxiety. The SCAS was standardised on 851 boys and 1201 girls aged 8-12 years (Spence, 1994). The total mean score was 29.27, standard deviation 15.88. The SCAS was found to discriminate between a group of clinically anxious children and a matched group of non-clinical controls. In the standardisation study, the SCAS was found to have high internal reliability, with coefficient alpha of 0.92, and a Guttman split-half reliability of 0.90. The test-retest reliability in a sample of 120 children after six months was found to be 0.51 for the total score. The concurrent validity of the SCAS has been examined in two studies. Spence (1997) examined the intercorrelation of the SCAS scores with the Revised Children's' manifest Anxiety Scale (RCMAS) (Reynolds and Richmond, 1978) The correlation between SCAS total scores and RCMAS total score was .71. The SCAS was also compared with the Children's Depression Inventory (Kovacs, 1983) and a correlation of .52 was found.

2.4 *A Measure of Substance Use*

This specific questionnaire was designed by the researcher. Before designing the questionnaire several steps were taken. The literature concerning substance use questionnaires was explored to identify possible measures to be used in this study, such as the questionnaire used by the European School Survey Project on Alcohol and other Drugs, (ESPAD, 1999), the questionnaire used by Denscombe and Druquer (1999) and the Substance Misuse in Adolescence Questionnaire (SMAQ, Swadi, 1997). However, the above questionnaires had either not been validated, were too long, were not appropriate in content or did not include the relevant information, such as patterns of substance use. A decision was subsequently taken to design a questionnaire specifically for this study, which could include both types of substances used and patterns of use. Initially, the literature and existing questionnaires were reviewed to assist in development of the questionnaire. Several items were selected from existing questionnaires, and a four-point likert type scale was used, as had been used by several reviewed questionnaires. Secondly, several adolescents were initially consulted to gain current information on street names for substances, and their ideas on who substances may be taken with and where substances may be taken. This was important since it was felt that appropriate 'slang' terms may help students provide a more accurate response. This information was combined with information gained from consultation with professionals who work in the field of drugs and alcohol. A final decision was subsequently made regarding inclusion of items, on the basis of information gained from the literature and consultation with professionals in the field and young people.

The questionnaire consisted of nineteen questions designed to assess patterns of substance use in adolescence, that is, type and frequency of substance used, who substances are taken with, and possible reasons for taking substances. Each question required a forced response on a four-point Likert type scale. Demographic data was also included, such as gender, age and educational ability band.

2.5 *Pilot Study*

The second phase of designing the questionnaire was the pilot study. A small-scale pilot study was conducted before administering the questionnaire to the school sample. This was primarily to test the face validity and the completion time of the questionnaire. This was administered to a sample of six adolescents aged 13-16 years. The pilot study was conducted under the same conditions as the main study, that is confidentiality was assured and a verbatim description of bullying was given, according to Olweus (1996) instructions. Completion of the questionnaire took approximately 40-50 minutes. Participants were asked to give feedback on the questionnaire. All said it was easy to complete and understand but highlighted the following issue concerning language. Comments were made that 'tummy' was a juvenile word, as was 'playing out' in the Birlesen Depression Scale (1981). Following this minor alterations were made to the language used in the questionnaire. For example 'tummy ache' was changed to 'stomach ache' and 'playing out' was changed to 'going out'. No other alterations were necessary.

2.6 *Recruitment Strategy*

2.6.1 Inclusion Criteria

For schools

- Inner city.
- Large number of pupils within age range.
- Permission given from Director of Education and Head Teacher.
- Support available from Educational Psychologist.
- Mixed ethnic population.
- No specific religious denomination.

For participants

- Aged 14-16 years.
- In Years 9,10 and 11.
- Not participating in any other research project.

- Parental consent obtained.

2.6.2 Exclusion Criteria

For schools

- Consent not given by Head Teacher.
- Not inner city.
- Insufficient numbers within age range.
- Insufficient liaison with Educational Psychologist.
- Clashes with school inspections

For participants

- Not in age range of 13-16 years.
- Involved in other research.
- Parental consent not obtained.

Based on the inclusion criteria the recruitment of several inner city schools was decided upon. Inner city schools were selected for several reasons; inner city schools tend to be bigger than county schools and therefore have more pupils within the age range 13-16 years. A minimum sample of 222 was needed according to the power analysis. There are also more inner city schools than county schools giving a greater sampling opportunity. Of a possible twelve inner city schools nine were excluded for several reasons. Some were of religious denominations, some were biased ethnically, with either very few or almost entirely consistent of ethnic minorities. Some did not fall within the jurisdiction of the Educational Psychologists that had agreed to support this research, and finally several excluded themselves because of participating in other research or not wanting to be involved in the sensitive nature of the research. Three inner city schools were finally recruited, giving a sample of 263 participants.

Several steps were followed to facilitate recruitment of schools. These included initial liaison with the Director of Education, who was contacted to inform him of the research protocol and to enquire about the possibility of recruiting schools from the inner city.

Permission was given to proceed with the research and to contact any schools that were deemed appropriate by the inclusion criteria.

Given the contentious nature of the research, that is, it may result in sensitive issues being raised by individual students and schools, the Head of the City Educational Psychology Department was consulted with a view to recruiting their support with schools should the need arise. This was in order to recruit the assistance of the Educational Psychologists in providing on-going support with the recruited schools, should the need arise. Only 50 per cent of the inner city schools were covered by the Educational Psychology services that the researcher was liasing with. The implication of this was that there were fewer schools to recruit from to the current study.

Selected inner city schools, who met the inclusion criteria, were then approached to enquire if they would be interested in participating in the research. Letters (see Appendix 2) and an Information sheet (see Appendix 3) detailing the purpose of the study and what would be involved were sent to each of the potential schools. This was followed up with telephone calls to reiterate the contents of the letter and request a meeting with the Head teacher, or other teacher deemed appropriate by the Head to discuss the research, such as the Pastoral Carer. Due to the sensitive nature of the study several issues were highlighted in this telephone conversation. Anonymity was assured to all potential participating schools, that is, at no point would the names of participating schools be revealed. All schools were assured that all data would be pooled, thus preventing identification of any one school.

The researcher then visited those schools that met the inclusion criteria and who provisionally consented to participate in the research to provide more detail about the study and explain what participation would involve. Several schools expressed concerns about the contentious nature of the research and were concerned that results may affect their rating in the league tables. However they were also aware of the new Healthy Schools Standard (1999) that encouraged issues of bullying and substance use to be raised and thus consented with the proviso of confidentiality and anonymity. Those schools that met the inclusion criteria and consented to participation were subsequently recruited to the study.

2.7 *Procedure*

Head teachers of several inner city schools were sent a letter of invitation (see Appendix 2) and a participant information leaflet (see Appendix 3) to take part in the study. This was followed by a telephone call and meeting to discuss any anxieties they may have concerning participation in the study. Upon their acceptance of involvement in the study Head teachers were asked to meet with the researcher at their school to discuss the procedure for administering the questionnaires to young people in Years 9, 10 and 11 (i.e. those aged between 13-16 years). This involved discussion of which classes to use, to ensure a good coverage of age ranges and academic abilities. Those in lower 'bands' were provided with the usual classroom assistance to complete the questionnaire.

Participant information leaflets (see Appendix 4) and consent forms (see Appendix 5) were sent from school by post to parents of those young people eligible to participate in the study. Parents were asked to return a form if they *did not* wish their child to participate in the study.

Those young people who met the inclusion criteria were asked to complete an anonymous questionnaire pack. Questionnaire completion took approximately 40-50 minutes, and took place during class time, such as English when the participants were streamed according to educational ability. Before administering the questionnaire a verbatim transcript (see Appendix 6) was read to the class, outlining that participation was voluntary, and that confidentiality and anonymity would be maintained. Before administering the questionnaire the researcher delivered a standardised talk outlining voluntary participation, confidentiality and assuring anonymity to those young people participating in the study.

A brief definition of bullying (Olweus, 1996) was given: -

"We say a student is being bullied when another or several other students say mean and unpleasant things or make fun of him or her or call him or her mean and hurtful names; completely ignore or exclude him or her from their group of friends or leave him or her out of things on purpose; hit, kick, push and shove around or lock him or her inside a room; tell lies or spread false rumours about him or her or send mean notes and try to make other students dislike him or her; and other hurtful things like that. When we talk about bullying, these things

happen repeatedly, and it is difficult for the student being bullied to defend himself or herself. We also call it bullying when a student is teased repeatedly in an unpleasant and hurtful way. But we don't call it bullying when teasing is made in a friendly and playful way. Also, it is not bullying when two students of about equal strength or power argue or fight".

Exam-like conditions were ensured during completion of the questionnaires to promote confidentiality, encourage openness and avoid peer influence as far as was possible. The teacher was present during questionnaire completion, but the teacher sat at the front and engaged in other work to ensure that students did not feel they were being watched whilst completing the questionnaire. The questionnaire was read aloud to those students experiencing language or literacy difficulties. For students in lower educational 'bands' the support worker remained present to assist with questionnaire completion. Whilst a possible bias in answering the questionnaire is acknowledged it was felt to be important to be socially inclusive and avoid attaching stigma to those students experiencing literacy difficulties. It was also important that students of all abilities completed the questionnaire as far as possible.

Envelopes were provided to the students to place their questionnaires in to ensure confidentiality. This was an important step to take since it was felt that students may be concerned about revealing confidential information that may be frowned upon by school authorities, such as bullying and substance use. Finally, information was given to participating students regarding where to seek help for bullying and substance use issues if needed. This included the school nurse, a teacher, school counsellor, pastoral carer, voluntary sector services and NHS services.

2.8 *Ethical Considerations*

Head teachers, parents and young people received a participant information leaflet. They were advised of their right to refuse to participate in the study, or to withdraw from the study at any time, without justifying their decision. The data is kept under secure conditions, and the Data Protection Act was adhered to. The British Educational Research Association (BERA) ethical guidelines were also followed. Any results of the research will be made totally anonymous in all published material.

Parental consent was provided on an opt-out basis. That is, parents returned consent forms (see Appendix 5) if they *did not* wish their child to participate in the study. 'Opting out' is a recognised and reliable method of obtaining consent, which several educational researchers have used, both nationally and locally (e.g. M.Plant, 1999, 2001; Denscombe and Drucquer, 1999). Participating schools were also keen that this method of consent was used. Evidence suggests that results from studies using this type of consent are less likely to be from a self-selected sample, i.e. bias is reduced. Generalisations from this study can thus be more reliably made to the general population. All parents received Information packs and letters of invitation, which were sent in the post, and if they were *not* happy for their child to participate they could return the 'opt-out' slip.

The researcher acknowledged that this was a sensitive area of research, and may raise concerns for individuals and schools. In order to address the issue of raising concerns for participants regarding bullying and substance use, support was sought from the Educational Psychologists who cover these schools and they agreed to provide support for the school and individuals as required, through negotiated teaching/support sessions. The researcher worked closely with participating schools with a view to establishing appropriate feedback mechanisms and also addressed any concerns that may have arisen from participation in this study.

Chapter Three: Results

3.1 *Overview*

The literature has revealed several theories of substance use in adolescence, including self-medication, self-identity, peer rejection, peer pressure and peer conformity. These theories suggest that patterns of substance use may vary according to bullying status (bully, victim, bully-victim and controls). The following chapter will explore the demographic data with regard to bullying, substance use and psychological distress followed by investigation of several hypotheses. The hypotheses initially explored whether psychological distress is associated with being a victim of bullying. Secondly, whether psychological distress is associated with substance use and whether increased degree of victimisation is associated with increased substance use. Thirdly, it was explored whether being a bully is linked with substance use, since it may be part of the same underlying construct. Finally, patterns of substance use were compared between bullying sub-groups.

3.2 *Method of Analysis*

This study has investigated the hypotheses drawn from current literature, which aim to explore the differential use of substances by bullies, victims of bullying and bully-victims. Descriptive and statistical analyses were carried out with an aim to address these questions. In the following section each hypothesis will be considered separately

Preliminary statistical tests were carried out to establish the characteristics of the data and to determine the appropriateness of parametric or non-parametric statistics. To carry out parametric analyses several assumptions must be met; data must be normally distributed, have homogeneity of variance and be interval or ratio data. One sample Kolmogorov-Smirnov Tests were carried out on all main outcome measures for each of the four groups, to test the assumption of normal distributions in the population from which the sample were drawn; and Levene's Test was used to test the assumption of homogeneity of variances. For those samples which did not meet the assumptions of parametric analysis, including data being interval or ratio, the data was subjected to non-parametric analysis. This will be reported on as each hypothesis is discussed. The analysis of the hypotheses

predominantly used Chi-square analysis since the data was nominal. Chi-square allows comparison of observed and expected frequencies. Where this is not the case, the test of analysis will be reported. Note that $p<0.05$ will be taken as the level of significance at a confidence interval of 95% throughout the results section. Throughout the results section several cells of analysis have an observed value of less than five. Although there is controversy surrounding the inclusion of cells with less than five Everitt (1977) argues that this is acceptable.

3.3 *Missing Data*

Complete sets of data were obtained from the majority (N= 258) of participants. However, occasionally a questionnaire within a data set was found to be too incomplete to analyse. In these cases analyses were only carried out on sufficiently completed measures. N is reported for each analysis.

3.4 *Descriptive and Explorative Analysis*

Chi-square analysis was used to explore the effect of the demographic variables, age, ability band and gender, on the variables bullying, substance use and psychological distress. Chi-square analysis was used since the data was nominal frequency data.

3.4.1 *Bullying*

Table 1. Contingency Table for the Demographic Information According to Bullying Status.

Characteristic	Bully n=43	Victim n=67	Bully-Victim n=48	Control n=105	χ^2	p
Age						
13-14 years (n=169)	30	44	32	63	1.577	0.665
15-16 years (n=94)	13	23	16	42		
Gender						
Male (n=188)	36	39	41	72	13.959	0.003*
Female (n=75)	7	28	7	33		
Band						
Top (n=147)	25	40	18	64	17.518	0.008*
Middle (n=46)	10	11	6	19		
Lower (n=70)	8	16	24	22		

* significant at the .05 level

As shown in table 1 the demographic information is presented regarding the characteristics of adolescents according to bullying status. Participants were split into four groups; those that are bullies, those that are victims, those that are both bullies and victims (bully-victims) and those that are not involved, referred to as 'controls'. Bullying was measured using a two-point scale ranging from 'it hasn't happened to me in the past couple of months' to 'it has happened more than once over the past couple of months'. Groups were found to be broadly comparable on demographic characteristics, with the exception of gender. The higher ratio of boys to girls reflects the sampling strategy, which included a single sex school of boys. Eight per cent of the data was missing due to incomplete questionnaires.

Chi-square analysis was conducted on the effect of the demographic variables, age, ability band and gender, on incidence of bullying, according to the categories 'bully', 'victim', 'bully-victim' and 'control'.

There were no significant differences between age groups on the incidence of bullying, victim-hood, bully-victim status and controls. There was a significant difference between the three ability bands (top, middle and lower) on the incidence of bullying, victim-hood, bully-victim status and controls ($\chi^2 = 17.518$, df = 6, $p < 0.05$). Pairwise analysis using Chi-square revealed a significant difference between the top and lower ability bands (($\chi^2 = 14.975$, df = 3, $p = 0.002$). The top group had more victims and bullies than the lower group. There was evidence of a significant difference between boys and girls on the variable 'bully-victim' ($\chi^2 = 13.959$, df = 2, $p < 0.01$). Boys reported being bully-victims more frequently than girls did.

3.4.2 *Substance use*

Table 2. Contingency Table for the Demographic Information According to All Substances

Characteristic	Substance Use			
	Monthly+ (n=182)	**Never (n=77)**	**χ^2**	**p**
Age				
13-14 years (n=166)	123	43	3.24	0.072
15-16 years (n=93)	59	34		
Gender				
Male (n=185)	138	47	5.796	0.016*
Female (n=74)	44	30		
Band				
Top (n=145)	89	47	1.909	0.385
Middle (n=46)	36	10		
Lower (n=68)	48	20		

* significant at the .05 level

Table 3. Contingency Table for the Demographic Information According to Depressant Use

Characteristic	Depressant Use			
	Monthly+ (n=188)	**Never (n=72)**	**χ^2**	**p**
Age				
13-14 years (n=167)	127	40	3.262	0.071
15-16 years (n=93)	61	32		
Gender				
Male (n=186)	140	46	2.862	0.091
Female (n=74)	48	26		
Band				
Top (n=145)	102	43	1.854	0.396
Middle (n=46)	37	9		
Lower (n=69)	49	20		

* significant at the .05 level

Table 4. Contingency Table for the Demographic Information According to Stimulant Use

Characteristic	Stimulant Use			
	Monthly+ (n=30)	**Never (n=228)**	**χ^2**	**p**
Age				
13-14 years (n=165)	17	148	0.782	0.377
15-16 years (n=93)	13	80		
Gender				
Male (n=184)	23	161	0.475	0.491
Female (n=74)	7	67		
Band				
Top (n=145)	14	131	8.522	0.014*
Middle (n=46)	2	44		
Lower (n=67)	14	53		

* significant at the .05 level

As shown in tables 2, 3 and 4 demographic information is presented regarding the characteristics of adolescents according to frequency of substance use. Substance use was initially measured on all substances. Because the literature (Khantzian, 1985) discusses the possibility that substance users may have a 'drug of choice' substance use was then sub-divided according to three categories, stimulants (solvents, ecstasy, amphetamine, poppers, crack and cocaine), depressants (alcohol, cannabis, heroin and prescription drugs e.g. temazepam, opiates) and hallucinogens (LSD, magic mushrooms). Use of substances was measured according to frequency, which was divided into two categories 'never used' and 'monthly plus'. Figures given in tables 2 and 3 compare frequency of 'monthly plus' substance use with 'never' used according to demographic data. Comparison of frequency of use of hallucinogens could not be carried out since the number of participants was too few (N= 10). Missing data accounted for 13% due to incomplete questionnaires.

Chi-square analysis was conducted on the effect of the demographic variables, age, ability band and gender, on frequency of substance use amongst these participants.

There was no evidence of a significant difference between the age groups (13-14 years, 15-16 years) on the frequency of use of depressants, stimulants or hallucinogens. There was evidence of a significant difference between the three ability bands (top, middle and lower) on the variable frequency of use of 'stimulants' ($\chi^2 = 8.522$, df = 2, $p < 0.05$). Pairwise analysis using Chi-square showed that the lower ability band used stimulants more frequently than the top band ($\chi^2 = 4.218$, df = 1, $p < 0.05$). A significant difference was found between boys and girls on frequency of substance use ($\chi^2 = 5.796$, df = 1, $p < 0.05$). Boys used all substances significantly more often than girls did.

3.4.3 *Psychological Distress*

Table 5. Contingency Table for the Demographic Information According to Level of Depression

Characteristic	Depression			
	High n=21	**Low n=242**	**χ^2**	**p**
Age				
13-14 years (n=169)	9	160	4.551	0.033*
15-16 years (n=94)	12	82		
Gender				
Male (n=188)	10	178	6.376	0.012*
Female (n=75)	11	64		
Band				
Top (n=147)	14	133	2.621	0.27
Middle (n=46)	1	45		
Lower (n=80)	6	64		

* significant at the .05 level

Table 6. Contingency Table for the Demographic Information According to Self-Esteem

Characteristic	Self-Esteem			
	High n=232	**Low n=27**	**χ^2**	**p**
Age				
13-14 years (n=166)	150	16	0.306	0.58
15-16 years (n=93)	82	11		
Gender				
Male (n=184)	171	13	5.660	0.017*
Female (n=75)	61	14		
Band				
Top (n=144)	132	12	1.907	0.385
Middle (n=46)	41	5		
Lower (n=69)	59	10		

* significant at the .05 level

Tables 5 and 6 present demographic information regarding the characteristics of adolescents according to level of psychological distress. Psychological distress was deemed by measuring levels of depression, anxiety and self-esteem. A participant was considered to have high depression if they scored more than 28 on the Birlsen Depression Scale, high anxiety if they scored more than 57 on the SCAS or low self-esteem if they scored less than 20 on the RSE. These points were selected since they are mid-points on each scale and mid-points have good clinical validity.

Chi-square analysis was conducted on the association of the demographic variables, age, band and gender, with levels of psychological distress, namely depression and low self-esteem. Anxiety could not be analysed since the N value for high anxiety is too small (N=8).

There was a significant difference between age groups on levels of depression ($\chi^2 = 4.551$, df = 1, $p < 0.05$). Fifteen-sixteen year olds experienced higher levels of depression. There was no evidence of a significant difference between the three bands (top, middle and lower) on the variables depression and self-esteem. There was evidence of a significant difference between boys and girls on the variables 'depression' ($\chi^2 = 6.376$, df = 2, $P < 0.05$) and 'self-esteem' ($\chi^2 = 5.660$, df = 2, $P < 0.05$). Girls reported a higher incidence of depression and lower levels of self-esteem.

3.5 *Research Hypotheses*

3.5.1 *Hypotheses One*

As has been discussed in the introduction (section 1.4.3) psychological distress is associated with bullying (Rigby, 1999). The following hypothesis therefore predicts:

- **Depression will be significantly higher amongst victims of bullying and bully-victims, compared with bullies and controls.**

- **Anxiety will be significantly higher amongst victims of bullying and bully-victims, compared with bullies and controls.**

- **Low self-esteem will be significantly more evident amongst victims of bullying and bully-victims, compared with bullies and controls.**

Table 7. Kolmogorov-Smirnov Test of Normality

Variable	K-S Value	p
Depression	**2.386**	**0.000****
Anxiety	**1.777**	**0.004***
Self-esteem	**1.611**	**0.011***

* significant at the .05 level
** significant at the .01 level

Table 8. Test of Homogeneity of Variance

Variable	Levene Statistic	P
Depression	**4.154**	**0.007****
Anxiety	**1.403**	**0.242**
Self-esteem	**2.635**	**0.050***

* significant at the .05 level
** significant at the .01 level

Table 9. Mean Ranks for Groups on Levels of Psychological Distress

	Control n=105 Mean rank	**Victim n=67** Mean rank	**Bully n=43** Mean rank	**Bully-Victim n=48** Mean rank	p
Depression	118.73	147.11	120.1	150.58	0.02*
Anxiety	109.48	145.35	122.17	168.5	0.001**
Self-esteem	137.33	117.25	152.96	111.03	0.02*

* significant at the .05 level
** significant at the .01 level

Since the data measuring depression, anxiety and low self-esteem was not normally distributed, as tested by Kolmorgorov-Smirnov test (see Table 7), and did not have homogeneity of variance, as tested by Levene's statistical analysis (see Table 8), non-parametric analysis was conducted on the data. Table 9 shows the mean ranks for the groups according to bullying status and psychological distress. Bullying was measured on a four-point scale ranging from 'it hasn't happened to me in the past couple of months' to 'several times a week'. Participants were categorised according to different bullying status. Kruskal-Wallis analysis revealed that there was a significant difference between groups with different bullying status, that is, bully, victim, bully-victim and controls, on levels of depression ($\chi^2 = 9.811$, df = 3, $p < 0.05$). Bully-victims were more depressed than bullies and controls; and victims were more depressed than bullies or controls. There was a significant difference between groups with different bullying status on levels of anxiety ($\chi^2 = 23.211$, df = 3, $p < 0.001$). Bully-victims were more anxious than bullies and controls; and victims were more anxious than bullies or controls. There was a significant difference between groups with different bullying status on levels of self-esteem ($\chi^2 = 9.868$, df = 3, $p < 0.05$). Bully-victims had lower self-esteem than bullies or controls; and victims had lower self-esteem than bullies or controls.

It may be that the results above are derived by chance, in which case the Bonferroni correction can be applied. However, the Bonferroni assumes that samples are independent, and in this case, it is not clear to what extent samples overlap. Therefore these results should be interpreted with caution. Results with a significance level of $p<0.01$ can be interpreted with greater confidence.

In summary, the hypothesis that psychological distress, namely depression, anxiety or low self-esteem will be significantly higher amongst victims of bullying and bully-victims, compared with bullies and control was confirmed. Victims and bully-victims had significantly higher levels of depression, anxiety and lower self-esteem than bullies and controls.

3.5.2 *Hypothesis Two*

This hypothesis is concerned with the relevance of the self-medication hypothesis (Khantzian, 1985). The specific hypothesis proposed that:

3.5.2.1 Those adolescents with high psychological distress, as defined by low self-esteem, high anxiety or high depression, will use substances more often than those adolescents with high self-esteem, low anxiety or low depression.

Table 10. Contingency Table of Level of Self-Esteem and Use of Substances

	Frequency	Low Self-esteem (n=27)	High Self-esteem (n=230)	χ^2	p
All substances	**Never (n=76)**	6	70	0.837	0.360
	Monthly + (n=180)	21	160		
Hallucinogens	**Never (n=247)**	18	229	4.206	0.40*
	Monthly + (n=10)	9	1		
Stimulants	**Never (n=227)**	8	219	5.944	0.015*
	Monthly + (n=30)	19	11		
Depressants	**Never (n=72)**	5	67	1.293	0.255
	Monthly + (n=185)	22	163		

*significant at the .05 level

Frequency of use was measured on a two-point scale ranging from 'never used' to 'monthly plus'. Low self-esteem was taken if the participant scored less than 20 on the RSE. Frequency of substance use was analysed overall, and no significant differences were found between those with high and low self-esteem. However, as table 10 shows, analyses of sub-categories of substances 'depressants', 'hallucinogens' and 'stimulants', there were some significant differences between those adolescents with high and low levels of self-esteem. The N in this case was 257 since six data sets were not completed fully. There was a significant difference between those adolescents with low self-esteem and those adolescents with high self-esteem on use of hallucinogens ($\chi^2 = 4.206$, $N = 257$, $p < 0.05$).

Those adolescents with low self-esteem used hallucinogens significantly more often than those adolescents with high self-esteem. However, N for hallucinogens was small (n=10), therefore this finding must be interpreted with caution. There was a significant difference between those adolescents with low self-esteem and those adolescents with high self-esteem on use of stimulants ($\chi^2 = 5.944$, N = 257, $p < 0.05$). Those adolescents with low self-esteem used stimulants significantly more often than those adolescents with high self-esteem. There was no significant difference between groups on use of depressants. In order to measure effect size the use of odds ratio's was considered. However, a significant number of cells had zero or very low numbers, which meant that an odds ratio would be too subject to distortion by chance variation.

Table 11. Contingency Table of Level of Anxiety and Use of Substances

	Frequency	Low Anxiety (n=250)	High Anxiety (n=8)	χ^2	p
All substances	**Never (n=76)**	75	1	1.142	0.285
	Monthly + (n=182)	175	7		
Hallucinogens	**Never (n=248)**	247	1	9.838	0.002**
	Monthly + (n=10)	3	7		
Stimulants	**Never (n=228)**	227	1	5.342	0.021*
	Monthly + (n=30)	23	7		
Depressants	**Never (n=73)**	70	3	0.963	0.327
	Monthly + (n=185)	180	5		

* significant at the .05 level

** significant at the .01 level

Frequency of use was measured on a two-point scale ranging from 'never used' to 'monthly plus'. High anxiety was deemed if the participant scored more than 57 on the SCAS. Frequency of substance use was analysed overall, and no significant differences were found between those with high and low anxiety. As shown in table 11 there was evidence of some significant differences between those adolescents with high and low levels of anxiety on subs-categories of substances. N in this case was 258 since five data

sets were not completed fully. There was a significant difference between those adolescents with low levels of anxiety and those adolescents with high levels of anxiety on use of stimulants ($\chi^2 = 5.342$, N = 258, $p < 0.05$). Those adolescents with low anxiety used stimulants significantly more often than those adolescents with high anxiety. There was a significant difference between those adolescents with low levels of anxiety and those adolescents with high levels of anxiety on use of hallucinogens ($\chi^2 = 9.838$, N = 257, p = 0.002). Those adolescents with high anxiety used hallucinogens significantly more often than those adolescents with low anxiety There was no significant difference between those adolescents with low levels of anxiety and those adolescents with high levels of anxiety on use of depressants. However, N for hallucinogens and anxiety was small (n =10) (n = 8) respectively, therefore these findings must be interpreted with caution.

Table 12. Contingency Table of Level of Depression and Use of Substances

	Frequency	Low Depression (n=238)	High Depression (n=21)	X^2	p
All substances	**Never (n=77)**	69	8	0.766	0.382
	Monthly + (n=195)	169	13		
Hallucinogens	**Never (n=248)**	229	19	1.957	0.162
	Monthly + (n=10)	8	2		
Stimulants	**Never (n=213)**	213	0	6.387	0.011*
	Monthly + (n=30)	9	21		
Depressants	**Never (n=72)**	66	6	0.009	0.925
	Monthly + (n=187)	172	15		

* significant at the .05 level

Frequency of use was measured on a two-point scale ranging from 'never used' to 'monthly plus'. High depression was deemed if the participant scored more than 28 on the Birlsen Depression Scale. Frequency of substance use was analysed overall, and no significant differences were found between those with high and low depression. As table 12 shows that there was evidence of some significant differences between those adolescents with high and low levels of depression on sub-categories of substances. N in

this case was 259 since four data sets were not completed fully. There was a significant difference between those adolescents with low levels of depression and those adolescents with high levels of depression on use of stimulants ($\chi^2 = 6.387$, N = 259, $p < 0.05$). Those adolescents with high levels of depression used stimulants significantly more often than those adolescents with low levels of depression. There was no significant difference between adolescents with low and high levels of depression on use of depressants or hallucinogens.

In summary, the hypothesis that participants with higher levels of psychological distress as defined by high anxiety, high depression and low self-esteem would use substances more frequently than those with low levels of psychological distress was partially confirmed. Participants with low self-esteem used stimulants and hallucinogens more than those with high self-esteem. Those with high anxiety used hallucinogens more than those with low anxiety, but those with high anxiety used stimulants less frequently than those with low anxiety. Participants with high depression used stimulants more frequently than those with low depression.

3.5.2.2 There will be a positive association between degree of victim hood and frequency of substance use. That is, as victim hood increases so too will frequency of substance use

Table 13. Association Between Victim-hood and Use of Substances

Bullying Status	**Type of Substance**		
	Stimulants (n=258)	**Hallucinogens (n=258)**	**Depressants (n=260)**
Degree of Victim hood	-0.010	-0.113*	-0.120*

* correlation is significant at the .05 level

Kendall's tau-b statistical test was used to analyse the relationship between victim-hood and substance use. One tailed Kendall's tau-b was used since the direction of effect was predicted and the data was non-parametric, in that it was ordinal. Kendall's tau-b assesses the correlation between two variables, it also takes ties into account. Degree of victim hood was measured on a four-point scale ranging from 'it hasn't happened in the past couple of months' to 'several times a week'. Frequency of substance use was measured on a five-

point scale ranging from 'never' to 'daily'. N in this case was 258 since five data sets were not completed fully. As table 13 shows there was evidence of some significant associations. There was a significant negative correlation between degree of victim hood and use of hallucinogens (magic mushrooms and LSD) (rho = -0.113, N = 258, p< 0.05, one-tailed). There was a significant negative correlation between degree of victim hood and use of depressants (alcohol, cannabis, heroin and prescription drugs e.g. valium and opiates) (rho = -0.120, N = 260, p<0.05, one-tailed). There was no significant correlation between degree of victim hood and stimulants (solvents, ecstasy, amphetamine, poppers, crack and cocaine) (rho =-0.010, N = 258, p=0.44, one-tailed). Therefore, although there was a significant correlation between victim-hood and use of hallucinogens and depressants, it was in the wrong direction. Thus the hypothesis that increased victim hood would be associated with increase frequency of substance use can be rejected.

3.5.2.3 There will be a positive association between degree of bully-victim hood and frequency of substance use. That is, as bully-victim hood increases so too will frequency of substance use

Table 14. Association between Bully-Victim hood and Substance Use

Bullying Status	Type of Substance		
	Stimulants (n=258)	Hallucinogens (n=258)	Depressants (n=260)
Bully-Victim hood	-0.016	0.059	0.67

* correlation is significant at the .05 level

One tailed Kendall's tau-b statistical test was used to analyse the relationship between bully-victim-hood and substance use. One tailed Kendall's tau-b test was used since the direction of effect was predicted and the data was non-parametric, in that it was ordinal. Degree of bully-victim hood was measured on a four-point scale ranging from 'it hasn't happened in the past couple of months' to 'several times a week'. Frequency of substance use was measured on a five-point scale ranging from 'never' to 'daily'. N in this case was 258 since five data sets were not completed fully. As table 14 shows there was no evidence of any significant correlations between bully-victim-hood and substance use. There was no significant correlation between degree of bully-victim hood and stimulants (solvents, ecstasy, amphetamine, poppers, crack and cocaine) (rho = - 0.016, N = 258, p = 0.395,

one-tailed). There was no significant correlation between degree of bully-victim hood and use of hallucinogens (magic mushrooms and LSD) (rho = 0.059, N = 258, p = 0.17, one-tailed). There was no significant correlation between degree of bully-victim hood and use of depressants (alcohol, cannabis, heroin and prescription drugs e.g. valium and opiates) (rho = 0.67, N = 260, p = 0.12,one-tailed). The hypothesis that increased bully-victim hood will be associated with increased frequency of substance use can therefore be rejected.

In summary, hypothesis two is partially supported. Those adolescents with higher levels of psychological distress, as measured by anxiety, depression and self-esteem, appear to have a higher frequency of substance use than those with lower levels of psychological distress. However, the specific hypotheses that predicted that increased victim-hood and increased bully-victim hood would be positively associated with increased frequency of substance use was not confirmed. Rather, a negative association was found between degree of victim-hood and frequency of substance use, that is, the more someone is victimised the less likely they are to use substances.

3.5.3 *Hypothesis Three*

This hypothesis concerned the personality correlates of both bullying and substance use.

It was hypothesised that an increase in frequency of being a bully would be associated with increased frequency of substance use. That is, as the degree of bullying increases so too will the frequency of substance use.

Table 15. Association Between Degree of Bullying and Use of Substances

Bullying Status	Type of Substance		
	Stimulants (n=258)	Hallucinogens (n=258)	Depressants (n=260)
Degree of Bullying	-0.011	0.084	0.136**

* correlation is significant at the .05 level
** correlation is significant at the .01 level

Kendall's tau-b statistical test was used to analyse the relationship between being a bully and frequency of substance use. Kendall's tau-b statistical test was used since the data was non-parametric, in that it was ordinal. Kendall's tau-b also deals with ties. Frequency of being a bully was measured on a four-point scale from 'it hasn't happened in the past couple of months' to 'several times a week'. Frequency of substance use was measured on a five-point scale ranging from 'never' to 'daily'. As table 15 shows there were some positive correlations between being a bully and frequency of substance use. There was a significant positive correlation between increase in frequency of being a bully and increased frequency of using depressants (rho = 0.136, N = 260, p = 0.008, one-tailed). There was no significant correlation between being a bully and stimulants (rho = -0.011, N = 258, p = 0.428, one-tailed) and being a bully and hallucinogens (rho = 0.084, N = 258, p = 0.087, one-tailed).

In summary, increased frequency of being a bully was found to be positively associated with increased frequency of use of depressants, but not associated with increased frequency of use of other substances. That is, as frequency of being a bully increases so too does the frequency of depressant use. The hypothesis that increased bullying will be associated with increased frequency of substance use can be partially confirmed.

3.5.4 *Hypothesis Four*

This hypothesis concerned the pattern of substance use amongst all groups.

3.5.4.1 Victims will be likely to use depressants more than bullies, bully-victims or controls.

Table 16. Contingency table of Bullying Subgroups and Use of Depressants

Group	Use of Depressants (n=188)	Non-use of Depressants (n=72)	χ^2	p
Bully (n=104)	71	33	7.980	0.046*
Victim (n=67)	44	23		
Bully-Victim (n= 47)	36	11		
Control (n=42)	37	5		

* significant at the .05 level

Groups were split according to bullying status; bully, victim, bully-victim and control. Responses to frequency of depressant use was measured on a two-point scale 'never' or 'monthly plus'. As shown in table 16 a significant difference was found between groups with different bullying status and use of depressants, although this was not in the direction anticipated ($\chi^2 = 7.980$, df = 3, $p<0.05$). Based on a theoretical model a specific prediction was made regarding where the difference lies. It was predicted that victims would use depressants more than bullies, bully-victims and controls would. The data for bullies, bully-victims and controls were collapsed into one group and compared with victims. Chi-square analysis was used to compare victims with all the other groups. A significant difference was not found ($\chi^2 = 0.943$, df = 1, p = 0.360). However, when bullies were compared against the other group (non-bullies) it was found that bullies used depressants significantly more often than victims, bully-victims and controls did ($\chi^2 = 6.679$, df = 1, p = 0.006).

3.5.4.2 Victims will be more likely than bullies, bully-victims or controls to use substances on their own.

Table 17. Contingency table for Use of Substances in Isolation According to Bullying Status

Group	Use in isolation (n=33)	Use with others (n=222)	χ^2	p
Bully (n=41)	5	36	2.272	0.518
Victim (n=66)	8	58		
Bully-victim (n=46)	9	37		
Control (n=102)	11	91		

* significant at the .05 level

Groups were split according to bullying status. Responses to the variable 'who substances are taken with' included '1 or 2 friends', 'A group of friends' or 'On my own'. As shown in table 17 no significant difference was found between groups of different bullying status on whom substances are used with. Victims were not more likely than bullies, bully-victims or controls to use substances in isolation.

3.5.4.3 Victims will be more likely than bullies, bully-victims or controls to use substances to suppress negative emotion.

Table 18. Contingency table for Use of Substances to 'Block out negative feelings' according to Bullying Status

Group	Use to 'block out negative feelings' (n=33)	Use for other reasons (n=220)	χ^2	p
Bully (n=40)	1	39	12.467	0.006*
Victim (n=64)	15	49		
Bully-victim (n=46)	8	38		
Control (n= 103)	9	94		

* significant at the .05 level

Table 19. Contingency table for Use of Substances to 'Block out bad things' according to Bullying Status

Group	Use to 'block out bad Things' (n=29)	Use for other reasons (n=224)	χ^2	p
Bully (n=40)	2	38	8.798	0.032*
Victim (n=64)	12	52		
Bully-Victim (n=46)	8	38		
Control (n=103)	7	96		

* significant at the .05 level

Groups were split according to bullying status. Responses to reasons for using substances included 'To see what it's like', 'To have a good time', 'To fit in with friends', 'For something to do', 'To block out feelings', `To block out bad things that have happened' and 'To make me feel more confident'. As shown in table 18 and table 19 significant differences were found between groups on why substances are used, that is, 'To block out feelings'. (χ^2=12.467, df = 3, p<0.05), and 'To block out bad things that have happened to them' (χ^2 = 8.798, df = 3, p<0.05). Based on a theoretical model specific predictions were made regarding where the difference lies. It was predicted that victims would be more likely than bullies, bully-victims and controls to use substances 'To block out feelings' and `To block out bad things that have happened'. The data for bullies, bully-victims and controls were collapsed into one group and compared with victims. Using Chi-square analysis a significant difference was found between victims and all other bullying subs-groups on reasons for using substances. Victims were more likely to use substances 'To block out feelings'. (χ^2 = 8.579, df =1 , p = 0.02), and 'To block out bad things that have happened to them' (χ^2 = 7.241, df = 1, p = 0.04).

3.5.4.4 Bullies will be likely to use stimulants more than victims, bully-victims or controls.

Table 20. Contingency table of Bullying Subgroups and Use of Stimulants

Group	Use of Stimulants (n=30)	Non-use of Stimulants (n=228)	χ^2	p
Bully (n=41)	4	37	0.814	0.846
Victim (n=67)	9	58		
Bully-Victim (n=46)	4	42		
Control (n=104)	13	91		

* significant at the .05 level

Groups were split according to bullying status. Responses to frequency of stimulant use was measured on a two-point scale 'never' or 'monthly plus'. As shown in table 20 no significant difference was found between groups of different bullying status on frequency of stimulant use ($\chi^2 = 0.814$, df = 3, $p > 0.05$). Bullies did not use stimulants significantly more than victims, bully-victims or controls.

3.5.4.5 Bullies will be more likely than victims, bully-victims or controls to use substances in peer groups.

Table 21. Contingency Table for Use of Substances With Peers According to Bullying Status

Group	Use with peers (n=105)	Use with non-peers (n=149)	χ^2	p
Bully (n=40)	20	20	5.111	0.164
Victim (n=66)	24	42		
Bully-Victim (n=46)	14	32		
Control (n=102)	47	55		

* significant at the .05 level

Responses to the variable 'who substances are taken with' included '1 or 2 friends', 'A group of friends' or 'On my own'. As shown in table 21 no significant difference was found between groups with differing bullying status on the variable 'whom substances are used with'. Bullies were not more likely than victims, bully-victims or controls to use substances in peer groups.

3.5.4.6 Bullies will be more likely than victims, bully-victims or controls to use substances to 'fit in with friends'.

Table 22. Contingency table for Use of Substances to 'Fit in with friends' According to Bullying Status

Group	Use to 'Fit in with friends' (n=30)	Use for other reasons (n=223)	χ^2	p
Bully (n=64)	13	51	10.05	0.018*
Victim (n=40)	2	38		
Bully-Victim (n=46)	8	38		
Control (n=103)	7	96		

* significant at the .05 level

Table 23: Contingency table for Use of Substances to 'Have a good time' According to Bullying Status

Group	Use to 'Have a good Time' (n=123)	Use for other reasons (n=130)	χ^2	p
Bully (n=40)	28	12	9.920	0.019*
Victim (n=64)	20	44		
Bully-Victim (n=46)	22	24		
Control (n=103)	53	50		

* significant at the .05 level

Differences were explored according to bullying status, that is, bully, victim, bully-victim or control. Responses were reported for the variable 'reasons for substance use'. Responses to reasons for using substances included 'To see what it's like', 'To have a good time', 'To fit in with friends', 'To block out feelings', 'To block out bad things that have happened', 'For something to do' and 'To make me feel more confident'. As shown in table 22 and table 23 significant differences were found on the variable 'reasons for substance use'. Specifically on use of substances 'to have a good time' (χ^2=9.920, df = 3, p<0.05), and 'to fit in with friends' (χ^2=10.05, df = 3, p<0.05). Based on a theoretical model specific predictions were made regarding where the difference lies. It was predicted that bullies are more likely than victims to use substances 'to have a good time' and 'to fit in with friends'. The data for victims, bully-victims and controls were collapsed into one group and compared with bullies. Using Chi-square analysis a significant difference was found between bullies and victims, bully-victims and controls on the variable 'reasons for substance use'. Bullies were more likely than victims, bully-victims and controls to use substances 'to have a good time' (χ^2=8.523, df =, p = 0.005). Bullies were also more likely than victims, bully-victims and controls to use substances 'to fit in with friends' (χ^2 = 4.240, df = 1, p = 0.04).

3.5.4.7 There will be no significant difference between bully-victims and victims, bullies or controls on frequency of substance use.

Table 24. Contingency table of Bullying Subgroups and Use of Substances

Group	Use of Substances (n=182)	Non-use of Substances (n=77)	χ^2	p
Bully (n=42)	36	6	4.619	0.35
Victim (n=67)	41	26		
Bully-Victim (n=46)	35	11		
Control (n=104)	70	34		

* significant at the .05 level

Groups were split according to bullying status. Responses to frequency of substance use was measured on a two-point scale 'never' or 'monthly plus' and compared use of any

substance. As shown in table 24 there were no significant differences between bully-victims and victims, bullies or controls on frequency of substance use. The hypothesis that there would be no significant difference between bully-victims and the other bullying groups was confirmed. Bully-victims were not found to use substances more than victims, bullies and controls.

3.5.4.3 There will be no significant difference between bully-victims and victims, bullies or controls on the variable 'whom substances are taken with'.

Table 25. Contingency Table of Bullying Subgroups and Who Substances are Used With

	Bully (n=31)	Victim (n=44)	Bully-Victim (n=31)	Control (n=80)	χ^2	p
1-2 people (n = 48)	6	12	8	22	4.117	0.661
Group of peers (n = 105)	20	24	14	47	5.111	0.164
On own (n = 33)	5	8	9	11	2.272	0.518

* significant at the .05 level

Groups were split according to bullying status. Responses to who substances were used with included '1-2 friends', 'a group of friends' or 'on my own'. As shown in table 25 no significant differences were found between bully-victims and victims, bully-victims and bullies or bully-victims and controls on the variable 'whom substances are taken with'. The hypothesis that there will be no significant difference between bully-victims and victims, bullies or controls on the variable 'whom substances are taken with' can be confirmed.

In summary, hypothesis four can be partially rejected. It was predicted that victims would be more likely to use depressants than any other bullying group, i.e. bullies, bully-victims or controls. This was not found to be the case. It was also predicted that victims would use substances on their own, but no significant difference was found on the variable 'whom substances are taken with'. It was predicted that victims would use substances to block out negative emotion, and this was found to be the case.

The second part of hypothesis four can be partially rejected. It was predicted that bullies would be more likely to use stimulants than any other bullying group, i.e. victims, bully-victims or controls. This was not found to be the case. It was also predicted that bullies would use substances in groups more than victims, bully-victims or controls. However, no significant difference was found between groups with differing bullying status on the variable 'whom substances are used with'. It was predicted that bullies would be more likely than victims, bully-victims or controls to use substances to 'fit in with friends'. This hypothesis was confirmed.

The final part of the hypothesis can be confirmed. It was predicted that there would be no significant difference between bully-victims and victims, bully-victims and bullies or bully-victims and controls on frequency of substance use. This prediction was confirmed. It was also predicted that there would be no significant difference between bully-victims and victims, bully-victims and bullies or bully-victims and controls on the variable 'whom substances are taken with'. This prediction was confirmed.

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3.6 *Summary of Results*

In summary, it appears that victims and bully-victims had greater levels of psychological distress, namely depression, anxiety and low self-esteem, than bullies and controls. This finding supports the prediction that psychological distress is associated with bullying (Rigby, 1999).

Secondly, it was predicted that high levels of psychological distress would be associated with greater substance use than low levels of psychological distress. This prediction was partially confirmed. Those with low self-esteem used stimulants and hallucinogens more than those with high self-esteem. Those with high anxiety used hallucinogens more than those with low anxiety. However, N for hallucinogens was small (n=10), so results must be interpreted with caution. Participants with high levels of depression used stimulants more frequently than those with low levels of depression. It was also investigated whether increased degree of victimisation is associated with increased substance use. It was found that there was a significant negative correlation between degree of victim hood and use of hallucinogens and between degree of victim hood and use of depressants. However, the correlation was in the wrong direction to that predicted. There was no significant correlation between degree of victim hood and stimulants

Thirdly, it was explored whether being a bully is linked with substance use, since it may be part of the same underlying construct. Increased frequency of being a bully was found to be positively correlated with increased frequency of depressant use, but not stimulants or hallucinogens.

Finally, patterns of substance use were compared between bullying sub-groups. Victims were most likely to use substances to block out bad things that had happened and to block out negative emotions. Bullies were found to use depressants more than victims, bully-victims and controls. Bullies were most likely to use substances to fit in with friends and have a good time. No significant differences were found between bully-victims and the other bullying sub-groups on frequency of substance use, and whom substances are used with. Bully-victims do not appear to have an identifiable pattern of substance use.

Chapter Four: Discussion

4.1 *Overview*

This study aimed to explore links between bullying and the use of substances by adolescents. This study was particularly interested in investigating whether patterns of substance use, for example, type of substance, who substances are taken with and reasons for use, vary according to bullying status, for example, bully, victim and bully-victims. In addition the relationship between bullying and psychological health, and psychological health and substance use is explored. The following chapter will consider each of the research hypotheses derived from the literature review. The initial section will review the self-medication hypothesis, for example, the effect of bullying on psychological health, whether being a victim of bullying is associated with poorer psychological health and whether greater psychological distress is associated with more frequent substance use. The following hypothesis will explore the theoretical idea that bullying and substance use are part of the same underlying construct. Finally, patterns of substance will be compared between bullying sub-groups. Methodological reasons for these findings are considered later in the discussion. The results of this study will be compared to those of previous research, new findings will be highlighted, and limitations of the present research will be considered. Finally, clinical implications for services, in light of the present findings will be discussed.

4.2 *Research Hypothesis*

4.2.1 *Hypothesis One*

As has been discussed in the introduction there are many negative psychological factors associated with bullying (Rigby, 1999). The following hypothesis predicts:

- **Depression will be significantly higher amongst victims of bullying and bully-victims, compared with bullies and controls.**

- **Anxiety will be significantly higher amongst victims of bullying and bully-victims, compared with bullies and controls.**

- **Low self-esteem will be more evident amongst victims of bullying and bully-victims, compared with bullies and controls.**

Based on the research literature that bullying is associated with psychological distress, it was predicted that victims of bullying, including bully-victims, would have higher levels of psychological distress, namely anxiety, depression and low self-esteem. The hypothesis that victims of bullying and bully-victims will have significantly higher levels of psychological distress when compared to bullies and controls was supported. The mean depression score, scored on the Birlesen Depression Scale, was higher for bully-victims, and victims than the mean scores for both controls and bullies. The mean anxiety score, scored on the Spence Children's Anxiety Scale, was higher for bully-victims, and victims than the mean scores for both controls and bullies. The mean self-esteem score, scored on the Rosenberg Self-Esteem Scale, was lower for bully-victims, and victims than the mean scores for both controls and bullies. Bully-victims scored the highest mean scores for depression and anxiety, and the lowest mean score for self-esteem. The results of this study indicate that bully-victims are the group showing greatest psychological distress, followed by victims.

No prediction was made about a difference between victims and bully-victims. However, the means suggest that bully-victims had the highest levels of psychological distress. This

finding is consistent with previous studies which have found that anxiety and depression were most common among bully-victims (Kaltiala-Heino, Rimpela, Rantanen and Rimpela, 2000). The research literature (Boulton and Smith, 1994) reports that bully-victims have low self-esteem. This concurs with the current studies finding that bully-victims have low self-esteem. Bully-victims have been described as being particularly rejected by peers, and differing from other victims by being provocative and starting fights. This current studies finding of high levels of psychological distress, including low self-esteem, among bully-victims may reflect the negative view that bully-victims have of themselves, suggesting that they internalise their distress, as well as externalising it in aggressive bullying ways.

The finding that victims of bullying have high psychological distress is consistent with previous studies which have found that victimisation at school may lead to long-term negative social, emotional and psychological effects (Sharp, 1995), including depression (Parker and Asher, 1997) and lower self-esteem (Boulton and Smith, 1994). The direction of effect is unclear; that is, causality between mental health problems and bullying cannot be concluded. It may be that victimisation leads to psychological distress, but it is also possible that adolescents with mental health problems are less able to defend themselves and thus attract negative attention.

The finding that bully-victims are the group showing greatest psychological distress, followed by victims may be explained by the lack of peer group which both these groups of adolescents experience. Adams and Adams (1991) found that peer contact is a source of information, advice and sympathy, which facilitates coping with adolescent emotional distress. However, the nature of these groups of adolescents places them in the adverse position of lacking this apparently vital support mechanism, not only that, but these groups experience direct hostility from the peer group that the literature suggests should be supporting them through adolescence. It is not surprising then that these groups experience high levels of psychological distress, since not only are they victims, but they have limited peer support to help them cope with their distress.

With regard to bullies and psychological distress, the literature is controversial, Olweus (1994) suggests that bullies have high self esteem and Kaltiala-Heino et al. (2000) found that bullies have low self-esteem. The current study made no prediction about bullies and

self-esteem but the current studies finding is consistent with Olweus' (1994) finding that bullies have high self-esteem. Sutton (2001) suggests that bullies may do so *because* they understand the emotional consequences of what they do, and it has tangible rewards, such as extra money, and makes them feel good, subsequently strengthening their self-esteem. However, the current studies finding is not consistent with Kaltiala-Heino, Rimpela, Rantanen and Rimpela, (2000), who found that depression, and anxiety were found to be equally common among bullies as victims.

In summary, as predicted, bully-victims and victims show greater psychological distress than either controls or bullies. The results of this study indicate that bully-victims are the group showing greatest psychological distress, followed by victims. It would appear that psychological distress is associated with being a victim of bullying. This finding is consistent with previous research. However, the direction of effect is unclear; that is, causality between mental health problems and bullying cannot be concluded.

4.2.2 *Hypothesis Two*

This hypothesis is concerned with the relevance of the self-medication hypothesis (Khantzian, 1985). The specific hypothesis proposed that:

4.2.2.1 Those adolescents with high psychological distress, as defined by low self-esteem, high anxiety or high depression, will use substances more often than those adolescents with high self-esteem, low anxiety or low depression.

Based on the research literature surrounding the self-medication hypothesis it was predicted that those participants with higher levels of psychological distress would use substances more frequently to alleviate the symptoms of distress. Although there were no significant differences found between groups (low and high psychological distress) on all substances, when substances were subcategorised into types significant differences were found between groups. The hypothesis that those adolescents with high levels of depression will use substances more frequently than those with low levels of depression was partially supported. Those adolescents with high levels of depression used stimulants more often than those with low levels of depression. There was no difference found on use of hallucinogens or depressants. Secondly, the hypothesis that those adolescents with high levels of anxiety will use substances more frequently than those with low levels of anxiety was partially supported. Those adolescents with high levels of anxiety used hallucinogens more often than those with low levels of anxiety Those adolescents with low levels of anxiety used stimulants more often than those with high levels of anxiety. There was no difference found on use of depressants. Thirdly, the hypothesis that those adolescents with low self-esteem will use substances more frequently than those with high self-esteem was partially supported. Those adolescents with low self-esteem used stimulants and hallucinogens more often than those with high self-esteem. However, the number of participants using hallucinogens and the number of participants with high levels of anxiety was small, therefore these findings must be interpreted with caution.

These findings are consistent with the literature on the self-medication hypothesis (Khantzian, 1985), that is that substances are specifically selected to medicate negative affect, such as depression, anxiety and low self-esteem. It would also appear that adolescents are exerting a degree of selection and not using *any* substance available to

them. It would also appear that adolescents with high psychological distress are selecting stimulants which may give them an inflated sense of self-worth, which otherwise is low. Use of hallucinogens may be hypothesised provides them with an alternative reality, which may be preferable to the reality that they usually experience. These findings may also reflect availability of substances, such as magic mushrooms, which have a seasonal variation. Considering that this study was conducted during September, this coincides with high availability of magic mushrooms, this observation may partially explain the increased use of hallucinogens by participants.

4.2.2.2 There will be a positive association between degree of victim-hood and frequency of substance use. That is, as victim-hood increases so too will frequency of substance use.

Based on the evidence that victims experience greater psychological distress (Rigby, 1998; Rigby, 1999), it was hypothesised that an increase in frequency of being a victim would be associated with more frequent substance use. This hypothesis was not confirmed according to scores on the measure of substance use used in this study. Rather, there was a negative association with being a victim and using substances, this implies that as frequency of victim-hood increases, use of substances decreases. However, this finding is not consistent with the self-medication hypothesis (Khantzian, 1985) which suggests that substances may be used to self-medicate negative affect. But, this result is consistent with previous studies which have found that victims report even less frequent substance use than those not involved in bullying (Kaltiala-Heino, Rimpela, Rantanen and Rimpela, 2000).

It may be concluded that either victims of bullying do not experience negative affect as the result of bullying, and therefore do not experience the need to self-medicate, or, victims of bullying do experience psychological distress but choose not to self-medicate. The issue of whether victims do or do not experience psychological distress has been considered previously in hypothesis one. It was found that in fact victims and bully-victim do experience greater psychological distress than bullies or controls. Two possible explanations exist for the finding that being a victim of bullying is not associated with substance use. It may be that victims have not yet associated substance use with alleviation of distress. The sample that Khantzian used were adults who may have more experience in selecting specific substances to medicate certain emotional states. There is evidence that

adults self-medicate distress (Khantzian, 1985), perhaps the self-medication hypothesis is specific to adults? A second possible explanation for the finding that being a victim of bullying is not associated with substance use may be the limited availability of peers that victims of bullying have who may otherwise be the suppliers of substances or exert pressure to use substances. This finding may also reflect an atypical sample, who are not representative of the population, in which case this finding may be a result of limitations of this study. Possible limitations of this study are considered later in this discussion.

4.2.2.3 There will be a positive association between degree of bully-victim-hood and frequency of substance use. That is, as bully-victim-hood increases so too will frequency of substance use.

Based on the evidence that bully-victims experience greater psychological distress (Rigby, 1998; Rigby, 1999), it was hypothesised that an increase in frequency of being a bully-victim would be associated with more frequent substance use. The hypothesis that increased bully-victim-hood will be associated with substance use was not confirmed. An association between bully-victim status and use of stimulants, hallucinogens and depressants was not confirmed. This result is not consistent with the self-medication hypothesis, which would suggest that bully-victims would self-medicate the distress resultant from bullying. However, this result shows some consistency with previous studies which found use of substances were most common among bullies and thereafter among bully-victims (Kaltiala-Heino, Rimpela, Rantanen and Rimpela, 2000). Possible explanation for this finding may be related to the reduced availability of substances through lack of peer group, or bully-victims choose other ways to cope with their psychological distress, such as externalising it and bullying others.

In summary, whilst there was no relationship between psychological distress and use of stimulants and hallucinogens. Khantzian's (1985) self-medication hypothesis may partially explain these findings, in terms of medicating negative affect. The results of this study also suggest that increased victim-hood and increased bully-victim-hood is not associated with increased substance use. But rather as the frequency of being a victim increases use of substances decreases. Of interest is the apparent selection of specific

substances to medicate negative emotion, which supports the second part of the self-medication hypothesis, which suggests that users have a 'drug of choice'.

Of further interest is the apparent lack of substance use by victims, who in accordance with the self-medication hypothesis would be expected to use substances to self-medicate their higher levels of psychological distress. The question may be, why do they not self-medicate? One possible explanation for this finding may be the lack of peer group that victims have, who may otherwise exert pressure to use substances or supply substances. However, this finding does coincide with previous studies (Kaltiala-Heino, Rimpela, Rantanen and Rimpela, 2000).

4.2.3 *Hypothesis Three*

This hypothesis concerned the personality correlates of both bullying and substance use.

It was hypothesised that an increase in frequency of being a bully would be associated with increased frequency of substance use. That is, as the degree of bullying increases so too will the frequency of substance use.

The evidence suggests that bullying and substance use may be part of the same underlying theoretical construct, and that bullying may be an early manifestation of later delinquency (Baldry and Farrington, 2000). It was therefore predicted that increased bullying would be associated with increased frequency of substance use. The hypothesis that bullying will be associated with substance use was partially confirmed. A positive association between bullies and use of depressants was found. No association was found between bullies and use of stimulants or hallucinogens. This finding is consistent with the literature which suggests that bullies are at risk for other problem behaviours such as substance use (Farrington, 1993).

Two possible explanations for this finding are as follows. Sutton (2001) suggests that bullies may view aggression as an effective social strategy because it is easy and it works, often resulting in tangible rewards, such as extra money. It may be that bullies are extorting money from their victims in order to fund their use of substances. Secondly, the association between bullies and use of depressants may be explained by the idea that bullies are extremely concerned about their social image and possess a desire to create a powerful reputation (Sutton and Keogh, 2000). Perhaps the use of substances (e.g. alcohol, cannabis) adds to this presentation and fulfils their desire for social success, particularly among peers.

However, an alternative explanation may derive from Khantzian's (1985) self-medication hypothesis. Wurmser (1974) suggested that opiate addicts select their substance because it has a direct 'anti-aggression' action, which counteracts the feelings of rage and aggression that the opiate addict experiences in their drug-free state. There is controversy in the literature regarding the use of opiates, that is, whether opiates are used to suppress feelings

of rage and aggression (Wurmser, 1974), or use arises from a natural tendency to isolation and withdrawal (Milkman and Frosch, 1973). However the findings from this study suggest that depressants may be used to suppress the aggressive feelings that a bully has in their drug-free state. The finding that bullying is associated with use of depressants, but not stimulants or hallucinogens, suggest that there may be a degree of selection occurring, bullies are not taking *any* substance available to them, but exerting a degree of choice in selecting their substance.

An alternative explanation for the finding that bullying is associated with use of depressants may be that it is about availability, or cost, and perhaps bullies extort money from victims in order to pay for substances such as alcohol or cannabis. However, the number of participants using stimulants and hallucinogens is small, therefore these findings must be interpreted with caution.

Andreou (2000) suggests that bullies have low social acceptance which may lead to a small but powerful network which will result in a need to conform with peers. This network of peers may be with other bullies who also use substances, such as alcohol and cannabis (depressants), and thus the need to conform may lead to or encourage substance use.

The current studies findings are consistent with the literature on delinquency, which suggest that bullies are more likely to gain a criminal record for delinquency, such as breaking and entering and substance use (Olweus, 1994). This view is consistent with an externalising personality, that is, bullies exhibit behavioural problems, including aggression, and substance use. It is unclear to what extent bullying and substance use are indicators of the same theoretical construct, e.g. anti-social personality disorder. It may be that as Baldry and Farrington (2000) suggest, bullying is an early stage on a developmental sequence leading to delinquency. With regards to personality, patients with anti-social personality were found to abuse depressants twice as often as patients with borderline personality (Hatzitaskos, Soldatos, Kokkevi and Stefanis, 1999). This finding is consistent with the current studies findings, that bullies use depressants, which may be indicative of an underlying anti-social personality disorder.

The results of this study suggest increased frequency of being a bully is associated with increased frequency of depressant use. This finding is consistent with the previous

literature. It would appear that bullying and substance use are part of the same theoretical construct, e.g. anti-social personality disorder. However, it also appears that bullies exert some degree of selection over their substance use, and may possibly be self-medicating their feelings of rage and aggression that in a drug-free state they experience as intolerable, and which otherwise are directed against victims of bullying.

4.2.4 *Hypothesis Four*

This hypothesis concerned the pattern of substance use amongst all groups.

4.2.4.1 Victims will be likely to use depressants more than bullies, bully-victims or controls.

Based on the evidence that victims experience psychological distress, it was hypothesised that they would selectively self-medicate, choosing depressants to suppress negative emotions. The hypothesis that victims would use depressants was not confirmed. This finding is not unexpected since hypothesis 4.2.2.2, which predicted an association between victim-hood and substance use, found an inverse relationship between victim-hood and substance use. A significant difference between victims, bullies, bully-victims and controls on use of depressants was found, but not in the anticipated direction. Bullies used depressants more often than victims, bully-victims and controls. Given the lack of research studies which have investigated bullying and substance use this hypothesis was based on Khantzian's (1985) self-medication hypothesis.

4.2.4.2. Victims will be more likely than bullies, bully-victims or controls to use substances on their own.

It was predicted that victims would use substances in isolation due to a lack of peer group. The hypothesis that victims would use substances on their own was not confirmed. It is possible that this sample were not typical of victims, but it could be hypothesised that victims are not peerless and use substances with other victims or bully-victims in their own peer group.

4.2.4.3 Victims will be more likely than bullies, bully-victims or controls to use substances to suppress negative emotion.

A significant difference between bullying sub-groups was found on why substances are used. Victims are more likely to use substances to block out bad things that have happened to them, and to block out negative feelings, such as sadness and worry. Whilst there is no evidence to suggest the source of these negative feelings it could be hypothesised that

victims experience bullying as a negative event which requires alleviation, and substances perform this function. This finding is in line with previous literature, which although not specifically targeted at bullying focused on other negative life events which were perceived as stressful and in need of abatement. Hoffman, Cerbone and Su (2000) found that negative life events are associated with significant increases in substance use. However, there is an absence of literature addressing the pattern of substance use, that is, whether substances are used in groups or in isolation by victims of bullying.

4.2.4.4 Bullies will be likely to use stimulants more than victims, bully-victims or controls.

Given the lack of research evidence addressing substance use it was hypothesised that stimulants would be used by bullies since drugs such as ecstasy (a stimulant) is a popular drug among the adolescent culture (Gilvarry, 2000). It was hypothesised that bullies would be susceptible to market forces (Miles, Cliff and Burr, 1998). However, the hypothesis that bullies will use stimulants was not confirmed. Again, this result is not unexpected given the finding of hypothesis 4.2.3, which predicted an association between substance use and being a bully and found no significant correlation between stimulants and being a bully. This finding may be due to the small number of participants who use stimulants. This finding may also be due to the lack of peer pressure that bullies experience, and therefore their substance use is governed not by peer pressure but by other factors such as establishing an identity (Denscombe and Drucquer, 1999). In addition, this finding may be due to the relative cost of stimulants in that they are more costly than other substances such as alcohol and cannabis.

4.2.4.5 Bullies will be more likely than victims, bully-victims or controls to use substances in peer groups.

This hypothesis was based on the idea that bullies would be susceptible to peer pressure and therefore use substances in groups (Santor, Messervey and Kusumakar, 2000). However, no significant differences were found between bullying sub-groups and use of substance in groups.

4.2.4.6 Bullies will be more likely than victims, bully-victims or controls to use substances to 'fit in with friends'.

A significant difference was found on reasons for substance use. Bullies used substances to have a good time and to fit in with friends. This finding is consistent with previous studies which suggest that peer conformity is a strong predictor of risk behaviour, including substance use (Santor, Messervey and Kusumakar, 2000). Interpretation of this result suggests that it is not pressure which leads to substance use, but a desire to adopt certain behaviours which are sanctioned by the peer group. Furthermore, use of substances by bullies to have a good time may reflect Khantzian's (1985) idea that substances facilitate the experience of positive feelings, which are normally prevented by the rigid defences against aggression.

4.2.4.6 There will be no significant difference between bully-victims and victims, bullies or controls on frequency of substance use.

This hypothesis was based on the premise that bully-victims would not have a unique pattern of substance use since they are both bullies and victims and will therefore adopt those patterns of use. The hypothesis that there will be no significant difference between bully-victims and victims, bullies or controls on frequency of substance use was confirmed.

4.2.4.7 There will be no significant difference between bully-victims and victims, bullies or controls on the variable 'whom substances are taken with'.

The hypothesis that there will be no significant difference between bully-victims and victims, bullies or controls on 'whom substances are taken with' was confirmed. Again, this was based on the hypothesis that bully-victims would not have a distinguishable pattern of substance use. But rather follow the patterns of substance use of bullies and victims, since they are both.

In summary, it would appear that victims of bullying do not use depressants, as was predicted. This finding is not supported by the self-medication hypothesis. However, the substances they do use are to block out feelings and bad things that have happened to them.

Bullies do not use stimulants and would appear not to be affected by market forces and subsequently do not use 'popular' drugs. Bullies appear not to be susceptible to peer pressure but to peer conformity, using substances in order to fit in. The self-medication hypothesis may also be correct in that bullies also use substances to have a good time; this may be in line with Khantzian's prediction that substances facilitate the experience of positive emotion, and suppression of aggressive feelings. Bully-victims do not appear to have a unique identifiable pattern of substance use, unlike bullies and victims who differ in reasons for use of substances.

4.3 *Summary of Findings and Relation to Previous Literature*

The previous section has reviewed the findings of the hypothesis with consideration to theories of substance use in adolescence. This summary section will consider how these theories apply to bullying subgroups, that is, victims, bully-victims and bullies.

4.3.1 *Victims*

It was predicted that victims of bullying would experience greater psychological distress than bullies or controls. The results from the questionnaires measuring psychological distress suggest that being a victim of bullying is positively associated with depression, anxiety and low self-esteem. This is a consistent finding with previous literature which found that anxiety and depression were most common among bully-victims and thereafter victims (Kaltiala-Heino, Rimpela, Rantanen and Rimpela, 2000) and also that victimisation may lead to long-term negative psychological effects (Sharp, 1995).

According to Khantzian's (1985) self-medication hypothesis it was predicted that being a victim of bullying would be associated with substance use, in order to alleviate the distress associated with being a victim. However, this prediction was not confirmed, rather, being a victim is negatively associated with substance use. That is, as frequency of being a victim increases, substance use decreases. This finding replicates earlier research which found that victims report even less substance use than those not involved in bullying (Kaltiala-Heino, Rimpela, Rantanen and Rimpela, 2000).

It would appear that substance use amongst victims is not a common strategy to deal with psychological distress, but those who do use substances may do so to alleviate negative emotions. The use of substances by victims was reported to alleviate negative feelings and block out bad things that have happened to them. This finding extends previous research which did not explore reasons for use (Kaltiala-Heino, et al. 2000).

4.3.2 *Bully-Victims*

Bully-victims appear to have higher levels of psychological distress than bullies or controls. This is a consistent finding with previous literature which found that anxiety and depression were most common among bully-victims and thereafter victims (Kaltiala-Heino, Rimpela, Rantanen and Rimpela, 2000). In addition, bully-victims do not appear to have a unique identifiable pattern of substance use. They appear to follow a pattern of substance use most like that of victims, that is, experiencing psychological distress and having no significant correlation with substance use. This extends previous studies which have not explored patterns of substance use (Kaltiala-Heino, Rimpela, Rantanen and Rimpela, 2000).

4.3.3 *Bullies*

In comparison to victims and bully-victims bullies were found to have high self-esteem, and this finding is consistent with previous studies (Olweus, 1994; Sutton, 2001). This finding extends the results of previous work on the psychological status of bullies, which did not use a measure of self-esteem (Kaltiala-Heino, et al. 2000).

A correlation was found between being a bully and frequency of depressant use. This finding supports the hypothesis that bullying and substance use are part of the same theoretical construct e.g. anti-social personality disorder (Baldry and Farrington, 2000). This finding also supports the self-medication hypothesis (Khantzian, 1985) which proposes use of depressants because of their direct 'anti-aggression' action. In addition, this finding extends previous work on bullying and substance use which did not sub-divide substances into types (Kaltiala-Heino, Rimpela, Rantanen and Rimpela, 2000).

In comparison to victims and bully-victims, bullies reported use of substances to 'fit in' and 'have a good time', this finding extends previous research which did not explore reasons for substance use(Kaltiala-Heino, Rimpela, Rantanen and Rimpela, 2000). It also supports Santor, Messervey and Kusumakar's (2000) study, which found that peer conformity is a strong predictor of risk behaviour, including substance use.

Table 26 Summary of Hypotheses and Corresponding Results

Hypothesis	Results
<u>Hypothesis One</u> • Depression will be significantly higher amongst victims of bullying and bully-victims, compared with bullies and controls • Anxiety will be significantly higher amongst victims of bullying and bully-victims, compared with bullies and controls. • Low self-esteem will be more evident amongst victims of bullying and bully-victims, compared with bullies and controls.	• Bully-victims and victims were significantly more depressed than bullies or controls. • Bully-victims and victims were significantly more anxious than bullies or controls. • Bully-victims and victims had significantly lower self-esteem than bullies or controls.
<u>Hypothesis Two</u> This hypothesis is concerned with the relevance of the self-medication hypothesis (Khantzian, 1985). The specific hypothesis proposed that: • Those adolescents with high psychological distress, as defined by low self-esteem, high anxiety or high depression, will use substances more often than those adolescents with high self-esteem, low anxiety or low depression. • There will be a positive association between degree of victim hood and frequency of substance use. That is, as victim hood increases so too will frequency of substance use. • There will be a positive association between degree of bully-victim hood and frequency of substance use. That is, as bully-victim hood increases so too will frequency of substance use	• Those adolescents with higher levels of psychological distress appear to have higher frequency of stimulant and hallucinogen use. • There was a significant negative correlation between victim-hood and hallucinogens and depressants. There was no significant correlation between victim-hood and stimulants. • There was no significant correlation between bully-victim-hood and stimulants, hallucinogens or depressants.

<u>Hypothesis Three</u> This hypothesis concerned the personality correlates of both bullying and substance use. It was hypothesised that an increase in frequency of being a bully would be associated with increased frequency of substance use. That is, as the degree of bullying increases so too will the frequency of substance use.	There was a significant positive correlation between being a bully and use of depressants. There was no significant correlation between being a bully and stimulants or hallucinogens.
<u>Hypothesis Four</u> This hypothesis concerned the pattern of substance use amongst all groups. • Victims will be more likely to use depressants more than bullies, bully-victims or controls. • Victims will be more likely than bullies, bully-victims or controls to use substances on their own. • Victims will be more likely than bullies, bully-victims or controls to use substances to suppress negative emotion. • Bullies will be likely to use stimulants more than victims, bully-victims or controls. • Bullies will be more likely than victims, bully-victims or controls to use substances in peer groups. • Bullies will be more likely than victims, bully-victims or controls to use substances to 'fit in with friends'. • There will be no significant difference between bully-victims and victims, bullies or controls on frequency of substance use. • There will be no significant difference between bully-victims and victims, bullies or controls on the variable 'whom substances are taken with'	• Victims did not use depressants more than bullies, bully-victims or controls. • Victims were not more likely to use substances on their own. • Victims were more likely to use substances to suppress negative emotion. • Bullies were not more likely to use stimulants than victims, bully-victims or controls. • Bullies were not more likely to use substances in peer groups. • Bullies were more likely to use substances to fit in with friends and have a good time. • There was no significant difference between bully-victims and victims, bullies or controls on frequency of substance use. • There was no significant difference between bully-victims and victims, bullies or controls on the variable 'whom substances are taken with'

4.4 *Implications for Services*

One of the focuses of this study has been to raise the awareness of the links between bullying and substance use, and the implications for psychological health. The results suggest that being a victim of bullying is associated with poorer psychological health. Psychological distress is in turn associated with substance use. Being a bully appears to be correlated with use of depressants. In addition, bullies and victims appear to have clear differential reasons for substance use, although causal attributions cannot be determined from this study. The following section will consider implications for services in the areas of clinical management of young people who present with bullying and substance use issues, health education and prevention.

4.4.1 *Clinical Implications*

The clinical implications for services can be divided into assessment and intervention. Assessment may draw upon the finding that there appear to be links between bullying and substance use. Young people may present with either substance use problems or being a bully, and the implication is that presentation of one of these is likely to be associated with the other, even if not immediately apparent. It may be pertinent to ask at assessment if there are other problems such as bullying or substance use, when presented with one or the other problems. Awareness of this link should prompt clinicians to ask, since young people may not immediately volunteer this information, or may initially deny the occurrence of such problems.

Awareness of the different reasons for substance use may provide clinicians with an idea of the underlying reasons for substance use. For example, bullies state that they use substances to 'fit in' with peers, and victims use substances to 'block out negative feelings'. This awareness may direct clinical interventions to address the underlying feelings or desires which may encourage use of substances. Clinicians may work with victims on their self-esteem and management of negative affect such as depression and anxiety, using cognitive behavioural interventions and encouraging them to talk about their problems and feelings, thus avoiding the need to self-medicate their distress. Bullies may benefit from interventions directed at helping them to find ways of fitting in with peers other than by using substances. This may include social skills training and enhancement of

communication skills, or encouragement to join social groups or activities. The key implication of this finding is that there appear to be differential reasons for use, and thus determining the role young people play in the bullying situation may directly determine the type of clinical intervention required. Most importantly, differential modes of intervention are necessary; a global panacea of intervention would appear not to be effective.

In this current study it appears that bullies have high self-esteem although it is unclear whether bullying makes them feel good, and therefore becomes reinforcing, in which case clinicians may be encouraged to help bullies find other ways of feeling good about themselves and strengthening their self-esteem. This finding fits with previous research which suggested that bullies are thoughtful and able to recognise that bullying provides them with rewards both tangible and psychological (Sutton, 2001). Alternatively, bullies may not feel good about themselves because they bully, and they therefore self-medicate their distress by using substances, which has the dual action of making them feel better and boosting their self-esteem, and also helping them to fit in with a peer group. Either way, it appears imperative that bullies are helped to find alternative ways of feeling good about themselves, such as self-esteem and self-efficacy work, and more helpful ways of fitting in with a peer group, such as joining social activities or groups.

A final clinical implication is the development of a measure of substance use for this study, which determines type, frequency and pattern of use. This measure could be used with clinical populations since there are very few reliable or valid measures currently available.

4.4.2 *Educational Implications*

Educational strategies aimed at prevention currently promote a 'Just Say No' to drugs policy. The findings of this study suggest that a global policy may not be the most effective strategy since there exist differential reasons for substance use by bullies and victims, which logically require differential prevention strategies. 'Just Say No' does not address reasons for substance use, such as self-medication of distress or attempting to fit in with peers. In order to conduct effective prevention strategies education must be aimed at addressing alternative ways to alleviate distress and finding ways of fitting in with peers. This may include social skills training, provision of alternative social groups, and

educating young people about where to go to talk about their problems, such as the school counsellor and voluntary or statutory counselling services.

Schools may need to reconsider their policies on bullying. The current governmental proposal suggests that bullies are given three warnings before being excluded, and it is a legal requirement for all schools to have an anti-bullying policy. However, the wording of the policies of the schools involved in this study are focused on the negative, that is, preventing all forms of bullying among pupils. It might be more effective to have a policy that promotes positive behaviour such as pro-social skills, respect for others, and increased good behaviour.

In addition, teachers might benefit from training on how to talk to pupils, developing their own counselling and communication skills which would subsequently encourage pupils to talk about their problems; including bullying, peer pressure and substance use. Teachers may also receive education on what to look out for in pupils, such as symptoms of anxiety, depression and low self-esteem, thus identifying those young people at risk of substance use, since psychological distress appears to be correlated with substance use.

4.4.3 *Theoretical Implications*

The findings of this study have implications for the self-medication hypothesis (Khantzian, 1985) in that it would appear that bullies and those with high psychological distress self-medicate emotions. Bullies appear to use substances to suppress feelings of aggression. It would also appear that substances are used selectively in that bullies use depressants and not hallucinogens or stimulants. However, it would appear that the self-medication hypothesis cannot be supported by the findings related to victims and bully-victims. They do not appear to cope primarily with psychological distress by self-medicating, although victims that do use substances use to alleviate negative emotion, which may be resultant from being a victim of bullying. It may be that the self-medication hypothesis relates predominantly to adults, and adolescents have not yet associated substances with alleviation of distress. They may also use parental support mechanisms to cope with distress.

In addition, the findings of this study have implications for theories of peer pressure and peer conformity (Santor, Messervey, Kusumakar, 2000). Peer conformity has been found to be a better predictor of risk behaviour than peer pressure. This study found that bullies use substances to 'fit in with friends'; this would suggest that bullies use substances in order to conform to the norms of a particular group, and that it is not necessarily peer pressure, but choice which influences the decision to use substances. This fits with Denscombe and Drucquer's (1999), theory that young people make a determined choice to use substances and thereby select a peer group with whom to belong to.

4.5 *Limitations of Study*

As with all research studies, various limitations to the design of the study have been identified. Some of these may also provide possible explanations for some of the unexpected results. The following section provides a discussion of limitations of the present study.

4.5.1 *Sample*

Schools in this study clearly reflect a self-selected sample, and this has to be borne in mind when the results are analysed. It is possible that those schools with a higher incidence of bullying and substance use would have been less likely to participate in this study, preferring to keep their problems hidden for fear of recrimination from the educational authorities. Certainly this was one concern raised by some schools when they declined to participate. It was attempted to overcome this concern by assuring schools that the study was confidential and findings would not be identified with a particular school, nor would the findings be disclosed to the educational authorities. Previous studies have used different selection procedures, such as including all schools within a particular locality or region, and so would have possibly included a more diverse participant group.

Another factor not accounted for in this study was the influence of individual school philosophies and policies regarding bullying and substance use. Taking account of this may have facilitated understanding of the influence of such factors, for example having an anti-bullying policy, or philosophy of respect for others may influence the incidence of bullying.

In addition the participants were taken from a cross sectional sample, rather than a longitudinal study which may have clarified the cause-consequence controversy. It may be possible using a longitudinal sample to identify whether participants were self-medicating psychological distress ensuing from the experience of bullying, and indeed whether psychological distress is a consequence or causal factor in bullying.

4.5.2 *Measures*

It is recognised that this study used a measure of substance use which was not standardised. The fact that the results pertaining to this measure, in this study are consistent with previous findings is reassuring. However, it is recognised that caution should be exercised in interpretation of the results, and that comparisons with other studies should be made with careful consideration.

In addition, the validity of self-report may be questioned. It is possible that participants may have been concerned that teachers may have access to their responses and thus under-report both incidences of bullying and use of substances. Also participants may be concerned with presenting an alternative self-image to peers which may include over-estimating their use of substances in order to propagate a 'cool' image. It was attempted to overcome this by assuring confidentiality, and ensuring that questionnaires were completed in exam-like conditions whereby peers would not be permitted to see other participants' responses. In addition, the questionnaire was made as user-friendly as possible, using colourful paper and computer generated images of young people and substances. The success of this approach may be reflected in the high response rate achieved.

Self-report is a common method used in this type of study. Denscombe and Aubrook (1992) consider the implications and reliability of such methods. They found that participants consider questionnaire completion as 'just another piece of schoolwork', and most enjoyed completing questionnaires, although some felt that some questions were too personal and intrusive. This raises an interesting ethical question that people may feel that they have been treated as an object of measurement without concern for their privacy. In this study participants were assured that completion of the questionnaire was not compulsory, and if the questionnaire raised issues for them they could contact one of the services the researcher advised about, such as school counsellor, independent agency, or phone line.

Commenting on self-report as a valid measure Denscombe and Aubrook (1992) found that self-report correlated highly with other methods such as teacher and peer reports. In addition, when compared with questionnaires which used a lie question, such as a use of a fictitious drug, no more than 1% reported using a fictitious drug, so it can be concluded

that self-report is a reliable method of investigation. Denscombe and Aubrook suggest that over-reporting of drug use is seldom a problem, and the effects of under-reporting are frequently small.

4.5.3 *Methodological Limitations*

Completion of the questionnaires for some participants, that is, those within the lower bands, required assistance from a teaching assistant to read and complete the questionnaires. Although this approach permitted inclusion of pupils within all bands, this could have biased responses, in that pupils may have felt less willing or able to accurately report their level of involvement in bullying and use of substances for fear of recriminations. Again both staff and pupils were assured that responses were confidential, and that no action would be taken as a result of their responses.

A further methodological limitation included the collapsing of data into subgroups. Exploration of use of substances was categorised into subgroups of types such as stimulants, depressants and hallucinogens. Collapsing data may have obscured some findings related to specific drugs, such as alcohol. In addition, collapsing data and including alcohol, a commonly used substance, in with other depressants, may skew the data in favour of depressants, and thus distort any significant differences on use of other substances.

4.6 *Directions for Future Research*

As with all research, the findings of this study lead to new questions which remain to be answered. The following is a discussion of proposed directions for future research.

Results from the current study have suggested that a high level of psychological distress is associated with use of stimulants and hallucinogens. This finding provides evidence for the self-medication hypothesis (Khantzian, 1985). However, causal attributions cannot be made from this study, thus future research may conduct longitudinal studies whereby cause and consequence may be established.

Longitudinal studies may also be helpful in establishing how victims and bully-victims cope with psychological distress, since they do not appear to use substances commonly to self-medicate their distress, and also whether victims acquire such status because they are stand out in some way due to psychological difficulties. It may also be helpful to explore whether substance use predates bullying using longitudinal studies

The current study suggested that use of substances by bullies was associated with the desire to 'fit in' with peers. This provides evidence for previous literature on peer conformity, which suggests conformity is better able to predict risk behaviour than peer pressure. This finding concurs with previous studies that suggested that young people are not as affected by peer pressure as is commonly believed and that factors such as choice, identity, and conformity are associated with cigarette smoking. It is recommended that future research use qualitative measures to establish whether use of illicit substances and alcohol follows a similar pattern to that of smoking, whereby identity and choice appear to play considerable roles.

Qualitative research, such as use of focus groups with young people of different bullying status, may clarify further what motivates them to use substances. This may provide greater in depth detail about how the self-medication hypothesis, peer pressure and peer conformity influence substance use.

Finally, the current study suggested that there is a link between bullying and substance use. Future research into *how* they are linked would be helpful This may include administering

personality questionnaires, such as the Junior Eysenck Personality Questionnaire. Traits such as Neuroticism, Psychoticism, Introversion and Extroversion may link these two problems. Further research exploring this link would be helpful in elucidating whether they are part of the same underlying theoretical construct such as anti-social personality disorder or conduct disorder. Use of clinical samples in longitudinal studies would be of value.

4.7 *Conclusions*

The findings of this study are consistent with those reported by previous studies, suggesting that being a victim of bullying has considerable negative effects on psychological health, that both the self-medication hypothesis and the literature on peer conformity may partially explain the link between substance use and bullying. In addition this study found that bullies and victims have unique identifiable patterns of substance use, expressing differential reasons for substance use. Bully-victims do not appear to have an identifiable pattern of substance use.

The positive contribution of this study is its provision of new information regarding varying patterns of substance use according to bullying status. This finding has implications for both clinical and educational services, in that, at assessment awareness of the links between bullying and substance use should prompt clinicians to ask about the coexistence of these problems. In addition both clinical and educational services require differential strategies when intervening, since the reasons for substance use may differ.

This research has added to the body of knowledge concerning the experience of young people of both bullying and substance use, and its implications for psychological health. It is hoped that information gained through this study would have implications for the theoretical understanding of bullying and substance use. That it would encourage services to consider the association of substance use and bullying when working in clinical settings with young people, and would also influence health education strategies both in clinical and educational services.

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Appendix 1 Questionnaire

Substance Use and Bullying Questionnaire

This questionnaire is confidential and anonymous. This means that no one (other than the researcher, Vicki) will know what you have written, or who you are. Please don't write your name on the questionnaire. Try to answer all the questions as honestly as possible. There are no right or wrong answers.

Age_____

Year Group_____

You will find questions in this booklet about your life in school. There are several answers next to each question. Each answer has a box in front of it. Like this:

1. **How do you like school?**
   - ❑ I dislike school very much
   - ❑ I dislike school
   - ❑ I neither like nor dislike
   - ❑ I like school I like school very much

Answer the question by marking an X in the box next to the answer that best describes how you feel about school. If you really dislike school, mark an X in the box next to "I dislike school very much". If you really like school, put an X in the box next to "I like school very much", and so on. Only mark <u>one of the boxes</u>. Try to keep the mark inside of the box. <u>Now put an X in the box next to the answer that best describes how you feel about school.</u> ✷

If you mark the wrong box, you can change your answer like this: make the wrong box
completely black: ■ Then put an X in the box where you want your answer to be.

Don't put your name on this booklet. No one will know how you have answered these questions. But it is important that you answer carefully and how you really feel. Sometimes it is hard to decide what to answer. Then just answer how you think it is. If you have questions, raise your hand.

Most of the questions are about **your life in school in the past couple of months, that is, the period from start of school after Summer/Christmas vacation until now**. So when you answer, you should think of how it has been during the past 2 or 3 months and **not only how it is just now.**
Now you can answer the next question:

2. **Are you a boy or a girl?**
   - ❑ girl
   - ❑ boy

3. **How many good friends do you have in your class(es)?**

- ❑ none
- ❑ I have 1 good friend in my class(es)
- ❑ I have 2 or 3 good friends in my class(es)
- ❑ I have 4 or 5 good friend in my class(es)
- ❑ I have 6 or more good friends in my class(es)

bullying drugs wot's the score ?

ABOUT BEING BULLIED BY OTHER STUDENTS

Here are some questions about being bullied by other students. First we define or explain the word bullying. We say <u>a student is being bullied when another student, or several other students</u>

- say mean and hurtful things or make fun of him or her or call him or her mean and hurtful names
- completely ignore or exclude him or her from their group of friends or leave him or her out of things on purpose
- hit, kick, push, shove around, or lock him or her inside a room
- tell lies or spread false rumors about him or her or send mean notes and try to make other students dislike him or her
- and other hurtful things like that.

When we talk about bullying, these things happen repeatedly, and it is <u>difficult for the student being bullied to defend himself or herself</u>. We also call it bullying, when a student is teased repeatedly in a mean and hurtful way.
But we <u>don't call it bullying</u> when the teasing is done in a friendly and playful way. Also, it is <u>not bullying</u> when two students of about equal strength or power argue or fight.

4. How often have you been bullied at school in the past couple of months?

- ❑ I haven't been bullied at school in the past couple of months
- ❑ it has only happened once or twice
- ❑ 2 or 3 times a month
- ❑ about once a week
- ❑ several times a week

bullying
wot's the score?

Have you been bullied at school in the past couple of months in one or more of the following ways? Please answer all questions.

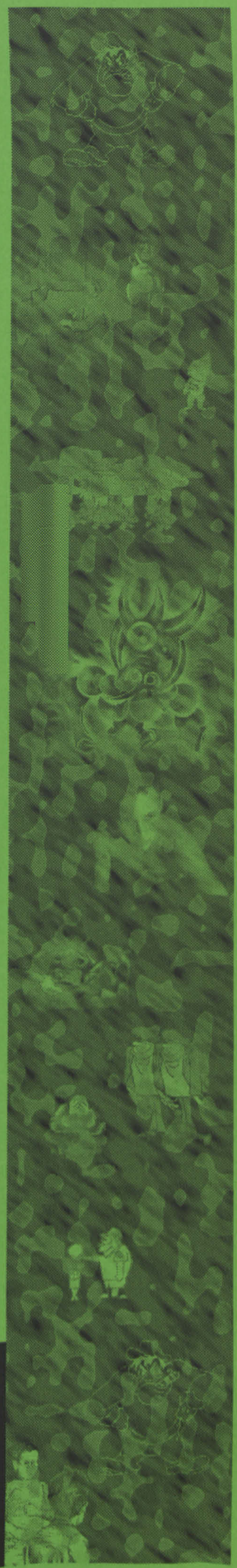
5. **I was called mean names, was made fun of, or teased in a hurtful way**
   - ❑ it hasn't happened to me in the past couple of months
   - ❑ only once or twice
   - ❑ 2 or 3 times a month
   - ❑ about once a week
   - ❑ several times a week

6. **Other students left me out of things on purpose, excluded me from their group of friends, or completely ignored me**
   - ❑ it hasn't happened to me in the past couple of months
   - ❑ only once or twice
   - ❑ 2 or 3 times a month
   - ❑ about once a week
   - ❑ several times a week

7. **I was hit, kicked, pushed, shovedaround, or locked indoors**
   - ❑ it hasn't happened to me in the past couple of months
   - ❑ only once or twice
   - ❑ 2 or 3 times a month
   - ❑ about once a week
   - ❑ several times a week

Have you been bullied at school in the past couple of months in one or more of the following ways? Please answer all questions.

8. **Other students told lies or spread false rumors about me and tried to make others dislike me**
   - ❑ it hasn't happened to me in the past couple of months
   - ❑ only once or twice
   - ❑ 2 or 3 times a month
   - ❑ about once a week
   - ❑ several times a week



bullying wot's the score?

9. **I had money or other things taken away from me or damaged**
   - ❑ it hasn't happened to me in the past couple of months
   - ❑ only once or twice
   - ❑ 2 or 3 times a month
   - ❑ about once a week
   - ❑ several times a week

10. **I was threatened or forced to do things I didn't want to do**
   - ❑ it hasn't happened to me in the past couple of months
   - ❑ only once or twice
   - ❑ 2 or 3 times a month
   - ❑ about once a week
   - ❑ several times a week

11. **I was bullied with mean names or comments about my race or colour**
   - ❑ it hasn't happened to me in the past couple of months
   - ❑ only once or twice
   - ❑ 2 or 3 times a month
   - ❑ about once a week
   - ❑ several times a week

12. **I was bullied with mean names, comments, or gestures with a sexual meaning**
   - ❑ it hasn't happened to me in the past couple of months
   - ❑ only once or twice
   - ❑ 2 or 3 times a month
   - ❑ about once a week
   - ❑ several times a week

bullying

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13. **I was bullied in another way**

- ❑ it hasn't happened to me in the past couple of months
- ❑ only once or twice
- ❑ 2 or 3 times a month
- ❑ about once a week
- ❑ several times a week

In this case, please write in what way: _____

_____

14. **In which class(es) is the student or students who bully you?**

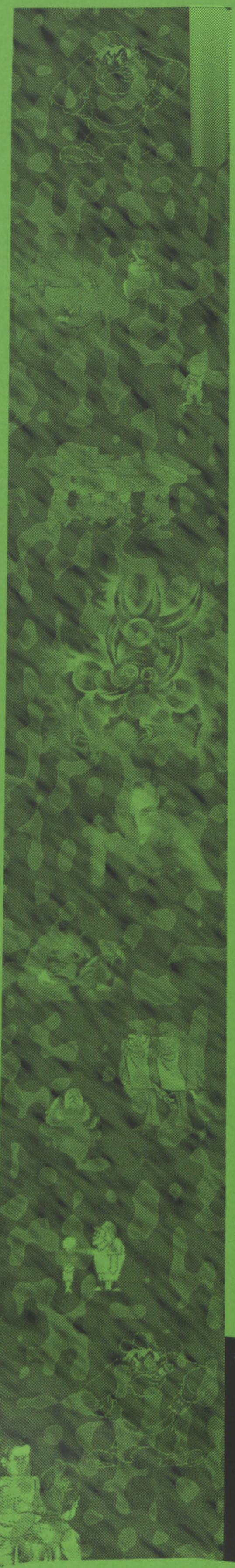
- ❑ I haven't been bullied at school in the past couple of months
- ❑ in my class
- ❑ in a different class but same grade (year)
- ❑ in a higher grade
- ❑ in a lower grade in different grades

15. **Have you been bullied by boys or girls?**

- ❑ I haven't been bullied at school in the past couple of months
- ❑ mainly by 1 girl
- ❑ by several girls
- ❑ mainly by 1 boy
- ❑ by several boys
- ❑ by both boys and girls

16. **By how many students have you usually been bullied?**

- ❑ I haven't been bullied at school in the past couple of months
- ❑ mainly by 1 student
- ❑ by a group of 2-3 students
- ❑ by a group of 4 - 9 students
- ❑ by a group of more that 9 students
- ❑ by several different students or groups of students



17. How long has the bullying lasted?

- ❑ I haven't been bullied at school in the past couple of months
- ❑ it lasted one or two weeks
- ❑ it lasted about a month
- ❑ it has lasted about 6 months
- ❑ it has lasted about a year
- ❑ it has gone on for several years

18. Where have you been bullied ?

- ❑ I haven't been bullied in the past couple of months (if you place an X in this box, skip to question 19)
- ❑ I have been bullied in one or more of the following places in the past couple of months (continue below):

Continue here if you have been bullied in the past couple of months:

Have you been bullied

18a. on the playground/athletic field (during recess or break times)?

- ❑ no
- ❑ yes

18b. in the hallways/ stairwells?

- ❑ no
- ❑ yes

Have you been bullied

18c. in class (with teacher present)?

- ❑ no
- ❑ yes

18d. in the classroom (with teacher absent)?

- ❑ no
- ❑ yes

18e. in the bathroom?

- ❑ no
- ❑ yes

bullying wot's the score ?

18f. in gym class or the gym locker room/ shower?

- ❑ no
- ❑ yes

18g. in the lunch room?

- ❑ no
- ❑ yes

18h. on the way to and from school?

- ❑ no
- ❑ yes

18i. at the school bus stop?

- ❑ no
- ❑ yes

Have you been bullied

18j. on the school bus?

- ❑ no
- ❑ yes

18k. somewhere else in school?

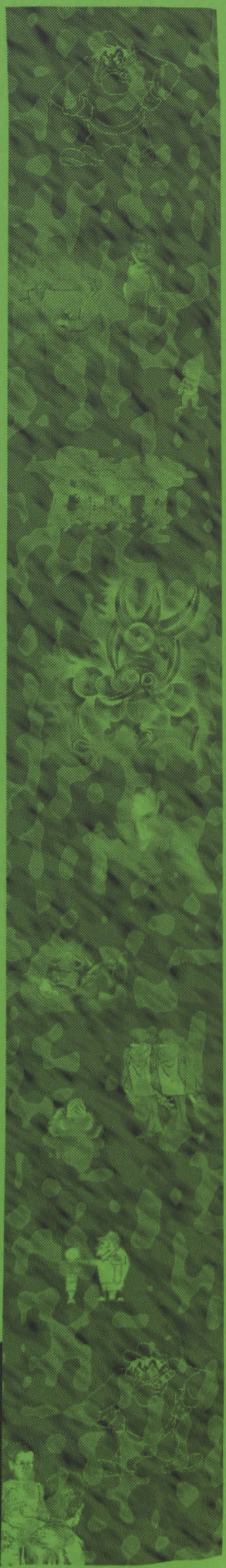
- ❑ no
- ❑ yes

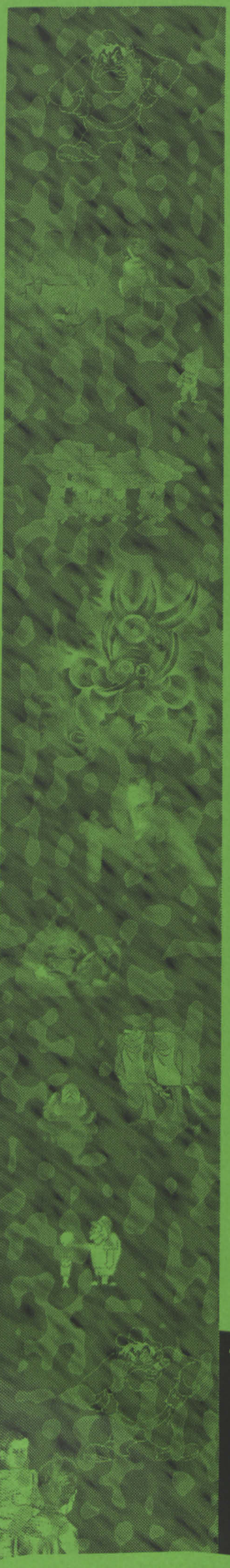
In this case, please write where: _____

_____

19. **Have you told anyone that you have been bullied at school in the past couple of months?**

- ❑ I haven't been bullied at school in the past couple of months (if you place an X in this box , skip to question 20)
- ❑ I have been bullied but I have not told anyone (if you place an X in this box, skip to question 20)
- ❑ I have been bullied and I have told somebody about it (continue below)





Have you told (that you have been bullied)

19a. your class (home room) teacher?
- ❑ no
- ❑ yes

19b. another adult at school (a different teacher, the principal/ head master, the school nurse, the custodian/ school caretaker, the school psychologist/ mental health professional etc)?
- ❑ no
- ❑ yes

19c. your parent(s)/guardian(s)?
- ❑ no
- ❑ yes

19d. your brother(s) or sister(s)?
- ❑ no
- ❑ yes

Have you told (that you have been bullied)

19e. your friend(s)?
- ❑ no
- ❑ yes

19f. somebody else?
- ❑ no
- ❑ yes

In this case, please write who: _____

_____

20. **How often do the teachers or other adults at school try to put a stop to it when a student is being bullied at school?**
- ❑ almost never
- ❑ once in a while
- ❑ sometimes
- ❑ often
- ❑ almost always

bullying wot's the score?

21. **How often do other students try to put a stop to it when a student is being bullied at school?**

- ❑ almost never
- ❑ once in a while
- ❑ sometimes
- ❑ often
- ❑ almost always

22. **Has any adult at home contacted the school to try to stop *your being bullied at school in the past couple of months?***

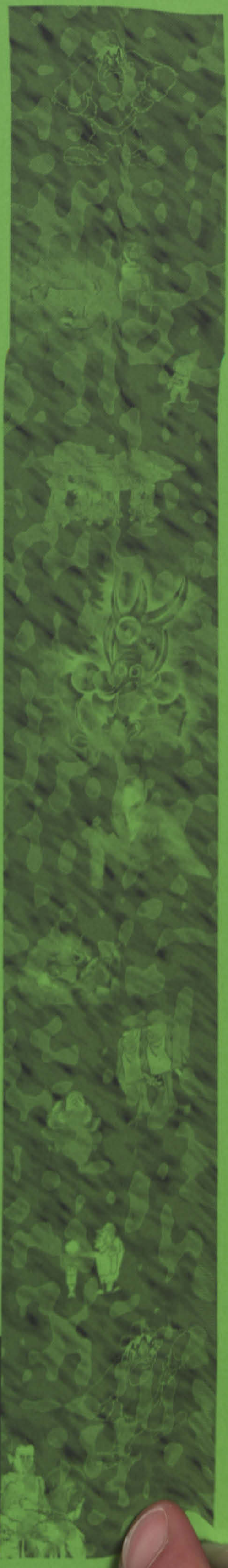
- ❑ I haven't been bullied at school in the past couple of months
- ❑ no, they haven't contacted the school
- ❑ yes, they have contacted the school once
- ❑ yes, they have contacted the school several times

23. **When you see a student your age being bullied at school, what do you feel or think?**

- ❑ that is probably what he or she deserves
- ❑ I don't feel much
- ❑ I feel a bit sorry for him or her
- ❑ I feel sorry for him or her and want to help him or her

24. **How often have you taken part in bullying another student(s) at school the past couple of months?**

- ❑ I haven 't bullied another student(s) at school in the past couple of months
- ❑ it has only happened once or twice
- ❑ 2 or 3 times a month
- ❑ about once a week
- ❑ several times a week



Have you bullied another student(s) at school in the past couple of months in one or more of the following ways? Please answer all questions.

25. **I called another student(s) mean names, made fun of or teased him or her in a hurtful way**
- ❑ it hasn't happened in the past couple of months
- ❑ it has only happened once or twice
- ❑ 2 or 3 times a month
- ❑ about once a week
- ❑ several times a week

26. **I kept him or her out of things on purpose, excluded him or her from my group of friends or completely ignored him or her**
- ❑ it hasn't happened in the past couple of months
- ❑ it has only happened once or twice
- ❑ 2 or 3 times a month
- ❑ about once a week
- ❑ several times a week

27. **I hit, kicked, pushed and shoved him or her around or locked him or her indoors**
- ❑ it hasn't happened in the past couple of months
- ❑ it has only happened once or twice
- ❑ 2 or 3 times a month
- ❑ about once a week
- ❑ several times a week

28. **I spread false rumors about him or her and tried to make others dislike him or her**
- ❑ it hasn't happened in the past couple of months
- ❑ it has only happened once or twice
- ❑ 2 or 3 times a month
- ❑ about once a week
- ❑ several times a week

bullying

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29. **I took money or other things from him or her or damaged his or her belongings**

- ❑ it hasn't happened in the past couple of months
- ❑ it has only happened once or twice
- ❑ 2 or 3 times a month
- ❑ about once a week
- ❑ several times a week

30. **I threatened or forced him or her to do things he or she didn't want to do**

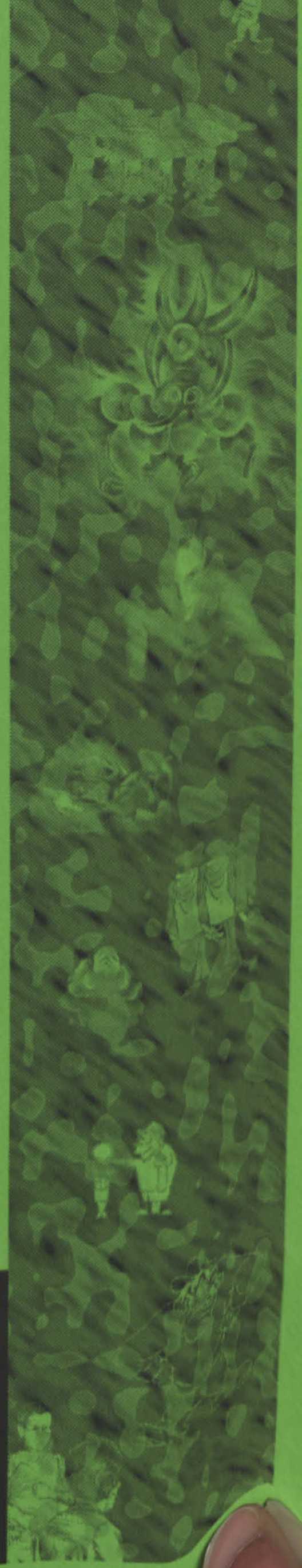
- ❑ it hasn't happened in the past couple of months
- ❑ it has only happened once or twice
- ❑ 2 or 3 times a month
- ❑ about once a week
- ❑ several times a week

31. **I bullied him or her with mean names or comments about his or her race or colour**

- ❑ it hasn't happened in the past couple of months
- ❑ it has only happened once or twice
- ❑ 2 or 3 times a month
- ❑ about once a week
- ❑ several times a week

32. **I bullied him or her with mean names, comments, or gestures with a sexual meaning**

- ❑ it hasn't happened in the past couple of months
- ❑ it has only happened once or twice
- ❑ 2 or 3 times a month
- ❑ about once a week
- ❑ several times a week



bullying

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33. **I bullied him or her in another way**

- ❑ it hasn't happened in the past couple of months
- ❑ it has only happened once or twice
- ❑ 2 or 3 times a month
- ❑ about once a week
- ❑ several times a week

In this case, please write in what way: _____

_____

34. **Has your class (home room) teacher or any other teacher talked with you about your bullying other students at school in the past couple of months?**

- ❑ I haven't bullied other student(s) at school in the past couple of months
- ❑ no, they haven't talked with me about it
- ❑ yes, the have talked with me about it once
- ❑ yes, they have talked with me about it several times

35. **Has any adult at home talked with you about your bullying other students at school in the past couple of months?**

- ❑ I haven't bullied other student(s) at school in the past couple of months
- ❑ no, they haven't talked with me about it
- ❑ yes, the have talked with me about it once
- ❑ yes, they have talked with me about it several times

36. **Do you think you could join in bullying a student whom you didn't like?**

- ❑ yes
- ❑ yes, maybe
- ❑ I don't know
- ❑ no, I don't think so
- ❑ no definitely
- ❑ no

bullying

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37. **How do you usually react if you see or understand that a student your age is being bullied by other students?**

- ❑ I have never noticed that students my age have been bullied
- ❑ I take part in the bullying
- ❑ I don't do anything, but I think the bullying is OK
- ❑ I just watch what goes on
- ❑ I don't do anything, but I think I ought to help the bullied student
- ❑ I try to help the bullied student in one way or another

38. **How often are you afraid of being bullied by other students in your school?**

- ❑ never
- ❑ not often
- ❑ sometimes
- ❑ fairly often
- ❑ often
- ❑ very often

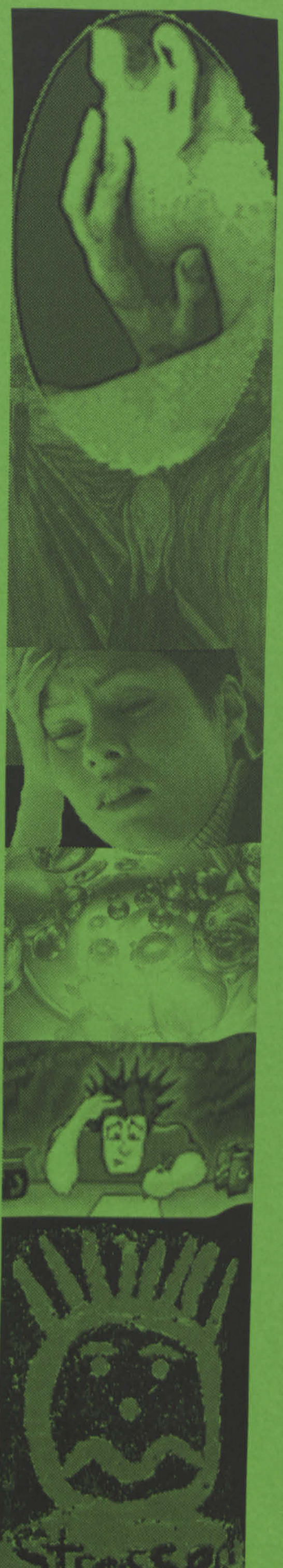
39. **Overall, how much do think your class (home room) teacher has done to counteract bullying in the past couple of months?**

- ❑ little or nothing
- ❑ fairly little
- ❑ somewhat
- ❑ a good deal
- ❑ much

Directions: The statements below refer to how you have felt over the past week. There are no right answers but it is important to say how you have felt. Please answer as honestly as you can. Put a tick in the appropriate box. Thank you.

		Never	Sometimes	Often	Always
40.	I look forward to things as much as I used to	❑	❑	❑	❑
41.	I sleep very well	❑	❑	❑	❑
42.	I feel like crying	❑	❑	❑	❑
43.	I like to go out	❑	❑	❑	❑
44.	I feel like running away	❑	❑	❑	❑
45.	I get stomach aches	❑	❑	❑	❑
46.	I have lots of energy	❑	❑	❑	❑
47.	I enjoy my food	❑	❑	❑	❑
49.	I can stick up for myself	❑	❑	❑	❑
46.	I think life isn't worth living	❑	❑	❑	❑
47.	I am good at things I do	❑	❑	❑	❑
48.	I enjoy the things I do as much as I used to	❑	❑	❑	❑
49.	I like talking with my family	❑	❑	❑	❑

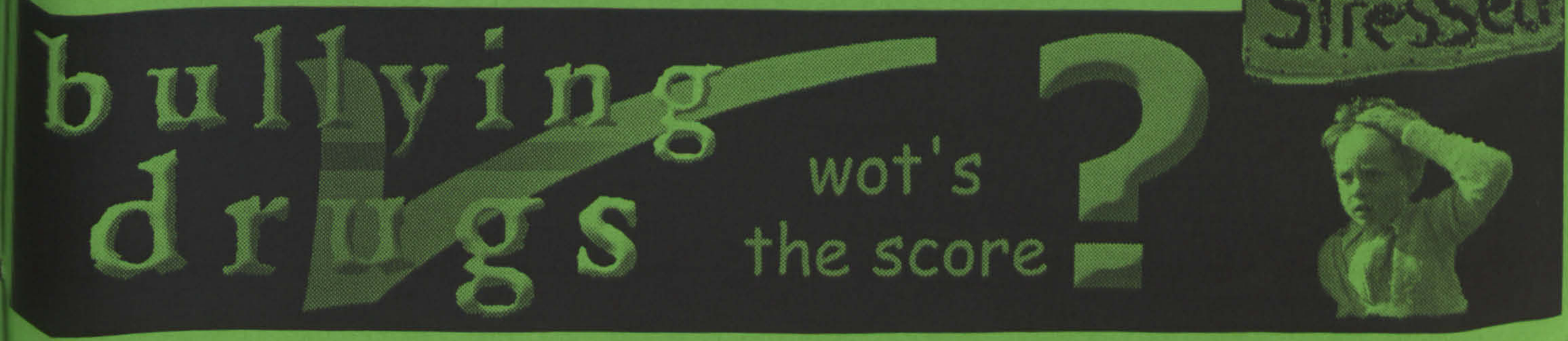
		Never	Sometimes	Often	Always
50.	I have horrible dreams	❑	❑	❑	❑
51.	I feel very lonely	❑	❑	❑	❑
52.	I am easily cheered up	❑	❑	❑	❑
53.	I feel so sad I can hardly stand it	❑	❑	❑	❑
54.	I feel very bored	❑	❑	❑	❑
55.	I worry about things	❑	❑	❑	❑
56.	I am scared of the dark	❑	❑	❑	❑
57.	When I have a problem, I get a funny feeling in my stomach	❑	❑	❑	❑
58.	I feel afraid	❑	❑	❑	❑
59.	I would feel afraid of being on my own at home	❑	❑	❑	❑
60.	I feel scared when I have to take a test	❑	❑	❑	❑
61.	I feel afraid if I have to use public toilets or bathrooms	❑	❑	❑	❑
62.	I worry about being away from my parents	❑	❑	❑	❑
63.	I feel afraid that I will make a fool of myself in front of people	❑	❑	❑	❑



bullying drugs wot's the score?

		Never	Sometimes	Often	Always	
64.	I worry that I will do badly at my school work	❑	❑	❑	❑	75
65.	I am popular amongst other kids of my own age	❑	❑	❑	❑	76
66.	I worry that something awful will happen to someone in my family	❑	❑	❑	❑	77
67.	I suddenly feel as if I can't breathe when there is no reason for this	❑	❑	❑	❑	78
68.	I have to keep checking that I have done things right (like the switch is off, or the door is locked)	❑	❑	❑	❑	79
						80
69.	I feel scared if I have to sleep on my own	❑	❑	❑	❑	81
70.	I have trouble going to school in the mornings because I feel nervous or afraid	❑	❑	❑	❑	82
71.	I am good at sports	❑	❑	❑	❑	
						83
72.	I am scared of dogs	❑	❑	❑	❑	
						84
73.	I can't seem to get bad or silly thoughts out of my head	❑	❑	❑	❑	
74.	When I have a problem, my heart beats really fast	❑	❑	❑	❑	85
						86

	Never	Sometimes	Often	Always
75. I suddenly start to tremble or shake when there is no reason for this	❑	❑	❑	❑
76. I worry that something bad will happen to me	❑	❑	❑	❑
77. I am scared of going to the doctor or dentist	❑	❑	❑	❑
78. When I have a problem, I feel shaky	❑	❑	❑	❑
79. I am scared of being in high places or lifts (elevators)	❑	❑	❑	❑
80. I am a good person	❑	❑	❑	❑
81. I have to think of special thoughts (like numbers or words) to stop bad things from happening	❑	❑	❑	❑
82. I feel scared if I have to travel in the car, or on a bus or train	❑	❑	❑	❑
83. I worry what other people think of me	❑	❑	❑	❑
84. I am afraid of being in crowded places (like shopping centres, the movies, buses, busy playgrounds)	❑	❑	❑	❑
85. I feel happy	❑	❑	❑	❑
86. All of a sudden I feel really scared for no reason at all	❑	❑	❑	❑



		Never	Sometimes	Often	Always
87.	I am scared of insects or spiders	❑	❑	❑	❑
88.	I suddenly become dizzy or faint when there is no reason for this	❑	❑	❑	❑
89.	I feel afraid if I have to talk in front of my class	❑	❑	❑	❑
90.	My heart suddenly starts to beat too quickly for no reason	❑	❑	❑	❑
91.	I worry that I will suddenly get a scared feeling when there is nothing to be afraid of	❑	❑	❑	❑
92.	I like myself	❑	❑	❑	❑
93.	I am afraid of being in small closed places, like tunnels or small rooms	❑	❑	❑	❑
94.	I have to do some things over and over again (like washing my hands, cleaning or putting things in a certain order)	❑	❑	❑	❑
95.	I get bothered by bad or silly thoughts or pictures in my mind	❑	❑	❑	❑
96.	I have to do some things in just the right way to stop bad things happening	❑	❑	❑	❑
97.	I am proud of my school work	❑	❑	❑	❑

Always ❑

98. I would feel scared if I had to stay away from home overnight

Never ❑ Sometimes ❑ Often ❑ Always ❑

bullying drugs wot's the score ?

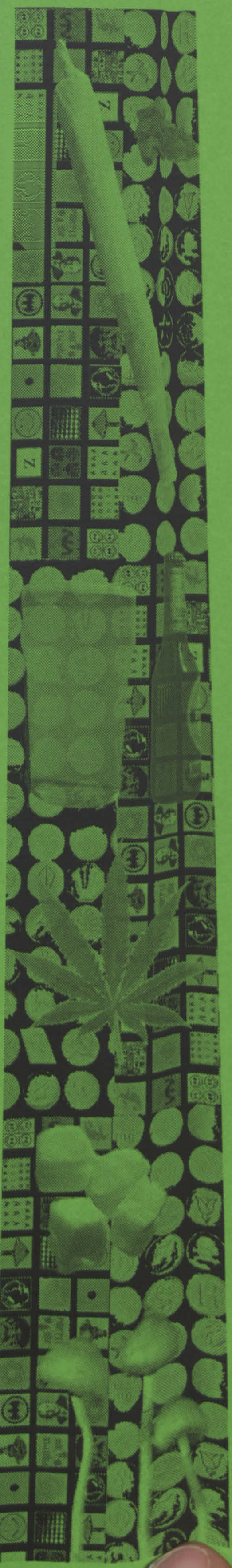
The following is a list of ten statements that describe how you feel about yourself Choose your answer from the four options `Strongly Agree', Agree 'Disagree', or 'Strongly Disagree' depending on how you feel about each of the statements. Do not take too long over any one question.

	Strongly Agree	Agree	Disagree	Strongly disagree
100. On the whole I am satisfied with myself.	❑	❑	❑	❑
101. At times I think that I am no good at all.	❑	❑	❑	❑
102. I feel that I have a number of good qualities.	❑	❑	❑	❑
103. I am able to do things as well as most other people.	❑	❑	❑	❑
104. I feel that I do not have much to be proud of.	❑	❑	❑	❑
105. I certainly feel useless at times.	❑	❑	❑	❑
106. I feel that I am a person of worth, at least on an equal lane with others.	❑	❑	❑	❑
107. I wish I could have more respect for myself.	❑	❑	❑	❑
108. All in all, I feel that I am a failure.	❑	❑	❑	❑
109. I take a positive attitude toward myself.	❑	❑	❑	❑

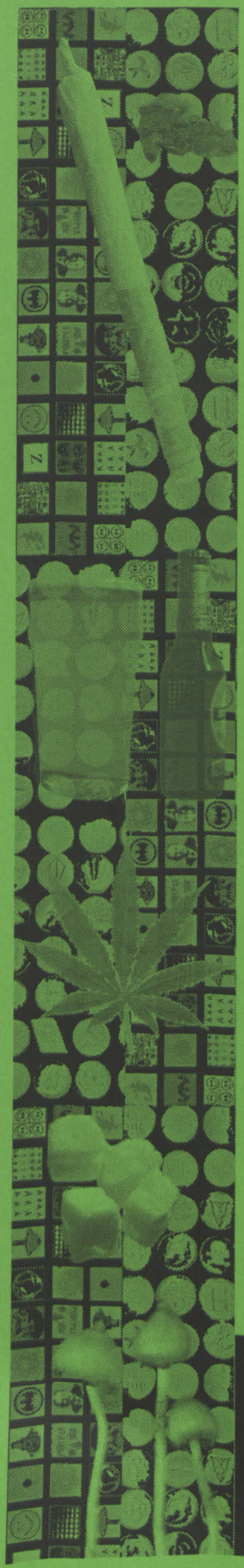
This section is about drugs that you might have tried, or use regularly. Remember that your answers are completely confidential. No one will know how you have responded. Please try to answer these questions as honestly as possible.

110. How many times in your life (if any) have you ever tried or used any of the following drugs, including alcohol?

	Number of times / occasions						
	0	1-2	3-5	6-9	10-19	20-39	40+
a) Alcohol	❑	❑	❑	❑	❑	❑	❑
b) Cannabis (dope, grass, hash)	❑	❑	❑	❑	❑	❑	❑
c) Solvents (gas, glue)	❑	❑	❑	❑	❑	❑	❑
d) Ecstasy (E)	❑	❑	❑	❑	❑	❑	❑
e) Amphetamine (speed, whiz)	❑	❑	❑	❑	❑	❑	❑
f) Poppers (Gold, rush)	❑	❑	❑	❑	❑	❑	❑
g) LSD (Acid)	❑	❑	❑	❑	❑	❑	❑
h) Crack (Rocks)	❑	❑	❑	❑	❑	❑	❑
i) Cocaine (charlie)	❑	❑	❑	❑	❑	❑	❑
j) Heroin (smack, brown, H)	❑	❑	❑	❑	❑	❑	❑
k) Magic mushrooms	❑	❑	❑	❑	❑	❑	❑
l) Prescription drugs e.g Valium (jellies), opiates (temazepam, DF's),	❑	❑	❑	❑	❑	❑	❑
m) Anabolic steroids	❑	❑	❑	❑	❑	❑	❑



drugs ? wot's the score



111. How old were you when you tried any of the following drugs (if ever)?

	Never	11 years old or less	12 years	13 years	14 years	15 years	16 years
a) Alcohol	❑	❑	❑	❑	❑	❑	❑
b) Cannabis (dope, grass, hash)	❑	❑	❑	❑	❑	❑	❑
c) Solvents (gas, glue)	❑	❑	❑	❑	❑	❑	❑
d) Ecstasy (E)	❑	❑	❑	❑	❑	❑	❑
e) Amphetamine (speed, whiz)	❑	❑	❑	❑	❑	❑	❑
f) Poppers (Gold, rush)	❑	❑	❑	❑	❑	❑	❑
g) LSD (Acid)	❑	❑	❑	❑	❑	❑	❑
h) Crack (Rocks)	❑	❑	❑	❑	❑	❑	❑
i) Cocaine (charlie)	❑	❑	❑	❑	❑	❑	❑
j) Heroin (smack, brown, H)	❑	❑	❑	❑	❑	❑	❑
k) Magic mushrooms	❑	❑	❑	❑	❑	❑	❑
l) Prescription drugs e.g Valium (jellies), opiates ( ),	❑	❑	❑	❑	❑	❑	❑
m) Anabolic steroids	❑	❑	❑	❑	❑	❑	❑

112. In the last year, how often have you used the following drugs?

	Never or less	Monthly	Few times a month	Weekly	Daily+
a) Alcohol	❑	❑	❑	❑	❑
b) Cannabis (dope, grass, hash)	❑	❑	❑	❑	❑
c) Solvents (gas, glue)	❑	❑	❑	❑	❑
d) Ecstasy (E)	❑	❑	❑	❑	❑
e) Amphetamine (speed, whiz)	❑	❑	❑	❑	❑
f) Poppers (Gold, rush)	❑	❑	❑	❑	❑
g) LSD (Acid)	❑	❑	❑	❑	❑
h) Crack (Rocks)	❑	❑	❑	❑	❑
i) Cocaine (charlie)	❑	❑	❑	❑	❑
j) Heroin (smack, brown, H)	❑	❑	❑	❑	❑
k) Magic mushrooms	❑	❑	❑	❑	❑
l) Prescription drugs e.g Valium (jellies), opiates ( ),	❑	❑	❑	❑	❑
m) Anabolic steroids	❑	❑	❑	❑	❑

drugs wot's the score?

113. How much do you spend on drugs/alcohol per month?

Nothing ❑ £5 or less ❑ £10 ❑ £15 ❑ £20 or more ❑ Don't know ❑

114. Why do you take drugs/alcohol? (tick as many boxes as necessary)

a) To see what it's like (e.g. curiosity) ❑
b) For fun/ to have a good time ❑
c) To fit in with friends ❑
d) To block out feelings e.g. sadness, worrying ❑
e) To block out bad things that have happened ❑
f) For something to do ❑
g) To make me feel more confident ❑

h) Other reason (please say).....

115. Who do you take drugs/alcohol with? (tick as many boxes as necessary)

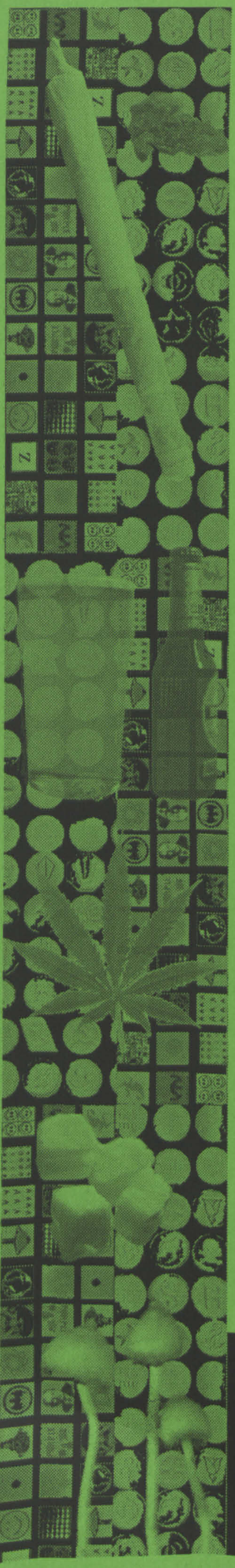
a) 1 or two friends ❑
b) A group of friends ❑
c) On my own ❑
d) Other person (s) ❑

116. Where do you take your drugs/alcohol?(tick as many boxes as necessary)

a) School ❑
b) Home ❑
c) Friend's house ❑
d) Parties / clubs / pubs ❑
e) The park ❑

f) Other (please say).....

drugs ? wot's the score



117. How do drugs/alcohol make you feel? (tick as many boxes as necessary)

a) Physically unwell ❑
b) Happy ❑
c) Confident ❑
d) Numb/not bothered about anything ❑
e) Energetic ❑
f) Popular ❑
g) Worried ❑

118. Do you think you have a problem with drugs?

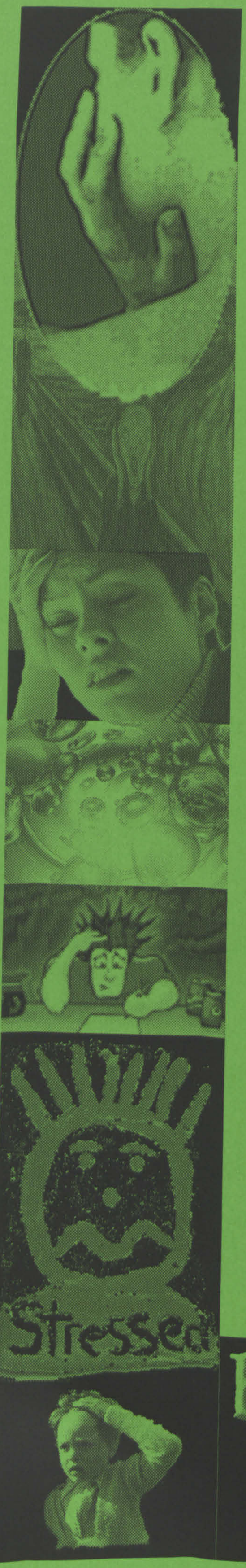
a) Yes ❑
b) No ❑
c) Maybe ❑

119. If you had a problem with drugs, who would you talk to?

a) No one ❑
b) Teacher ❑
c) Parent ❑
d) Friend ❑
e) Professional e.g. drugs counsellor, Doctor ❑
f) Don't know ❑

drugs wot's the score?

bullying drugs wot's the score?


Stressed
bullying
drugs
wot's
the score
?

Appendix 2 Letter of Invitation to Schools

Dear (name of Head Teacher),

I am currently undertaking my Doctorate in Clinical Psychology at the University of Leicester. As part of this I am required to undertake a piece of research. Using questionnaires I am planning to investigate whether there is an association between bullying and substance use in adolescence, and whether there are any psychological factors that may identify those children at risk of using substances. I am therefore writing to request your consideration of your schools possible involvement in the study.

It is envisaged that this research will take place within several inner city schools in Leicester. I feel that it is important to highlight that the identities of any of the participating schools will not be revealed at any point. Approximately 200-300 pupils, between the ages of 14-16, will be approached. Consent will be obtained from Head Teachers, parents and pupils. The study findings will be anonymous and responses will be entirely confidential. Neither the names of participating schools nor individual pupils will be revealed at any point. The University Ethics Committee has granted ethical approval and NHS ethical approval is currently being sought. This research will be closely supervised by academic tutors from Leicester University, Ms Joanna Teuton and Dr Keith Turner, and by Dr Mike Hodgkinson, Consultant Clinical Psychologist, Westcotes House.

Both the Department of Education and the Educational Psychology services are aware of this project taking place, and are interested in the research findings. The Department of Education will have access to the research findings before any publication occurs. Again, I feel it is important to point out that I am aware that schools may be concerned that they may be identified; this will not occur. The Department of Education will not have access to data from individual schools, but instead be presented with data acquired from all participating schools. However, if an individual school requires data specific to their school this can be arranged. In any

case, discussion of the results will take place with Head Teachers. I feel that this is an important step to take due to the possible sensitivity of the project's findings.

Subsequent to completion of the research, support will be available to schools, if required, through the usual channels. Educational Psychology Services have agreed to provide support to either the whole school, a specific year group or individual if the school feels that this is necessary. Information will be also be given to pupils with their questionnaires, regarding access to services related to substance use and bullying. I am more than willing to discuss any other support that I may be in a position to offer.

I believe this to be an interesting and relevant area to research, particularly in light of the current National Healthy Schools Framework initiative, tackling substance use, and bullying. Hopefully this will prove to be a collaborative and relevant project that will benefit individuals, schools and enhance clinical and educational services.

If you have any queries please do not hesitate to contact me either at the University or at Westcotes House on 0116 2252900. I would be delighted to discuss this further with you, or any other staff that you feel may be relevant. My supervisors are equally happy to discuss any aspect of this project with you. I shall be in contact to arrange further discussion of this project and your possible involvement. Thank you for your time.

Yours sincerely,

Vicki Edwards
Trainee Clinical Psychologist

Dr Mike Hodgkinson
Consultant Clinical Psychologist

Appendix 3 Information Sheet for Teachers

'Bullying and substance use in adolescence - is there a link?'

1. What is the study about?

We want to find out more about adolescents' experience of bullying, and whether this is associated with substance misuse. It is hoped that patterns of substance use and involvement in bullying will be highlighted. The researcher will also be looking at the different ways in which young people take substances, reasons for doing do and whether there are any psychological factors, such as depression, anxiety and low self-esteem that can identify those individuals at risk of using substances in association with bullying. This will hopefully enhance your schools current anti-bullying policies and drugs education.

2. What will my students have to do?

Once your school has agreed to participate in this study, the child's parents/guardians will be asked to give consent for their child to participate in the study. Parents will be asked to return consent forms if they **do not** wish their child to take part. This type of consent, known as 'opting out', is a method of consent used by studies of this type. Where possible, letters will be sent out from the school, informing parents that the school is participating in this study, but questions concerning the study should be directed to the researcher, a contact number and address will be given to parents. Parents/guardians will be given approximately two weeks to consider whether they wish their child to participate in this study. If necessary, translation of letters and information sheets will be provided for parents for whom English is not their first language. If parents give their permission the child will be told that they do not have to take part, that it is up to them. The child can opt of the study at any time. The child will then be asked to complete a confidential questionnaire pack, which the researcher will administer. The child will not be required to put their name on their questionnaire pack. Administration of the questionnaire will take about 45-50minutes. In negotiation with yourselves an agreed time will be arranged to administer the questionnaire pack. This may take place during class time, such as PSE.

3. What are the benefits?

The study aims to increase our knowledge about the effects of bullying in adolescents. We know that it is not unusual for young people to be bullied or to bully, and we know that a number of young people take substances. It is hoped that exploration of an association between these experiences may identify those young people at risk of using substances. It is hoped that this will subsequently inform both clinical psychology and educational services regarding anti-bullying policies and drugs education.

4. What are the risks?

There is a small risk that if individuals have had experiences of bullying or substance misuse, answering questions on such topics may raise concerns for them or be upsetting. The researcher is a clinical psychologist in her final year of training and will try to deal with these issues as sensitively as possible. Information will be provided both for pupils and staff as to appropriate services available. Educational psychology services are also aware of this study taking place within your school and have agreed to work with individuals and/or schools to tackle issues if they arise.

5. What happens to the information?

Your pupils' answers will be written down against a confidential number. No respondents' names will be known at any point. This information will be stored on a computer disk and analysed. The Data Protection Act will be strictly adhered to regarding the access and storage of data. Following completion of the study all data will be destroyed. The researcher will be the only person to be able to identify schools, this will be purely for the purpose of providing individual schools with the results of the study. Individual school results will not be shared with other participating schools or the LEA, results will be referred to in general terms i.e. 'findings from inner city schools'.

6. Who else is taking part?

Approximately 250 adolescents aged between 14-16 years who attend one of several inner city schools within the Leicester area will be asked to participate in this study. No individual school will be identified; results will be discussed in terms of 'findings from inner city schools'.

7. What happens at the end of the study?

All the answers will be analysed and the results will be summarised in global terms i.e. not specific to any individual school. This will maintain the confidentiality of participating schools. These results will be sent to the schools that took part in the study. If an individual school requires data specific to their school this can be arranged. The researcher will arrange to come to your school to discuss the practical implications of incorporating results into anti-bullying policies and drugs education.

8. What happens now if we decide to take part?

If you are interested in participating in this research a convenient time will be arranged for the researcher to attend the school to discuss the study with appropriate Year Heads and any other staff that you feel necessary. The supervisors involved in this project, Ms Joanna Teuton, Dr Keith Turner (academic supervisors) and Dr Mike Hodgkinson (clinical supervisor) who would be happy to attend meetings to provide clarification.

9. How much time will participation in this study involve?

It is expected that an initial meeting with the researcher will be arranged to discuss participation in the study. This should take approximately one hour. If you decide to participate in the study a further meeting will be arranged during the summer term to discuss the content of the letter to be sent to parents, and arrange a convenient time for the researcher to come into school to administer the questionnaires. It is expected that this will take place during October/November 2001.

10. Contact name and number

You can contact the researcher, Ms Vicki Edwards, at the Centre for Applied Psychology (Clinical Section), Leicester University, Leicester (0116 2522162), Dr Michael Hodgkinson, Consultant Clinical Psychologist at Westcotes Child and Family Therapy Centre, Leicester by letter or by telephone (0116 2252900) or Ms Joanna Teuton, Lecturer in Clinical Psychology, University of Leicester (0116 2522162).

Appendix 4 Information Sheet for Parents/Guardians

'Bullying and substance use in adolescence - is there a link?'

1. What is the study about?

We want to find out more about adolescents' experience of bullying, and whether this is associated with substance misuse. It is hoped that patterns of substance use and involvement in bullying will be highlighted. The researcher will also be looking at the different ways in which young people take substances, reasons for doing do and whether there are any psychological factors, such as depression, anxiety and low self-esteem that can identify those individuals at risk of using substances in association with bullying. This will hopefully enhance your child's schools current anti-bullying policies and drugs education.

2. What will my child have to do?

Once we have obtained consent from you, your child will be told that they do not have to take part in the study, that it is up to them. Both you and your child will be at liberty to withdraw from the study at any time without prejudice. Your child will then be asked to complete a confidential questionnaire pack, which the researcher will administer. These questionnaire packs will be totally anonymous, they will not need to put their name on the questionnaire, and at no point will their answers be identifiable to the young person. Completion of the questionnaire pack will take about 45-50minutes. In negotiation with staff an agreed time will be arranged to administer the questionnaire pack. This may take place during class time, such as PSE. This study will hopefully take place during October/November.

3. What are the benefits?

The study aims to increase our knowledge about the effects of bullying on adolescents. We know that it is not unusual for young people to be bullied or to bully, and we know that a number of young people take substances. It is hoped that exploration of an association between these experiences may identify those young people at risk of using substances in association with bullying. It is hoped that this will subsequently inform both clinical psychology and educational services regarding anti-bullying policies and drugs education.

4. What are the risks?

There is a small risk that if individuals have had experiences of bullying or substance misuse, answering questions on such topics may raise concerns for them or be upsetting. The researcher is a clinical psychologist in her final year of training and will try to deal with these issues as sensitively as possible. Information will be provided both for pupils and staff as to appropriate services available. Educational psychology services are also aware of this study taking place within your child's

school and have agreed to work with individuals and/or schools to tackle issues if they arise.

5. What happens to the information?

Your child's answers will be written down against a confidential number. At no point will your child be required to put his/her name on the questionnaire. This information will be stored on a computer disk and analysed. Neither the name of individual pupils or participating schools will be revealed at any point. The researcher will be the only person to be able to identify schools.

6. Who else is taking part?

Approximately 250 adolescents aged between 14-16 years who attend one of several inner city schools within the Leicester area will be asked to participate in this study. No individual school will be identified; results will be discussed in terms of 'findings from inner city schools'.

7. What happens at the end of the study?

All the answers will be analysed and the results will be summarised. These will be sent to the schools that took part in the study. If an individual school requires data specific to their school this can be arranged, otherwise results will be discussed as a whole, and not subdivided into specific schools. This will maintain the confidentiality of participating schools. The researcher will discuss the practical implications of incorporating results into anti-bullying policies and drugs education if required.

8. What happens now if we decide to take part?

If you are happy for your child to participate in the study you do not have to do anything else. If you **do not** wish your child to participate in this study please return the tear off slip in the envelope provided. If you have any questions about the study please contact the researcher at the address/phone number below.

9. Contact name and number

You can contact the researcher, Ms Vicki Edwards, at the Centre for Applied Psychology (Clinical Section), Leicester University, Leicester (0116 2522162), Dr Michael Hodgkinson, Consultant Clinical Psychologist at Westcotes Child and Family Therapy Centre, Leicester by letter or by telephone (0116 2252900) or Ms Joanna Teuton, Lecturer in Clinical Psychology, University of Leicester (0116 2522162).

Appendix 5 Parental Consent Letter

Dear Parent/Guardian,

Re: Bullying and substance use in adolescence-is there a link?

A research study is being carried out in our school by Vicki Edwards. She is currently studying for her Doctorate in Clinical Psychology at the University of Leicester. This research is being closely supervised by Dr Mike Hodgkinson, a Consultant Clinical Psychologist and two lecturers in Clinical Psychology from Leicester University, Ms Joanna Teuton and Dr Keith Turner.

This study has been designed to investigate the experience students may have of bullying and substance use

I have given my permission for students at this school to participate in this study if their parents consent to their involvement. Each pupil taking part will be asked to complete an **anonymous** questionnaire pack during his or her time in class. This questionnaire pack will relate to bullying, substance use and psychological well being.

It is hoped that practical implications can be drawn from the study that will contribute to anti-bullying programmes in schools, and increase awareness of adolescent substance use, in order to tackle drugs education more effectively.

You or your child may withdraw from this study at any time without justifying your decision and without affecting your child's education.

Please read the parent/guardian information leaflet on the study above and feel free to discuss the details with Vicki Edwards and ask any questions if necessary. She can be contacted on 0116 2522162, or in writing at the Centre for Applied Psychology, Clinical Section, University of Leicester.

If you would **not** wish your son or daughter to take part in this study please return the slip below to school by……(*at least two weeks will be given for parents/guardians to consider their involvement in the study*).

Thank you very much for your co-operation.

Yours sincerely,

Head Teachers name

Name of child:---------- Class----------

I **DO NOT** wish my son / daughter to take part in the above study.

Signed:----------(Parent / Guardian)

Appendix 6 Verbatim Transcript of Classroom Introduction

"As you have already been informed by your teacher……today you are going to be part of a study which is concerned with looking at some of your experiences at school.

Your parents have received a letter, which told them all about the study, and they gave their consent for you to take part. However, if at any stage during the study you no longer wish to take part then you do not have to do so. It's up to you.

There are no special reasons why you have been chosen to take part in this study. Your year group was picked at random and I will be asking everyone in the year to take part.

This is not a test. There are no right or wrong answers. I am only interested in finding out what has happened to you, and that will be different for each of you. So it is important to work on your own when you are answering the questions that I will show you in a minute.

Before we start, I would like to reassure you that your replies are completely anonymous, so please do not write your name on your form. Your answers will be kept completely confidential; so that whatever you write on your form will only be seen by me and will not be shown to any teachers, parents or anyone else from the school.

Does anyone have any questions?"