

**BULLYING: PREVALENCE AND ITS ASSOCIATION WITH  
PSYCHOLOGICAL DISORDERS AMONG STUDENTS IN PUBLIC  
DISTRICT SECONDARY SCHOOLS IN KIKUYU DIVISION OF KIAMBU  
DISTRICT; KENYA.**

**A DISSERTATION IN PART FULFILMENT FOR THE AWARD OF THE  
DEGREE OF MASTER OF SCIENCE IN CLINICAL PSYCHOLOGY OF  
THE UNIVERSITY OF NAIROBI**

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## DECLARATION

I, Anne Wanjiru Mwayo, do hereby declare that this is my original work and that it has not been presented for the award of any degree or to any other University.

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## CERTIFICATE

This is to certify that this dissertation entitled 'Bullying: Prevalence and its association with psychological disorders among students in public district secondary schools in Kikuyu Division of Kiambu District; Kenya', is research work carried out independently by Anne W Mwayo under our guidance and supervision:-

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## DEDICATION

This work has been dedicated to my husband Mark Mbwayo for his great financial and moral support. To our children Anthony, Christine and Elizabeth for their encouragement and understanding during the time I was doing the project. Thank you all.

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## **ABSTRACT**

### **Objective:**

To determine the prevalence of bullying and its association with psychological disorders among students in public Districts Schools in Kikuyu Division of Kiambu District.

### **Design:**

A cross sectional descriptive study.

### **Setting:**

4 public District Secondary Schools in Kikuyu Division, Kiambu District were studied. They are as follows: 1 boys, 1 girls and 2 mixed schools.

### **Method:**

Self administered Questionnaires were filled. These are;

- The social- demographic questionnaire
- The Olweus Bully questionnaire
  - The General Health Questionnaire

### **Data Analysis:**

Descriptive and inferential analysis.

**Data presentation methods;**-tables, charts and graphs and narratives are used.

**Conclusion:**

There is bullying in public District Schools in Kikuyu Division of Kiambu District. Bullying also leads to psychological Distress in the schools studied.

**Application of results:**

Will be used in formulating appropriate policies to deal with bullying from the school level to the national level.

## DEFINITION OF TERMS.

**Bullying:** An aggressive behaviour intended to cause harm, both physical and psychological to an individual. The behaviour is repeated over time and occurs in a relationship of power imbalance.

**The bully:** The individual or person who perpetrates the bullying acts/actions.

**The victim:** The individual/person who the target of bullying acts/actions.

**Bully-Victim:** The individual/person who is both a perpetrator of bullying and is also a target of the bullying acts/actions.

**By stander:** The person present and witnesses bullying.

## CHAPTER ONE

### 1.0 Introduction

It is unlikely that any school can be completely free from any form of bullying behaviour. The prevalence of bullying is high and available information on bullying has ranged from a reported 10% of children who were said to be victims of severe acts of bullying to 75% of children who reported being bullied at least once during the academic year. Researchers have concluded from these statistics that at least 25% of all children will be affected by bullying at some point during their school years and many of them missing a significant number of school days each year owing to fear of being bullied (1).

Bullying is a behavior that develops in response to a number of factors in the environment in which it takes place. This may be at home, at school or within the peer group. Bullying may also be an imitation of aggression experienced at home. Many cases of childhood bullies are those that have experienced abuse by a parent or have witnessed parental abuse of a spouse or siblings. Some have also been bullied by their siblings. Living with family members who are overly punitive, verbally or physically abusive also contribute to teaching children that aggression and violence are effective and appropriate means to attain a goal. Such children learn to strike back as a way of handling problems, thus promoting the bullying phenomena. In addition to experiencing inadequate or inappropriate discipline, bullies are likely to lack parental involvement, supervision and nurturing during childhood (2). The frequency and severity of bullying is related to the amount of adult supervision that children receive. Additionally, children who observe parents and siblings exhibiting bullying behavior or who are themselves victims are likely to develop bullying behaviors. When children receive negative messages or physical punishments at home, they tend to develop negative self concepts and expectations and may therefore attack before they are attacked. Bullying others gives them a sense of power and importance (3).

Whereas bullying has been extensively studied and reported in other parts of the world, there are few systematic studies on bullying in Africa. These include, a study in Nigeria by Egbochuku E. O. (6); in South Africa by De Wet Corene (7), in Zimbabwe, Egbochuku (6) quoted Zindi's work on *Bullying in Boarding Schools in Zimbabwe* and in Kenya by Ndeti et al (8). All these studies found high prevalence of bullying in their respective countries. Increased effort in carrying out more research on bullying is therefore necessary to determine its extent and effects in our Kenyan schools.

## 1.1 Background

Bullying has been defined by Rigby (9) as "repeated oppression, psychological or physical of a less powerful person by a more powerful person or a group of persons". A more widely recognized definition of bullying is given by Olweus (10) as 'an aggressive behaviour that is intended to cause harm or distress; that occurs repeatedly over time and one that occurs in a relationship in which there is an imbalance of power or strength'. These definitions highlight the key point that bullying does not occur when there is a conflict between people of equal or similar power. Bullying has two key components namely; repeated harmful acts and an imbalance of power. It involves repeated physical, verbal or physiological attacks or intimidation directed at a victim who cannot properly defend himself or herself because of size or strength or because the victim is outnumbered or less psychologically resilient (11). Bullying can also take the form of direct or indirect acts (10). Direct bullying involves physical contact, verbal taunts, or the use of obscene threatening gestures. Indirect bullying involves more passive or aggressive actions such as spreading rumours, intentionally excluding someone from a group, or getting other children to assault a victim.

Bullying has been noted to be a form of anti social behaviour that is pervasive in schools, neighbourhoods and homes (12). It has also been noted in the Diagnostic and Statistical manual of mental Disorders (DSM – IV – TR) that bullying is one criterion of conduct disorder which is a specific psychiatric diagnosis characterized by a repetitive and

persistent pattern of behaviour “in which either the basic rights of others or major age appropriate societal norms or rules are violated” (2).

### **1.2 Statement of the Problem:**

Bullying in schools is a world wide problem that has negative consequences for the general school climate and for the rights of students to learn in a safe environment without fear. Bullying can also have negative life-long consequences for both students who bully and for their victims (13). Victimization is associated with adjustment problems such as depression, low self esteem, anxiety, suicidal ideation and lack of friends. Physical consequences involve physical harm and a lot of stigmatization.

### **1.3 Justification of the study:**

From various researches carried out world wide, bullying is quite prevalent and has negative impact on the victim, the bully and the victim-bully. In Kenya, a study carried out by Ndeti et al (8) indicated a high prevalence of bullying in Kenyan urban schools. It is therefore important to find out whether the problem of bullying exists in rural public District schools. It is also important to find out whether the Kenyan students who are victims, bullies and victim-bully experience the same kind of psychological effects as other students in other parts of the world where research has been carried out.

### **1.4 Significance of the study:**

- a) School Management of the schools involved in the study will be made aware of the absence or existence of bullying so as to take remedial actions if necessary.
- b) Findings on psychological effects of bullying will be beneficial to parents and teachers in identifying and managing children affected by bullying.



- c) The study hopes to provide additional information to the current database on the bullying behaviours to the Ministry of Education. With this information the Ministry of Education will strive to wipe out the vice. The research findings will form a basis for generalization to others schools in Kenya.

## CHAPTER TWO

### 2.0 LITERATURE REVIEW

Extensive world wide studies during the 1980's and 1990's generally found that between 8% and 38% of students were bullied with some regularity and that between 5% and 9% of students bully others with some regularity. Chronic victims of bullying were bullied once a week or more and this number generally range from 8% to 20% of the student population (11).

Australian studies suggest that bullying is relatively high. Based on a study of more than 38,000 Australian children, at least 50% of the children have been bullied at school and approximately one child in six is bullied at least weekly by another child or group of students (14).

Boulton and Underwood (15), in a study of schools in England found that 21% of the children reported being bullied and about 17% reported bullying others sometimes or more often. Whitney and Smith (16), in a study on the nature and extent of bullying in Junior, middle and secondary schools in Sheffield, found that rates of bullying were disturbingly high, varying with year, gender and school location. Brunstein et al (17), in a study carried out in six New York State High Schools found that, approximately 9% of the sample reported being victimized frequently and 13% reported bullying others frequently. Nels Ericson (18), in a survey carried out by the National Institute of Child Health & Human Development (NICHO) found that 17% of the respondents had been bullied "sometimes" or "weekly"; 19% had bullied others sometimes or weekly and 6% had both bullied others and been bullied.

Baldry and Farrington (19) carried out a research on types of bullying among Italian school children and found out that over half of all students had bullied others in the previous 3 months and nearly half had been bullied. The study involved 113 girls and 125

boys. Salmon and Smith (20), in a study carried out in the United Kingdom found that prevalence of bullying was high. Ten percent of the pupils reported that they had experienced bullying "sometimes or more often" during that term, with 4% reporting being bullied at least once a week. Fekkes et al (21), in a study to establish bullying in Dutch schools, found that bullying was prevalent in Dutch schools. More than 16% of the children aged between 9-11 years reported being bullied on a regular basis and 55% reported regular active bullying during the current term.

Gotin et al (22), in a study of Jerusalem schools found that 57% of boys and 27% of girls had been bullied, while the percentage of those who carried out the bullying was 50.3% boys and 39.5% girls.

According to Kim et al (23), in a study of Korean Schools, 40% of all students were involved in bullying, 14% were victim only, 17% perpetrator only, while 9% were victim-perpetrator

Forero et al (24), studied children from New South Wales, Australia, and found that almost a quarter of the students; 23.7% bullied other students. 12.7% were bullied and 21.5% were both bullied and bullied others on one or more occasions in the last term of school.

## **2.1 Gender Differences:**

The degree of bullying varies within gender. Boys are reported to be the most likely than girls to bully other students (10,25,26,27). Girls report being bullied by both boys and girls, whereas boys typically are bullied only by other boys (10,27). There are some marked differences in the kinds of bullying that boys and girls experience. Boys are more likely than girls to report being physically bullied by their peers (27). Girls on the other hand are more likely than boys to report being the target of rumor-spreading and sexual comments (27). Girls are also more likely than boys to bully each other through social exclusion.

Boulton and Underwood (15) reported that both being a bully and being bullied were more prevalent among boys than among girls. They also found out that most boys were bullied by other boys only whereas girls were more likely to be bullied by children of either sex.

According to Baldry and Farrinton (19), boys bullied more than girls, and that both boys and girls tended to be bullied by boys. Kaltiala-Heino et al (28), in a study of Finnish adolescent students, a total of 9 % girls and 17% boys were involved in bullying on a weekly basis. Forero et al (24) found that more boys than girls reported bullying others and being victims of bullying. Fekkes et al (21) in a study of Dutch Schools did not find a significant difference in being bullied between boys and girls. In Nigeria Egbochuku (6) found that more boys than girls were found to be both victims and bullies.

## **2.2 Bullying in Urban, peri -urban & Rural Communities**

Recent findings from a national representative study of 6<sup>th</sup>- 10<sup>th</sup> graders found out that youth from urban, sub urban town and rural areas in the United States were bullied with same frequency (27). Very small differences were found in students' report of bullying others. Youth in rural areas were 3% to 5% more likely than youth in towns, sub urban areas or urban areas to admit bullying their peers.

## **2.3 Location of Bullying:**

Bullying is much more common at school than on the way to and from school, such as on the bus, at the bus stop or elsewhere in the community (10, 26, 27). Common locations for bullying at school include the playground (for elementary children), the classroom, both with and without the teacher present, the lunchroom, and the hallways (29).

## **2.4 CONSEQUENCES OF BULLYING:**

Bullying can have long term effects on academic, physical and emotional consequences on bullies, their victims and bystanders. The incident of bullying at school has negative impact on students. Opportunities to learn in an environment that is safe and secure and where they are treated with respect are denied (4, 30).

Rigby (31) established that peer victimized girls reported a higher incidence of emotional distress and more perceived adverse health effects compared with 'others' and victims of both sexes indicated significantly worse mental and physical health. Among boys, only bullies consistently reported poorer health.

Effects of bullying have been classified into the following:

### **2.4.1 Low Psychological Well Being:**

Being victimized at school has been related to self esteem. Using various reliable self esteem measures, these study results generally indicate low self esteem or low global self worth (a similar concept is associated with repeated victimization) (32). Olweus (10) reported that in Norway, boys between 13 and 16 years who were victims at school had lower than average self esteem, a condition that was found to persist into their twenties. In Ireland, (33), Australia, (34), and England, (35), have confirmed the connection between low self esteem and being repeatedly bullied at school. Boulton and Underwood (15) also found that victims of bullying but not bullies were most likely to report feeling unhappy and lonely at school and to report having fewer friends.

#### **2.4.2 Poor Social Adjustment:**

Bank (13) notes that as many as 7% of America's eight graders stay home at least once a month because of bullying. The act of bullying tends to increase some students' isolation because their peers do not want to lose status by associating with them or because they do not want to increase the risk of being bullied themselves. Studies conducted in Australia have observed that victimized students are likely to report more absenteeism from school than other children, and, moreover, absenteeism was shown to increase as a function of the severity of victimization, (32). Juvonen et al (36), found that bullies, the victims and the bully-victim compared to other students displayed school problems and difficulties getting along with others.

Salmivalli et al (37), notes that children exposed to systematic victimization by their peers suffer from adjustment problems.

Data from a retrospective study of U.S. adults suggested that the interpersonal difficulties of men subjected to victimization at school may take the form of disabling shyness and fear of intimacy that make relationships with the opposite sex difficult or impossible. This suggestion was subsequently confirmed in a further Australian's retrospective study of adult men and women. (38)

#### **2.4.3 Psychological Distress:**

Numerous correlation studies have reported that symptoms of chronic anxiety and fear are often associated with experiencing peer victimization. An early Swedish study of so called "whipping boys" (that is boys frequently targeted by aggressive peers) reported that such children were significantly more anxious and insecure than others (39). Further studies carried out in England (40) have reported that feelings of anxiety characterized peer victimized children.

Among English secondary school students, it was observed that victimized children tended to report feeling irritable, nervous and panic after episodes of bullying, 32%

indicated that they had recurring memories of bullying incidents and 29% had subsequently found it hard to concentrate (41). Juvonen et al (36) also found that victims were emotionally distressed and socially marginalized among their classmates. Bully-victims were the most troubled group, displaying the highest level of conduct, school and peer relationship problems.

A connection too, has been suggested with severe depressive tendencies and bullying. Among Canadians, those reporting high level of peer victimization were found to be more depressed than others (42). A study of Finnish school children aged 14 years to 16 years reported that 18% of student identified by peers as frequently victimized showed significantly more depression than did others (43). Kaltiala-Heino et al (44) found that there was increased prevalence of depression and severe suicidal ideation among both those who were bullied and those who were bullies. Depression was equally likely to occur among those who were bullied and those who were bullies. It was most common among those who were both bullied by others and who were also bullies themselves.

Kaltiala-Heino(28) found that anxiety, depression and psychosomatic symptoms were most frequent among bully-victims. Among girls, eating disorders were associated with involvement in bullying in any role, but among boys with being bully-victims only. Lyndal B et al (45) established in a study, that victimization raised levels of subsequent self reported symptoms of anxiety or depression regardless of the co-existing levels of social adversity. In Australia, adolescent school children, both boys and girls who had been reportedly bullied (according to peer reports as well as self reports were found to be more prone to suicidal ideation than other students (14). In a study carried out in Korean schools, results indicated that school bullying, and being a victim- perpetrator in particular are significant risk factor for suicidal ideations in adolescents, independent of other suicide factors such as anxiety or depression, gender, social economic status, residence and family structure (23).

Nansel, T.R et al (27) found that perpetrating and experiencing bullying were associated with poorer psychosocial adjustment. Salmon et al (46) findings in an adolescent unit, was that the students who attended the unit as out patients, being bullied was frequently a factor in the presentation of adolescent psychiatric services, with depression being the diagnosis in over 70 per cent of cases. In contrast, bullies and bully-victims were most likely to present conduct disorders which were frequently co-morbid with attention deficit hyper activity disorder. Van der wal et al (47) found that depression and suicidal ideation are common outcomes of being bullied in both boys and girls. These associations are stronger for indirect than direct bullying. Boy and girl offenders of bullying far more often reported delinquent behaviour. Bullying others directly is a much greater risk factor for delinquent behaviour than bullying others indirectly. Boy and girl offenders of bullying also more often reported depressive symptoms and suicidal ideation.

#### **2.4.4 Physical Ill- Health Symptoms:**

Researchers have identified that victims of bullying were more likely to report experiencing poorer general health (10), and have more migraine headaches (48). Williams et al (49) found that there was an association between children reporting being bullied sometimes or more often and reporting not sleeping well, bed wetting, feeling sad and experiencing more than occasional headache and tummy ache.

A significant trend for increasing risk of symptoms with an increasing frequency of bullying was shown for all reported health symptoms.

#### **2.5 Consequences on the Bully:**

Teens (particularly boys) who bully are more likely to engage in other anti social delinquent behaviours, for example, vandalism, shoplifting truancy and drug abuse into adulthood. They are four times more likely than non bullies to be convicted of crime by age 24 with 60 %of bullies having at least one criminal conviction (10) ,



Ward CL et al (53) in Cape Town found that rates of exposure to violence and related symptoms were quite high in high schools; symptoms were associated with exposure to violence. In a study carried out in Nigeria, results indicated a prevalence rate of almost four in every five participants (78%) reporting to having been bullied to some degree and 85% of the children admitted to bullying others at least once (6). In a study carried out by Ndeti et al (8) in Kenya, the prevalence rates of bullying ranged between 63% and 85%.

There is evidence of wide spread bullying not only within particular schools but all over the world. Bullying affects both boys and girls though boys seem to have higher incidents of bullying compared to the girls. Bullying also has an effect not only on the victims but also on the bully and the witnesses or bystanders. The research will try to find out the occurrence and effects of bullying on rural public district secondary school students.

## CHAPTER THREE

### 3.0 METHODOLOGY

#### 3.1 Research Objectives:

##### Main objective:

To determine the prevalence and psychological disorders of school bullying among students in public District schools in Kikuyu Division:

##### Specific Objectives:

- 1) To determine the prevalence of bullying.
- 2) To determine the differences in bullying between boys and girls in these schools.
- 3) To identify the modes of bullying
- 4) To establish the association of bullying and psychological profiles.

#### 3.2 Hypotheses:

##### Null hypotheses

- I. There is no bullying in District Public schools in Kikuyu Division.
- II. There is no association between bullying and psychological pathology.

##### Alternative hypotheses

- I. There is bullying in District Public schools in Kikuyu Division.
- II. There is an association between bullying and psychological pathology.

### **3.3 Study Design.**

This was a cross-sectional descriptive study.

### **3.4 Study Population.**

Kikuyu Division is in Kiambu District, Central Province, Kenya. It has different categories of secondary schools: 2 National Schools and 4 Provincial schools. The Division has a total of 15 District schools. Of the total number of schools, one is a boy's only, one a girl's only, while thirteen are co educational. One school has 80% of the total population as boarders while the remaining 20% are day scholars. The rest of the district schools are day schools.

District schools in Kikuyu Division, Kiambu District are public schools which mainly admit students from the neighbourhoods. The age range of the students is between 14.5 years to 19.5 years. In the division, the District Schools target students who generally have not been selected to join provincial secondary schools. However, some students have merited joining the provincial secondary schools, but they find the school fees high, and thus opt to join the district secondary schools whose school fees is lower.

The researcher's choice of Kikuyu Division is based mainly on some key considerations. The only significant study on bullying was done in Nairobi; the cosmopolitan capital of Kenya (8). There is no information on rural schools, at least for purpose of comparing rural and urban settings. Kikuyu Division is convenient to the researcher since it is near Nairobi where she is under taking her studies. The researcher also teaches in a School in Kikuyu Division. Knowledge on the prevalence and pattern of bullying in the Division would be appropriate for the researcher to initiate advocacy in an environment in which she works and is familiar with.

### **3.5 Sampling Method:**

Three schools were studied; two single sex and one mixed school. The two single sex schools were included purely on that basis. They helped the researcher understand whether in single sex schools bullying modes are different and whether the consequences are different from those of mixed schools. The third school was a mixed school. This school was picked randomly from the 13 remaining mixed schools.

The names of the 13 schools were written on different pieces of paper. These papers were then put in an opaque container which had a lid. Thorough mixing was done and then one paper was picked. The person picking was instructed not to look at what he or she was picking. To ensure no cheating he or she had their eyes covered. Total population of the three selected schools was 1330 students. All form 1 to 4 students were studied. This ensured that there was no biasness introduced through feelings of exclusion by students and no bully or victim was left out.

### **3.6 Inclusion criteria:**

- a) Public District School students from Kikuyu Division.
- b) Schools whose principals have given consent.
- c) Student participants have given assent.

### **3.7 Exclusion criteria:**

- a) Students outside Kikuyu Division.
- b) Students whose schools are not registered as District public Secondary Schools in Kikuyu Division.
- c) Schools whose principals decline to give consent.
- d) Participants who do not give assent to participate.

### **3.8 Instruments:**

Three instruments were used:

#### **I. The socio- demographic Questionnaire.**

This was constructed by the researcher to capture the socio-demographic information of the student. The information captured included: the form of the respondent, category of the school, age, gender, the number of siblings, position of birth and finally whether the parent(s) are alive.

#### **II. The Olweus Bullying Questionnaire.**

The Olweus Bullying Questionnaire was developed by Dan Olweus, a Swedish psychologist (1991). It is a self administered questionnaire. All the questions refer to the student's own experience at any time in his or her present school over the previous six months. It has been used extensively in many countries for example in Norway, Australia, Turkey, and Kenya. . The questionnaire requires either a "Yes" or "No" answer to any question on whether bullying has occurred or not in the six months. Frequency over the last six months is measured as follows:-Seldom =1-3 times, frequent =4 times or more. It is composed of sections A and B. Section A asks questions related to direct bullying symptoms/signs such as being called bad names, belongings taken, told lies about you, nasty tricks played on you and if had been threatened/ blackmailed, beaten up or hit and whether the student had done the same to colleagues. It also enquires on the frequency, location, class and gender of the bully. Section B deals with the so called indirect bullying, like refusing to play with you, said would not be your friends anymore, telling nasty stories that are not true about you, and spoiling other students games (8).

### **III. General Health Questionnaire.**

The General Health Questionnaire (GHQ) is a measure of current mental health and since its development by Goldberg in the 1970's; it has been extensively used in different settings and different cultures (54). The GHQ has been used extensively validated with adults. It has been used with adolescents (54). Research by Tait et al (55) found the instrument to be a valid index of psychological well being of the adolescent population. The scale asks whether the respondent has experienced a particular symptom or behavior recently. Each item is rated on a four point scale (less than usual, no more than usual, rather more than usual, or much more than usual). Scoring is the Likert scoring styles (0-1-2-3) from left to right. 12 items, 0 to 3 each item and the score range from 0 to 36. Score >15 shows evidence of distress. Score >20 suggests severe problems and psychological distress. The study will use the GHQ-12. It is brief, simple, easy to complete, and its application in research settings as a screening tool is well documented (54).

#### **3.9 Ethical Considerations.**

The process begun by obtaining approval from the Department of Psychiatry, University of Nairobi and then application of ethical clearance from Kenyatta National Hospital Research and Ethics Committee. The researcher then sought permission from the Ministry of Education, as all the public schools in Kenya are under this ministry, and finally from the heads of the concerned institutions. The logistics of bringing all the parents or guardians together for this study would be prohibitive both economically and time wise for otherwise parents or guardians who were busy earning a living for their families, whether it is a day or boarding school. The care and guardianship of a child while in school is vested on the head of the institution on behalf of the parent or guardian. The research did not involve any invasive procedures. The head of the concerned institution could give or refuse consent on behalf of the parent or guardian. Confidentiality was assured to the students in the introductory letter in every questionnaire. They were also informed

that they did not have to participate in the research if they did not want to. At the same time they were informed that they could withdraw if they wanted to, with no penalties.

Benefits of the study include the fact that those students who have experienced bullying but had no chance of telling anybody could do it. Those with psychological distress due to bullying will get a chance of getting help if they need it. The researcher's contact was available to the students and the principal. If bullying incidents are identified the school management can put anti-bullying programmes in place.

### **Procedure of Administration**

The researcher explained to the principal about the research through the consent explanation form, and then where consent was granted she or he signed the consent form. The researcher explained to the students about the research and its benefits, assured them of confidentiality and freedom of participation without coercion. Those who accepted filled the anonymous questionnaires: - the socio-demographics, the bullying and the general health questionnaire. When the student completed, they folded and stapled them, then dropped them in a sealed ballot box. Afterwards the researcher collected the ballot boxes and transported them to the data entry point. This ensured that confidentiality at all levels was maintained.

### **3.10. Administration of the Questionnaires to the students**

On the appointed day and time the students were explained to about the research, assured of confidentiality and any other concern they had was explained to them. With the help of the class prefects the questionnaire sets were given. The set consisted of

- a) Assent explanation.
- b) The socio demographic questionnaire,
- c) The Olwues Bully Questionnaire,

d) **The General Health Questionnaire.**

All the above questionnaires were self administered. After the students finished filling them, they then folded them and put them in a box which was placed at the front of the class. When the whole school completed, the boxes were transported back to the working centre of the researcher by the researcher.

**3.11 Data Analysis**

The questionnaires were entered and analyzed using SPSS version 12.0. The analyzed data is both descriptive and inferential statistics.

**3.12. Presentation of the data**

The analyzed data is presented using frequency tables, bar graphs and pie charts.



## CHAPTER FOUR

### 4.0 RESULTS

#### 4.1 SOCIO DEMOGRAPHIC CHARACTERISTICS

##### 4.1.1 Age

The age of the students ranged between 14 to 22 years. They were grouped in the following: 14 -15 years, 16 – 17 years 18 – 19 and 20+ years.

##### 4.1.2 Gender

In terms of gender, the boys contributed 74.9% while the girls contributed 25.1%.

##### 4.1.3 Level of Education

The total number of students studied was 1305 and the distribution of the students per form was as follows: Form One had a total of 200 students (15.3%), Form Two a total of 575 (44.1%) Form Three a total of 389 (29.8%) while Form Four had a total of 141 (10.8%).

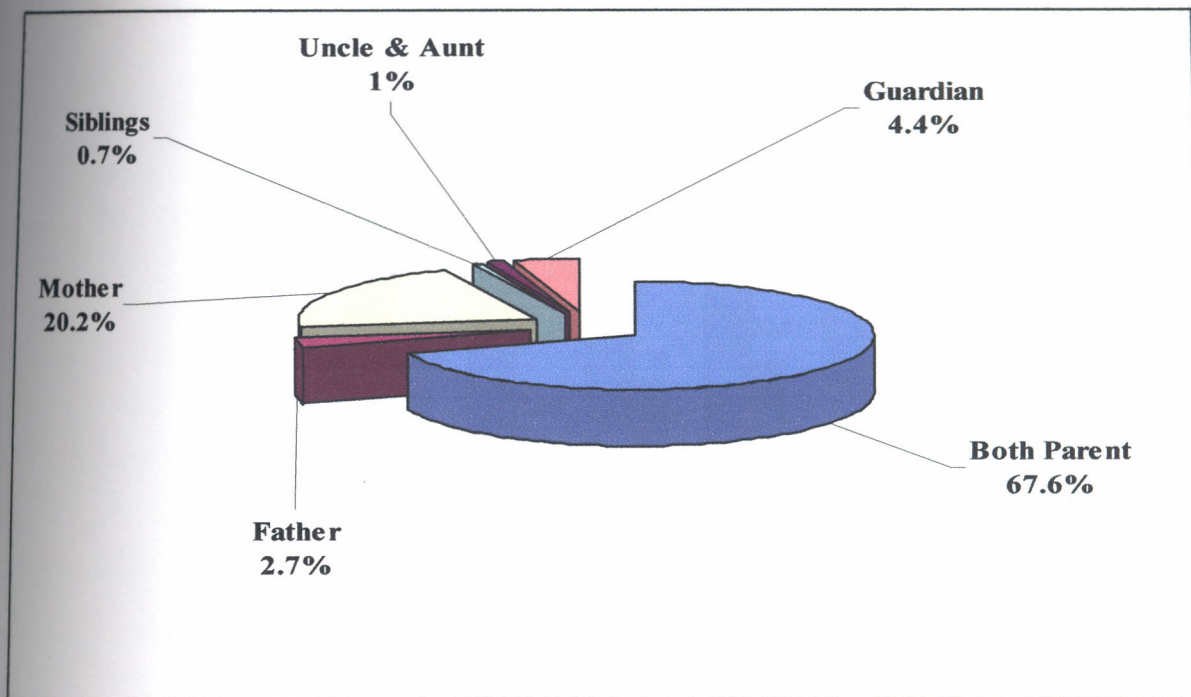
##### 4.1.4 Category of School

During the research four schools were studied and they are as follows: one boy's school contributing 51.1%, one girl's school contributing 9.5% of the total data and two mixed schools contributing 39.9% of the total data. Of the these schools, one was boarding contributing 51.1% while all the others were day schools contributing 48.9% of the total data.

##### 4.1.5 Living Arrangements

Majority of the students under research were living with both parents 67.6% while the rest were living with: father 2.7%, mother 20.2%, siblings 0.7%, aunt and uncle 1.0% and guardians 4.4%. These are represented by figure 1.

**Figure 1: Living Arrangement**

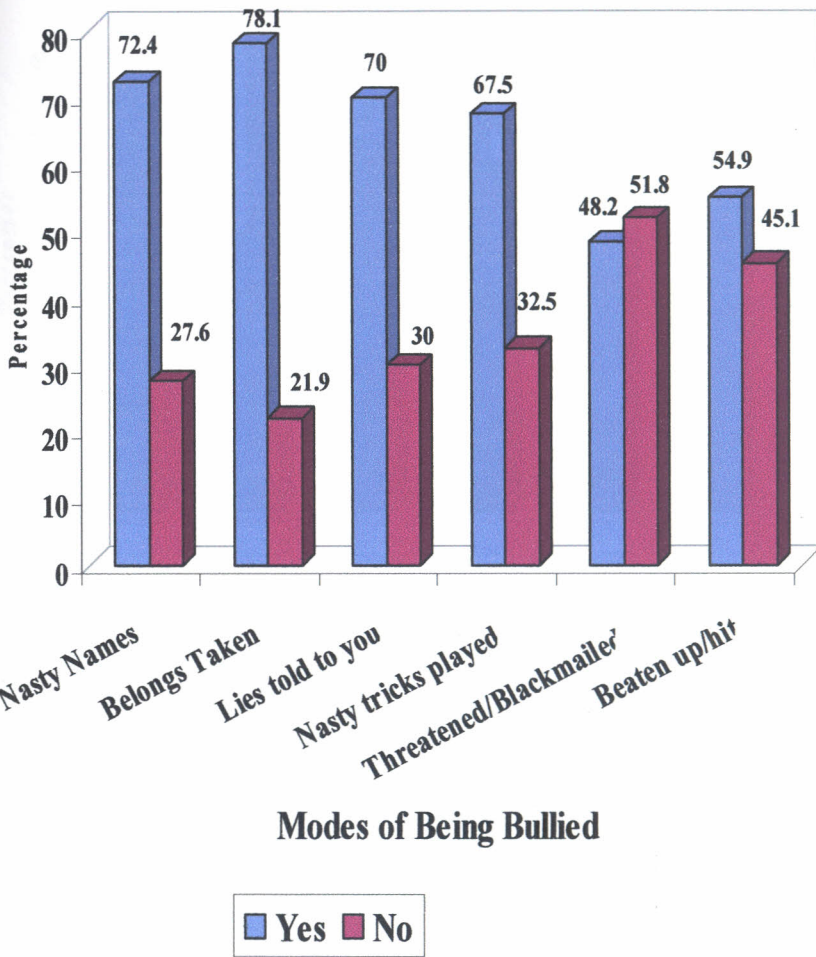


#### **4.2 PREVALENCE OF BULLYING**

Both direct and indirect bullying either as a victim or a perpetrator was studied. The results varied depending on the mode of bullying and whether it is direct or indirect bullying.

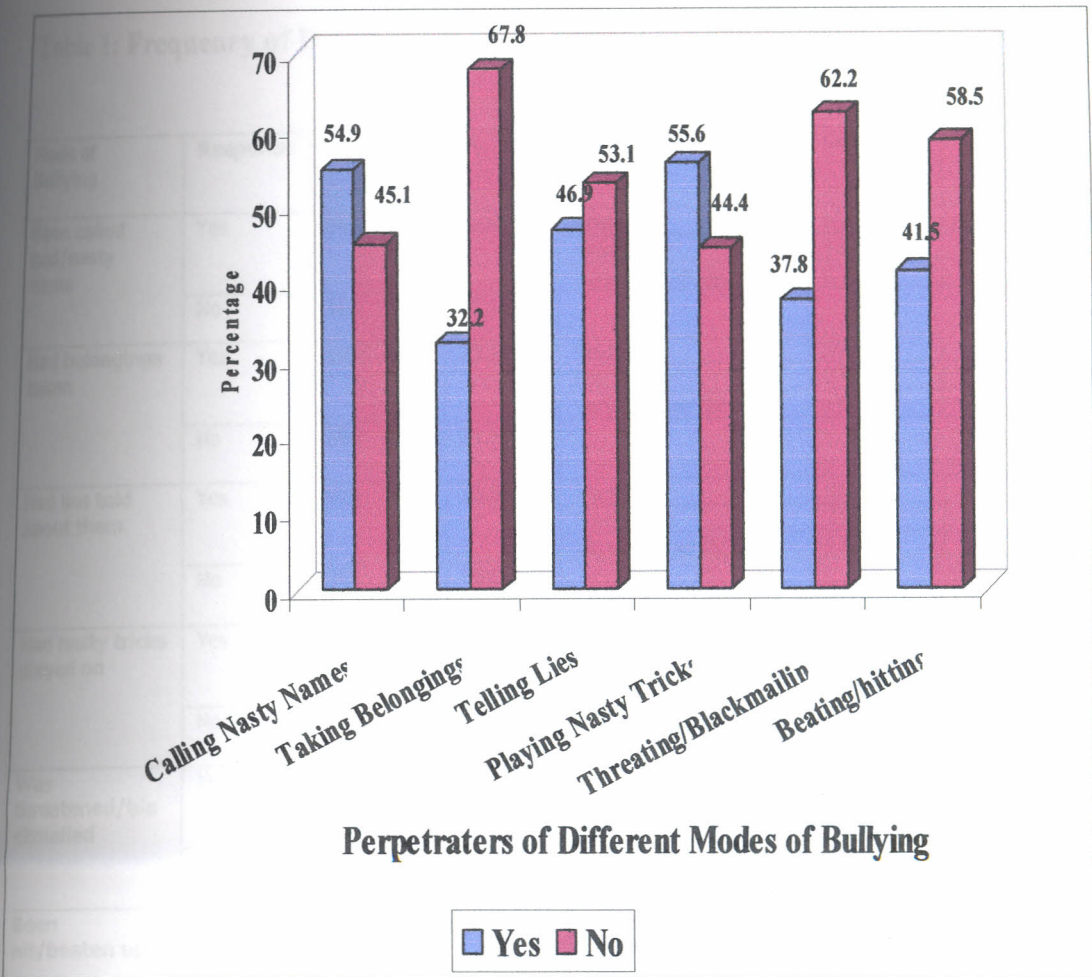
The prevalence of victims direct bullying was as follows: The different types of bullying and their prevalence were as follows: 72.4% of the students had been called a nasty name, 78.1% had their items taken, 70.0% had lies told about them, 67.5 had nasty tricks played on them, 48.19% had been threatened or blackmailed, 54.9% had been beaten up or hit. This is illustrated by figure 2 below.

Figure 2: Victims of Direct Bullying



The prevalence of perpetrating direct modes of bullying varied as follows: 54.9% said that they had called others nasty or bad names, 32.2% had taken belongings from others, 46.9% had told lies about other students, 55.6% had played nasty tricks on others, 37.8% had threatened or blackmailed other students, while 41.5% had hit or beaten another student. All these were carried out in the last six months. These are shown by figure 3 below.

**Figure 3: Perpetrators of Direct Bullying**



Apart from the prevalence, the questionnaire was able to pick the frequencies of the different modes of bullying which are classified as seldom, frequent or very frequent. These are shown by the two tables below representing the victims (table 1) and perpetrators (table 2). In all the modes of bullying either as a victim or perpetrator, the frequency decreased from seldom to frequent and very frequent having the least.

**Table 1: Frequency of Direct Bullying: Victims**

<b>Mode of Bullying</b>	<b>Response</b>	<b>Count</b>	<b>%</b>	<b>Frequency</b>	<b>Count</b>	<b>%</b>
<b>Been called bad/nasty name</b>	Yes	945	72.4	Seldom	506	53.5
				Frequently	439	46.5
				Very Frequently	0	0
	No	360	27.6			
<b>Had belongings taken</b>	Yes	1019	78.1	Seldom	599	58.8
				Frequently	277	27.2
				Very Frequently	143	14.0
	No	286	21.9			
<b>Had lies told about them</b>	Yes	914	70.0	Seldom	418	45.7
				Frequently	318	34.8
				Very Frequently	178	19.5
	No	391	30.0			
<b>Had nasty tricks played on</b>	Yes	881	67.5	Seldom	406	46.1
				Frequently	349	39.6
				Very Frequently	126	14.3
	No	424	32.5			
<b>Was threatened/bla ckmailed</b>	Yes	629	48.2	Seldom	357	56.8
				Frequently	177	28.1
				Very Frequently	95	15.1
	No	676	51.8			
<b>Been hit/beaten up</b>	Yes	717	54.9	Seldom	464	64.7
				Frequently	166	19.1
				Very Frequently	137	16.2
	No	588	45.1			

## 2: Frequency of Direct Bullying: Perpetrators

Bullying	Response	Count	%	Frequency			
Others nasty name	Yes	716	54.9	Seldom			
				Frequently			
				Very Frequently			
Belongings of	Yes	420	32.2	Seldom			
				Frequently			
				Very Frequently			
Stories about	Yes	612	46.9	Seldom			
				Frequently			
				Very Frequently			
Used nasty tricks on others	Yes	726	55.6	Seldom			
				Frequently			
				Very Frequently			
Threatened/blackm ailed others	Yes	493	37.8	Seldom			
				Frequently			
				Very Frequently			
Beaten up others	Yes	541	41.5	Seldom			
				Frequently			
				Very Frequently			
	No	589	45.1				
				No	885	67.8	
							No
No	576	44.4					
			No	812	62.2		
						No	764

	Count	%
	448	62.6
	148	20.7
	120	16.8
	301	71.7
	94	22.4
	25	6.0
	381	62.3
	153	25.0
	78	12.7
	458	63.1
	201	27.7
	67	9.2
	334	67.7
	106	21.5
	53	10.8
	354	65.4
	113	20.9
	74	13.7

the results of victims of indirect bullying are as follows: 15.9% said that other students refused to play with them, 15.9% said that other students refused to be their friend any more, 51.3 said that other students tell lies about them that are true and 24.4% said that other students deliberately spread rumors about them. Indirect bullying varied as indicated by the table 3 below.

11.3% of the students said that other students refused to be their friend any more, 11.3% said that other students tell lies about them that are true and 24.4% said that other students deliberately spread rumors about them. Indirect bullying varied as indicated by the table 3 below.

**Table 3: Prevalence and Frequency of Indirect Bullying: Victims**

Mode of Bullying	Response	Frequency	%	Frequency	Frequency	%
Other students refuse to play with you	Yes	147	11.3	Seldom	87	59.2
				Frequently	51	34.7
				Very Frequently	9	6.1
Other students refuse to be your friends	Yes	208	15.5	Seldom	140	67.3
				Frequently	40	19.2
				Very Frequently	28	13.5
Other students tell nasty stories about you that are not true	Yes	669	51.3	Seldom	486	72.6
				Frequently	124	18.5
				Very Frequently	59	8.8
Other students deliberately spoiling your game	Yes	318	24.4	Seldom	187	58.8
				Frequently	87	27.4
				Very Frequently	44	13.8
	No	1158	88.7			
	No	1097	84.1			
	No	636	48.7			
	No	987	75.6			

Results on the frequency of perpetrators of indirect bullying were as follows: 30% said that they have refused to play with other students, 43.0% said that they would not be friends with other students and 18.8% said that they spoil other students games. The frequency of *perpetrating varied from never to very frequently. In between there was seldom and frequent.* This is shown by table 4.

**Table 4: Frequency of Indirect Bullying: Perpetrators**

Mode	Response	Frequency	%
Refusing to Play with other students	Never	902	69.1.
	Seldom	268	20.5
	Frequently	62	4.8
	Very Frequently	73	5.6
Refusing to be friends with other students	Never	743	56.9
	Seldom	376	28.8
	Frequently	119	9.1
	Very Frequently	67	5.1
Telling nasty stories about other students that are not true	Never	922	70.7
	Seldom	272	20.8
	Frequently	63	4.8
	Very Frequently	48	3.7
Spoiling other students games	Never	1060	81.2
	Seldom	155	11.9
	Frequently	54	4.1
	Very Frequently	36	2.8

### 4.3 LOCATION OF BULLYING

Bullying took place in different places as identified by the students. These places were the play grounds, corridors, way to and from school and other places which the students did not identify. The play grounds formed the single most point where acts of bullying were carried out. Way to and from school was identified by day students. This is captured by table 5 below.

**Table 5: Location of Bullying**

<b>Mode of Bullying</b>	<b>Where it Happened</b>	<b>Frequency</b>	<b>%</b>
<b>Being called a bad/ nasty name</b>	Play Grounds	671	71
	Corridors	111	11.7
	Way to/from school	163	17.0
	Other Places	0	0
<b>Had Belongings taken</b>	Play Grounds	252	24.7
	Corridors	64	6.3
	Way to/from school	144	14.1
	Other Places	559	54.9
<b>Had lies told about him/her</b>	Play Grounds	234	25.6
	Corridors	104	11.4
	Way to/from school	181	19.8
	Other Places	395	43.2
<b>Had nasty tricks played on</b>	Play Grounds	221	25.1
	Corridors	134	15.2
	Way to/from school	131	14.9
	Other Places	395	44.8
<b>Was threatened/black mailed</b>	Play Grounds	153	24.3
	Corridors	153	24.3
	Way to/from school	117	18.6
	Other Places	206	32.8
<b>Was hit or beaten up</b>	Play Grounds	241	33.6
	Corridors	155	21.6
	Way to/from school	85	11.9
	Other Places	236	32.9

### 4.4 PERPETRATORS OF BULLYING

From the results, it was noted that most victims were bullied by members of their own school and class. These were then followed by students from higher class. This trend only changed when it came to threatening and beating other students which was done by students from the higher class. Only a small proportion of the victims were bullied by



students from other schools as shown by table 6.

**Table 6: The Class the Perpetrators Belonged To**

<b>Mode of Bullying</b>	<b>Class Perpetrator Belonged To</b>	<b>No</b>	<b>%</b>
<b>Called bad/nasty name</b>	Own Class	370	39.2
	Parallel Class	93	9.8
	Higher Class	306	32.4
	Lower Class	74	7.8
	Other School	102	10.8
<b>Had belongings taken</b>	Own Class	496	48.7
	Parallel Class	85	8.3
	Higher Class	368	36.1
	Lower Class	48	4.7
	Other School	22	2.2
<b>Lies told about him/her</b>	Own Class	418	45.7
	Parallel Class	174	19.0
	Higher Class	207	22.6
	Lower Class	54	5.9
	Other School	61	6.7
<b>Had nasty tricks played on</b>	Own Class	406	46.1
	Parallel Class	99	11.2
	Higher Class	189	21.5
	Lower Class	73	8.3
	Other School	114	12.9
<b>Was threatened/blackmailed</b>	Own Class	221	35.1
	Parallel Class	45	7.2
	Higher Class	301	47.9
	Lower Class	29	4.6
	Other School	33	5.2
<b>Was hit/beaten up</b>	Own Class	277	38.6
	Parallel Class	42	5.9
	Higher Class	299	41.7
	Lower Class	68	9.5
	Other School	31	4.3

#### **4.5 BULLYING BY AGE**

Results showed that there was no statistical difference in being a victim of direct bullying across the age groups. All ages had experienced bullying in their respective schools as shown by table 7.

**Table 7: Victims of Direct Bullying by Age**

Mode of bullying	Age	Yes		No		Total		Test
		No	%	No	%	NO	%	
been called bad or nasty names?	14-15	115	71.0	47	29.0	162	100	X <sup>2</sup> =3.718(a) df=3 p=0.294
	16-17	439	70.4	185	29.6	624	100	
	18-19	328	75.4	107	24.6	435	100	
	20+	63	75.4	21	24.6	84	100	
Have you had your belongings taken?	14-15	129	79.6	33	20.4	162	100	X <sup>2</sup> =3.052(a) df=3 p=.384
	16-17	487	78.0	137	22.0	624	100	
	18-19	332	76.3	103	23.7	435	100	
	20+	71	84.5	13	15.5	84	100	
Have you had lies told about you?	14-15	107	66.0	55	34.0	162	100	X <sup>2</sup> =2.244(a) df=3 p=.523
	16-17	439	70.4	185	29.6	624	100	
	18-19	305	70.1	130	29.9	435	100	
	20+	63	75.0	21	25.0	84	100	
Have you had nasty tricks played on you?	14-15	96	59.3	66	40.7	162	100	X <sup>2</sup> =10.209(a) df=3 P=.017
	16-17	414	66.3	210	33.7	624	100	
	18-19	315	72.4	120	27.6	435	100	
	20+	56	66.7	28	33.3	84	100	
Have you been threatened or blackmailed?	14-15	72	44.4	90	55.6	162	100	X <sup>2</sup> =2.360(a) df=3 P=.501
	16-17	309	49.5	315	50.5	624	100	
	18-19	212	48.7	223	51.3	435	100	
	20+	36	42.9	48	57.1	84	100	
Have you been beaten up or hit?	14-15	99	61.1	63	38.9	162	100	X <sup>2</sup> =4.222(a) df=3 P=.238
	16-17	342	54.8	282	45.2	624	100	
	18-19	227	52.2%	208	47.8%	435	100.0	
	20+	49	58.3%	35	41.7%	84	100.0	

Being a victim of indirect bullying by age did also not have a statistical significance as a number of cells had a count less than the expected thus making the p value invalid. This is shown by table 8.

**Table 8: Victims of indirect bullying by age**

Mode of bullying	Age	Yes		No		Total		Test
		No	%	No	%	N0	%	
other students refused to play with you?	14-15	16	9.9	146	90.1	162	100	$X^2=8.353(a)$ $df=3$ $p=.039$
	16-17	57	9.1	567	90.9	624	100	
	18-19	64	14.7	371	85.3	435	100	
	20+	10	11.9	74	88.1	84	100	
other students said they will not be your friend anymore	14-15	40	26.8	109	73.2	149	100	$X^2=15.450(a)$ $df=3$ $P=.001$
	16-17	81	14.4	482	85.6	563	100	
	18-19	68	16.6	341	83.4	409	100	
	20+	19	24.1	60	75.9	79	100	
other students told nasty stories that were not true about you?	14-15	88	56.4	68	43.6	156	100	$X^2=12.182(a)$ $df=3$ $P=.007$
	16-17	293	51.7	274	48.3	567	100	
	18-19	255	62.0	156	38.0	411	100	
	20+	33	47.8	36	52.2	69	100	
other students deliberately spoil your game?	14-15	38	25.9	109	74.1	147	100	$X^2=9.857(a)$ $df=3$ $P=.020$
	16-17	128	24.1	403	75.9	531	100	
	18-19	126	32.5	262	67.5	388	100	
	20+	26	34.7	49	65.3	75	100.0	

Perpetration of bullying by age also showed no statistical significant difference. These results are shown by table 9.

**Table 9: Perpetrators of Direct Bullying by Age**

Mode of bullying	Age	Yes		No		Total		Test
		No	%	No	%	N0	%	
called any other student(S) bad or nasty names	14-15	92	56.8	70	43.2	162	100	X <sup>2</sup> =9.665(a) df=3 P=.022
	16-17	323	51.8	301	48.2	624	100	
	18-19	243	55.9	192	44.1	435	100	
	20+	58	69.0	26	31.0	84	100	
Have you taken belongings from any other student(s)	14-15	53	32.7	109	67.3	162	100	X <sup>2</sup> =14.076(a) df=3 P=.003
	16-17	198	31.7	426	68.3	624	100	
	18-19	127	29.2	308	70.8	435	100	
	20+	42	50.0	42	50.0	84	100	
Have you told lies about other students	14-15	80	49.4	82	50.6	162	100	X <sup>2</sup> =6.807(a) df=3 P=.078
	16-17	304	48.7	320	51.3	624	100	
	18-19	183	42.1	252	57.9	435	100	
	20+	45	53.6	39	46.4	84	100	
Have you played nasty tricks on other students?	14-15	93	57.4	69	42.6	162	100	X <sup>2</sup> =2.741(a) df=3 P=.433
	16-17	357	57.2	267	42.8	624	100	
	18-19	228	52.4	207	47.6	435	100	
	20+	48	57.1	36	42.9	84	100	
Have you threatened or blackmailed any student	14-15	53	32.7	109	67.3	162	100	X <sup>2</sup> =5.315(a) df=3 P=.150
	16-17	253	40.5	371	59.5	624	100	
	18-19	153	35.2	282	64.8	435	100	
	20+	34	40.5	50	59.5	84	100	
Have you hit or beaten up another students	14-15	57	35.2	105	64.8	162	100	X <sup>2</sup> =5.579(a) df=3 P=.134
	16-17	269	43.1	355	56.9	624	100	
	18-19	174	40.0	261	60.0	435	100	
	20+	41	48.8	43	51.2	84	100	

There was no statistical significance among the perpetrators of indirect bullying by age as shown by table 10.

**Table 10: Perpetrators of indirect bullying by age**

Mode of bullying	Age	Frequency of Responses										Test
		Never		Seldom		Frequently		Very frequently		Total		
		No	%	No	%	No	%	No	%	No	%	
How frequently have you refused to play with other students?	14-15	114	70.4	32	19.8	1	.6	15	9.3	162	100	$X^2=26.540(a)$ df=9 P=.002
	16-17	434	69.6	137	22.0	30	.6	23	9.3	624	100	
	18-19	287	66.0	87	20.0	30	6.9	31	7.1	435	100	
	20+	67	79.8	12	14.3	1	1.2	4	4.8	84	100	
How frequently have you said you would not be friends with other students?	14-15	62	44.3	49	35.0	20	14.3	9	6.4	140	100	$X^2=13.731(a)$ df=9 P=.132
	16-17	247	50.5	162	33.1	52	10.6	28	5.7	489	100	
	18-19	139	39.4	145	41.1	41	11.6	28	7.9	353	100	
	20+	31	52.5	20	33.9	6	10.2	2	3.4	59	100	
How frequently do you tell nasty stories about other students that are not true?	14-15	86	61.9	32	23.0	10	7.2	11	7.9	139	100	$X^2=13.279(a)$ df=9 P=.150
	16-17	300	62.4	139	28.9	26	5.4	16	3.3	481	100	
	18-19	219	63.1	88	25.4	25	7.2	15	4.3	347	100	
	20+	38	64.4	13	22.0	2	3.4	6	10.2	59	100	
How frequently do you spoil other students games	14-15	99	73.9	19	14.2	7	5.2	9	6.7	134	100	$X^2=43.104(a)$ df=9 P=.000
	16-17	364	76.5	83	17.4	12	2.5	17	3.6	476	100	
	18-19	284	78.2	46	12.7	23	6.3	10	2.8	363	100	
	20+	42	68.9	7	11.5	12	19.7	0	.0	61	100	

**4.6 BULLYING BY FORM**

Results showed that victims of bullying per class varied depending on the mode of bullying. There was statistical significance in the following modes of bullying: having belongings taken for the form 2 (p=0.002), lies told about self for the form 3 (p=0.002), nasty tricks played on one for the form 3 (P=0.000), being threatened/blackmailed for the form2 (p 0.000) and being hit/beaten for the form 2 (p=0.004). The results are shown by table 11 below.

**Table 11: Mode of Bullying By Form: Victims**

MODE	Res pon se	Form 1		Form 2		Form 3		Form 4		Total		Test
		No	%	No	%	No	%	No	%	No	%	
Been called a bad/nasty name	Yes	132	66.0	414	72.0	294	75.6	105	74.5	945	72.4	$X^2= 6.416$ df=3 p=0.093
	No	68	34.0	161	28.0	95	24.4	36	25.5	360	27.6	
Had belongings taken	Yes	150	75.0	477	83.0	292	75.1	100	70.9	1019	78.1	$X^2= 15.388$ df=3 p=0.002
	No	50	25.0	98	17.0	97	24.9	41	29.1	286	21.9	
Lies told about you	Yes	146	73.0	371	64.5	293	75.3	104	73.8	914	70	$X^2= 15.279$ df=3 p=0.002
	No	54	27.0	204	35.5	96	24.7	37	26.2	391	30.0	
Nasty tricks played on you	Yes	103	51.5	389	67.7	298	76.6	91	64.5	881	67.5	$X^2= 38.620$ df=3 p=0.000
	No	97	48.5	186	32.3	91	23.4	50	35.5	424	32.5	
Was threatened/blackmailed	Yes	74	37.0	310	53.9	178	45.8	67	47.5	629	48.2	$X^2= 18.520$ df=3 p=0.000
	No	126	63.0	265	46.1	211	54.2	74	52.5	676	51.8	
Was Hit/beaten up	Yes	103	51.5	344	59.8	189	48.6	81	57.4	717	54.9	$X^2= 13.203$ df=3 p=0.004
	No	97	48.5	231	40.2	200	51.4	60	42.6	588	45.1	

There was statistical significance in two modes: other students telling nasty stories about you for the form 2 (p=0.000) and other students deliberately spoiling ones games for the form 2 (p=0.000). This is shown by table 12.

**Table 12: Mode of Bullying By Form: Victims of indirect bullying**

Mode of bullying	Response	Forms										Test
		Form 1		Form 2		Form 3		Form 4		Total		
		No.	%	No.	%	No.	%	No.	%	No.	%	
other students refused to play with you?	Yes	24	16.3	60	40.8	49	33.3	14	9.5	147	100	$X^2=1.446$ df=3 P=.695
	No	176	15.2	515	44.5	340	29.4	127	11.0	1158	100	
other students said they will not be your friend anymore	Yes	25	12.0	89	42.8	65	31.3	29	13.9	208	100	$X^2=3.201$ df=3 P=.362
	No	151	15.2	438	44.2	299	30.1	104	10.5	992	100	
other students told nasty stories that were not true about you?	Yes	93	13.9	257	38.4	237	35.4	82	12.3	669	100.	$X^2=31.622$ df=3 P=.000(*)
	No	98	18.4	265	49.6	118	22.1	53	9.9	534	100	
other students deliberately spoil your game?	Yes	30	9.4	129	40.6	130	40.9	29	9.1	318	100	$X^2=29.107$ df=3 P=.000(*)
	No	147	17.9	360	43.7	216	26.2	100	12.2	823	100	

The following modes of bullying had statistical significance in perpetrators of bullying by form: calling a nasty name for the form 3 ( $p=0.002$ ), playing nasty tricks on others for the form 1 ( $p=0.002$ ) threatening/blackmailing others for the form 3 ( $p=0.035$  and hitting/beating others for the forms 2 and 4 ( $p=0.012$ ) as shown by table 13.

**Table 13: Mode of Bullying By Form: Perpetrators of direct bullying**

MODE	Res pon se	Form 1		Form 2		Form 3		Form 4		Total		Test
		No	%	No	%	No	%	No	%	No	%	
Calling a bad/nasty name	Yes	86	43	335	58.3	219	56.3	76	53.3	716	54.9	$\chi^2= 14.423$ $df=3$ $p=0.002$
	No	114	57	240	41.7	170	43.7	65	46.1	589	45.1	
Took belongings of others	Yes	49	24.5	186	32.3	135	34.7	50	35.5	420	32.2	$\chi^2= 7.243$ $df=3$ $p=0.065$
	No	151	75.5	386	67.7	254	65.3	91	64.5	885	67.8	
Told lies about others	Yes	91	45.5	285	49.6	176	45.2	60	42.6	612	46.9	$\chi^2= 3.296$ $df=3$ $p=0.348$
	No	109	54.5	290	50.4	213	54.8	81	57.4	693	53.1	
Played nasty tricks on others	Yes	117	58.5	327	56.9	218	56.0	64.0	45.4	726	55.6	$\chi^2= 7.042$ $df=3$ $p=0.002$
	No	83	41.5	248	43.1	171	44.0	77	54.6	579	44.4	
Threatened/black mailed another	Yes	60	30.0	227	39.5	159	40.9	47	33.3	493	37.8	$\chi^2= 8.626$ $df=3$ $p=0.035$
	No	140	70.0	348	60.5	230	59.1	94	66.7	812	62.2	
Hit/beat up another	Yes	64	32.0	258	44.9	156	40.1	63	44.7	541	41.5	$\chi^2= 11.027$ $df=3$ $p=0.012$
	No	136	68.0	317	55.1	233	59.9	78	55.3	764	58.5	

Perpetration of indirect bullying by form (table 14) produced statistical significant in all the modes as follows: refused to play with other students ( $p=0.026$ ), refused to be friends with other students again ( $p=0.000$ ), telling nasty stories about other that are not true ( $p=0.002$ ) and spoiling other students game ( $p=0.013$ ). All these are mainly on the form 2.



**Table 14: Mode of Bullying By Form: Perpetrators of indirect bullying**

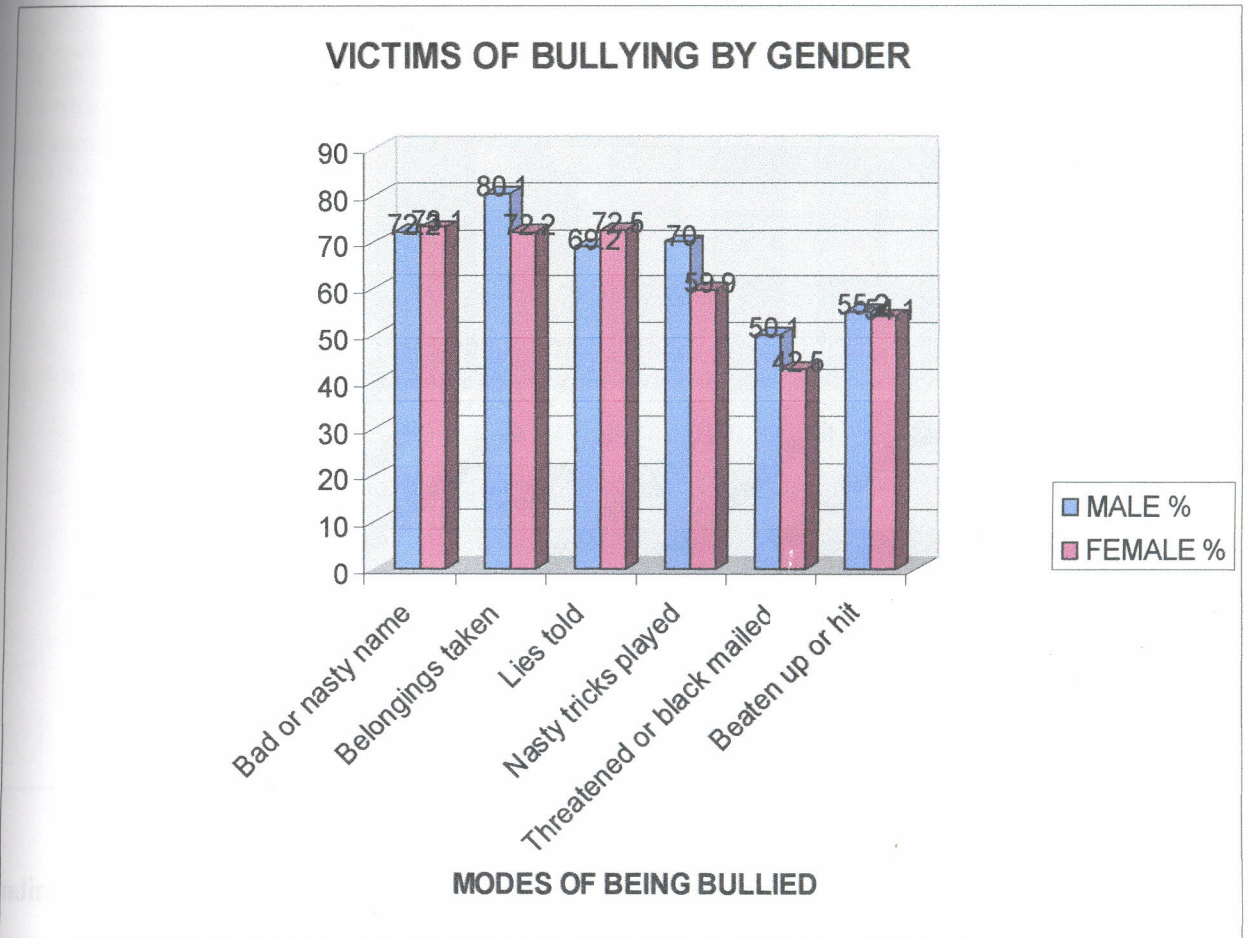
Mode of bullying	Responses	Form										Test
		Form 1		Form 2		Form 3		Form 4		Total		
		No.	%	No.	%	No.	%	No.	%	No.	%	
refused to play with other students?	Never	146	16.2	398	44.1	251	27.8	107	11.9	902	100	$X^2=18.874$ df=9 P=.026(*)
	Seldom	37	13.8	118	44.0	96	35.8	17	6.3	268	100	
	Frequently	6	9.7	22	35.5	23	37.1	11	17.7	62	100	
	Very frequently	11	15.1	37	50.7	19	26.0	6	8.2	73	100	
said you would not be friends with other students?	Never	71	14.8	230	48.0	140	29.2	38	7.9	479	100	$X^2=33.698$ df=9 P=.000(*)
	Seldom	57	15.2	149	39.6	113	30.1	57	15.2	376	100	
	Frequently	14	11.8	60	50.4	40	33.6	5	4.2	119	100	
	Very frequently	16	23.9	21	31.3	16	23.9	14	20.9	67	100	
tell nasty stories about other students that are not true?	Never	111	17.3	262	40.7	198	30.8	72	11.2	643	100	$X^2=25.939$ df=9 P=.002(*)
	Seldom	33	12.1	129	47.4	91	33.5	19	7.0	272	100	
	Frequently	6	9.5	37	58.7	15	23.8	5	7.9	63	100	
	Very frequently	10	20.8	17	35.4	10	20.8	11	22.9	48	100	
do you spoil other students games	Never	124	15.7	343	43.5	227	28.8	95	12.0	789	100	$X^2=20.923$ df=9 P=.013(*)
	Seldom	20	12.9	72	46.5	48	31.0	15	9.7	155	100	
	Frequently	2	3.7	28	51.9	24	44.4	0	.0	54	100	
	Very frequently	5	13.9	20	55.6	10	27.8	1	2.8	36	100	

**4.7 BULLYING AND GENDER**

Boys are leading in terms of having their belongings taken at 80.1% compared to the girls at 72.2%. Boys also are played nasty tricks on more than the girls at 70.0% for boys and 59.9% for girls. The results showed that girls tell more lies about each other compared to the boys though the difference is little as shown by figure 4. The p value for the different

modes are as follows: calling a nasty name ( $p=0.752$ ), having belongings taken ( $p=0.003$ ), lies told about self ( $p=0.266$ ), nasty tricks played on one ( $p=0.001$ ), threatened/blackmailed ( $p=0.017$ ) while beaten or hit ( $p=0.733$ ). The modes with statistical significance are: having belongings taken ( $p=0.003$ ) for the males, nasty tricks played on one ( $p=0.001$ ) for the males, being threatened/blackmailed ( $p=0.017$ ) for the males. The other modes have no statistical significance.

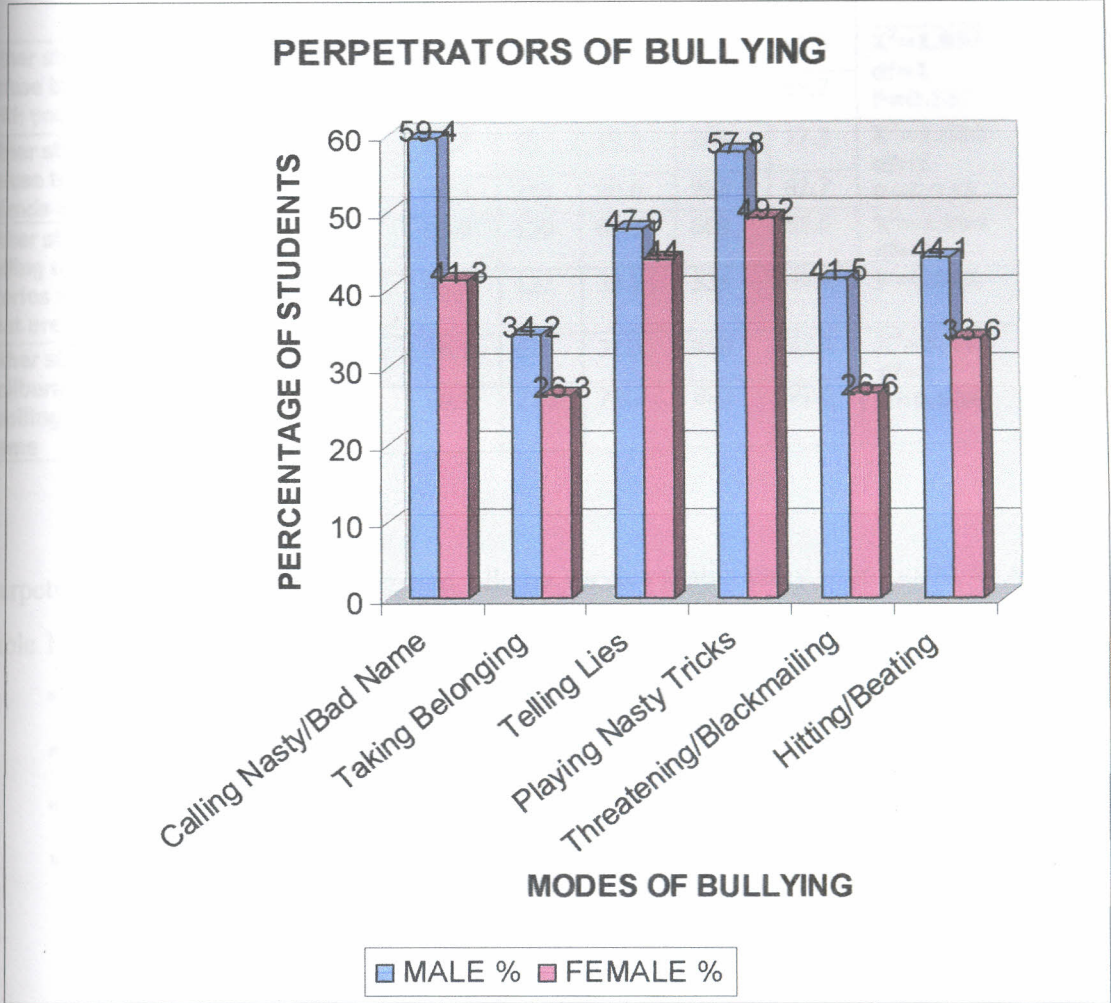
Figure 4: Victims of Direct Bullying By Gender



Results of perpetration of direct bullying show the following p values: calling others a nasty name ( $p=0.000$ ) statistically important for the boys, taking belongings from others ( $p=0.009$ ) again statistically important for the boys, telling lies about others ( $p=0.231$ ) no statistical significance, threatening others ( $p=0.000$ ) highly significant for the boys and

beating others ( $p=0.001$ ) for the boys. This is shown by figure 5.

Figure 5: Perpetrators of Direct Bullying By Gender



Indirect forms of bullying were also reported by both genders either as a victim or a perpetrator. Being a victim produced statistical significance in only two modes: other students telling nasty stories about an individual that are not true ( $p=0.048$ ) for the boys and other students deliberately spoiling ones game ( $p=0.004$ ). The other two modes were not statistically significant as shown by table 15.

TABLE 15: VICTIMS OF INDIRECT BULLYING BY GENDER

Mode of Bullying	Response	Gender						Test
		Males		Females		Total		
		No	%	No	%	No	%	
Other students refuse to play with you	Yes	117	12.0	30	9.2	147	11.3	<b>X<sup>2</sup>=1.907</b> <b>df=1</b> <b>P=0.167</b>
	No	861	88.0	297	90.8	1158	88.7	
Other students refuse to be your friends any more	Yes	149	16.7	59	19.2	208	17.3	<b>X<sup>2</sup>=1.023</b> <b>df=1</b> <b>P=0.312</b>
	No	744	83.3	248	80.8	992	82.7	
Other students telling nasty stories about you that are no true	Yes	476	53.9	139	60.3	669	55.6	<b>X<sup>2</sup>=3.904</b> <b>df=1</b> <b>P=0.048</b>
	No	407	46.1	127	39.7	534	44.4	
Other students deliberately spoiling your game	Yes	256	30.1	61	21.3	318	27.9	<b>X<sup>2</sup>=8.349</b> <b>df=1</b> <b>P=0.004</b>
	No	597	69.9	226	78.7	823	72.1	

Perpetration of indirect bullying had all the modes statistically significant as shown in table 16;

- Refusing to play with others (p=0.000) for the boys
- Refusing to be friends with others (p=0.000) for the girls
- Telling nasty stories about others (p=0.001) for the boys
- Spoiling other students games (p=0.005) for the boys.

**Table 16: Perpetrators of Indirect Bullying by Gender**

Mode of Bullying	Response	Gender						Test
		Males		Females		Total		
		No	%	No	%	No	%	
Refusing to Play with other students	Never	656	67.1	246	75.2	902	69.1	<b>X<sup>2</sup>=92.783</b> <b>df=6</b> <b>P=0.000</b>
	Seldom	221	22.6	47	14.4	268	20.5	
	Frequently	50	5.1	12	3.7	62	4.8	
	Very Frequently	51	5.2	22	6.7	73	5.6	
Refusing to be friends with other students	Never	379	48.2	100	39.2	479	46.0	<b>X<sup>2</sup>=42.911</b> <b>df=6</b> <b>P=0.000</b>
	Seldom	281	35.8	95	37.3	376	36.1	
	Frequently	90	11.5	29	11.4	119	11.4	
	Very Frequently	36	4.6	31	12.2	67	6.4	
Telling nasty stories about others that are not true	Never	462	59.5	181	72.7	643	62.7	<b>X<sup>2</sup>=22.642</b> <b>df=6</b> <b>P=0.001</b>
	Seldom	223	28.7	49	19.7	272	26.5	
	Frequently	55	7.1	8	3.2	63	6.1	
	Very Frequently	37	4.8	11	4.4	48	4.7	
Spoiling other students games	Never	578	73.7	211	84.4	789	76.3	<b>X<sup>2</sup>=6.034</b> <b>df=6</b> <b>P=0.005</b>
	Seldom	127	16.2	28	11.2	155	15.0	
	Frequently	47	6.0	7	2.8	54	5.2	
	Very Frequently	32	4.1	4	1.6	36	3.5	

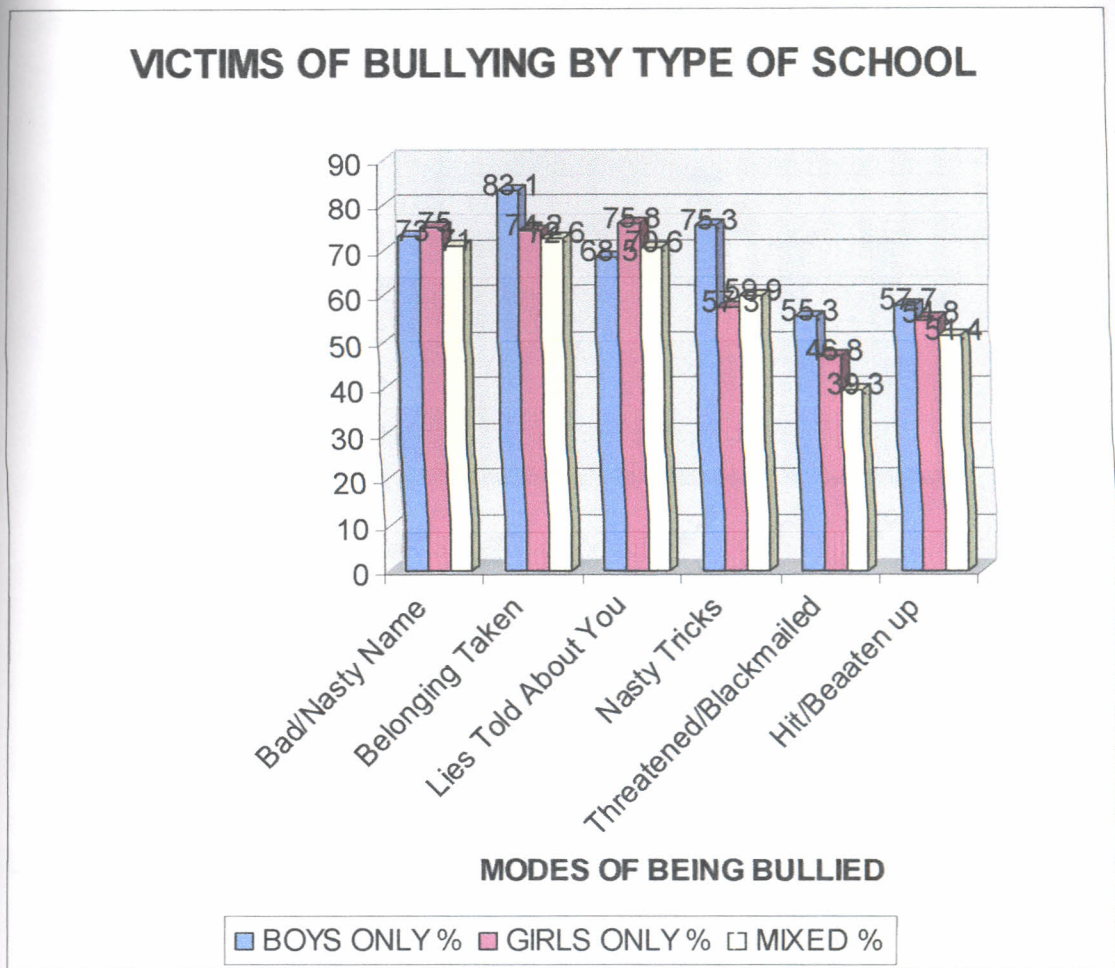
#### 4.8 TYPE OF SCHOOL AND BULLYING

Three categories of school were researched on. These are: a Boys School, a Girls School and two Mixed Schools. .Students in these schools under went various modes of bullying as shown in figure6.

As victims of direct bullying the p values are as follows:

- Being called a nasty name (p=0.594) not statistically significant
- *Having belongings taken (p=0.000) statistically significant for the Boys school*
- Having nasty lies told about self (p=0.248) which is not statistically significant
- Having nasty tricks played on one (p=0.000) statistically significant for the Boys school
- *Threatened or blackmailed (p=0.000) significant for the Boys school*
- being hit or beaten (p=0.093) which is not statistically significant

Figure 6: Victims of direct bullying by school Type



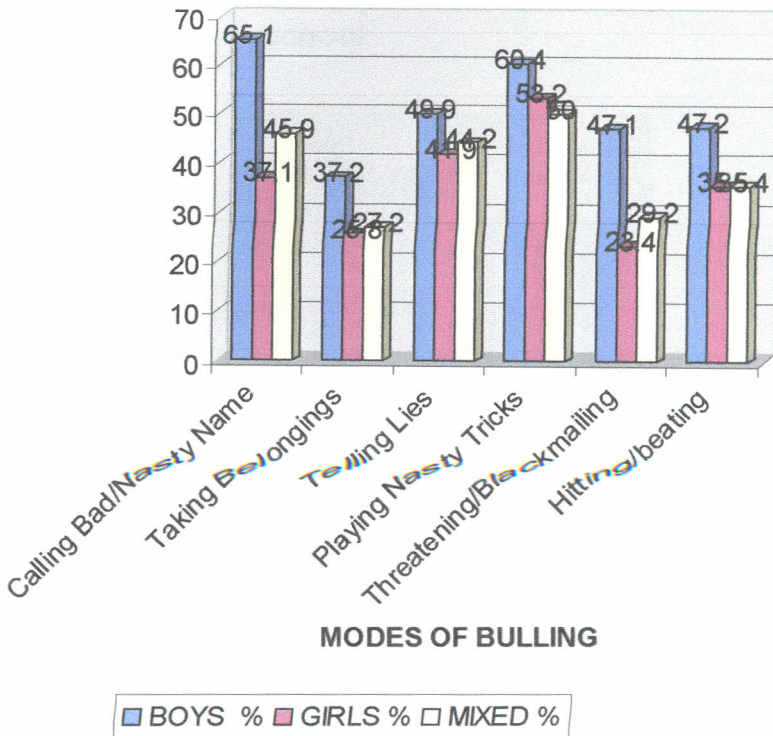
Results on perpetrators of bullying acts show that the Boys School Only led in all but one categories of bullying as shown in figure. The p values were as follows:

- calling others a bad or nasty name (0.000)
- taking belongings from others (p=0.000)
- telling lies about others (p=0.073) not statistically significant
- playing nasty tricks on others (p=0.001)
- threatening or blackmailing others (p=0.000)
- hitting or beating others (0.000)

All the modes were statistically significant for the boys' school apart from telling nasty tricks.

Figure 7: Perpetrators of Bullying By School Type

PERPETRATORS OF BULLYING BY SCHOOL TYPE

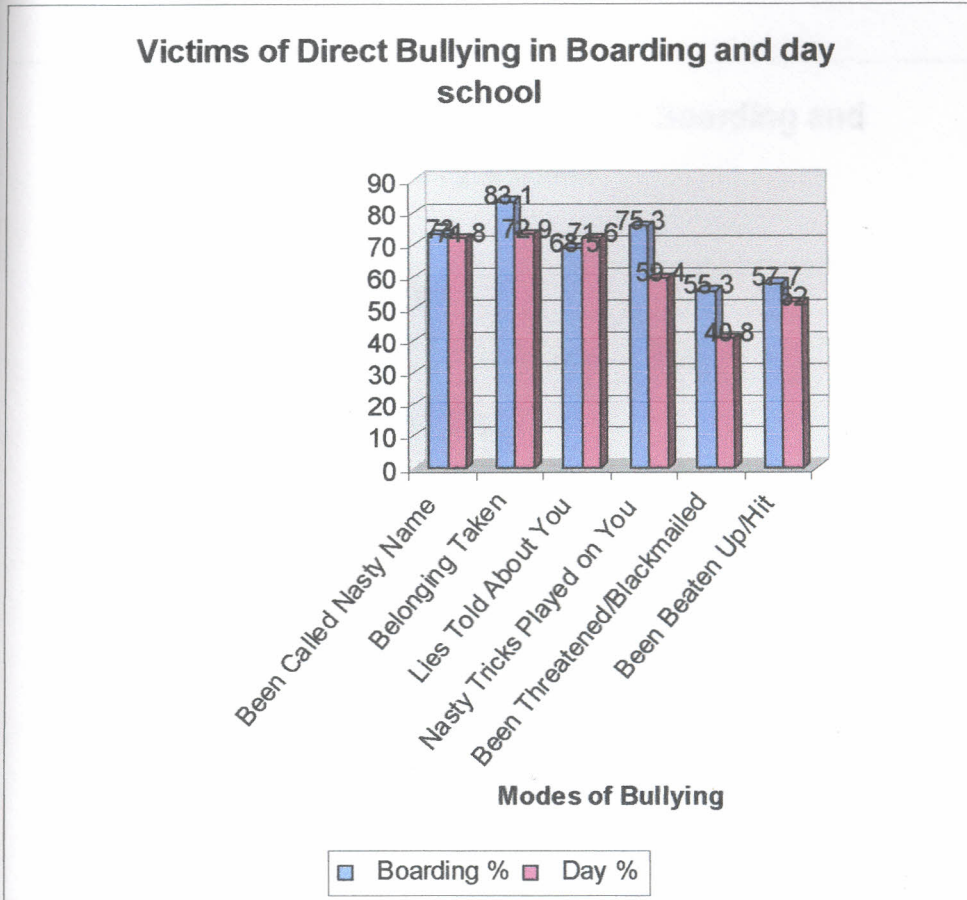


4.9 BOARDING AND DAY SCHOOLS AND BULLYING

The two categories of schools experience bullying as shown by figure 8 below. The p values for the victims of direct bullying:

- Being called a nasty name ( $p=0.620$ ) not statistically significant
- Having belongings taken ( $p=0.000$ ) statistically significant for Boarding school
- Having lies told about self ( $p=0.220$ ) which is not statistically significant
- Having nasty tricks played on one ( $p=0.000$ ) statistically significant for the Boarding school
- Threatened or blackmailed ( $p=0.000$ ) significant for the Boarding school
- being hit or beaten ( $p=0.039$ ) statistically significant for the Boarding school

**Figure 8: Victims of Direct Bullying in Boarding and Day Schools**

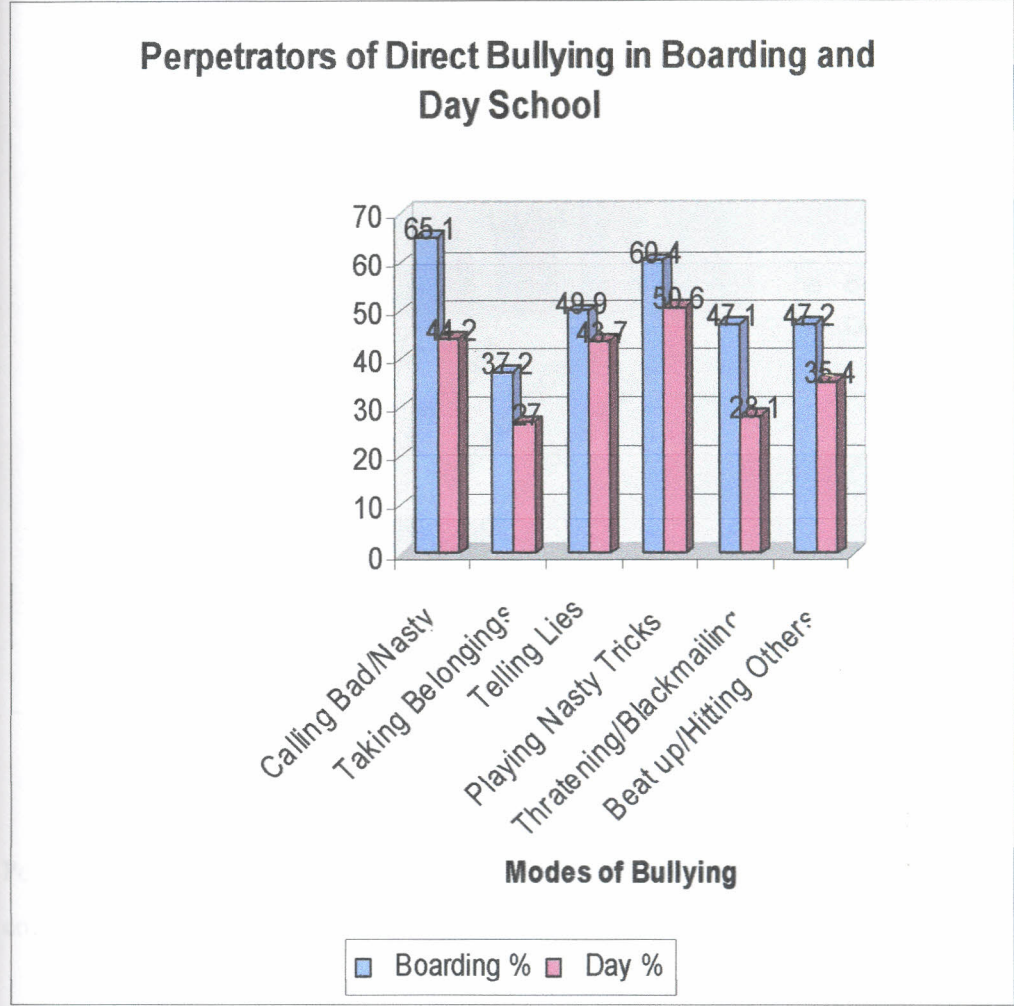


Perpetration of bullying (figure 9) was highly statistically significant in boarding school as shown by the following p values.

- calling others a bad or nasty name (0.000)
- taking belongings from others (p=0.000)
- telling lies about others (p=0.025)
- playing nasty tricks on others (p=0.000)
- threatening or blackmailing others (p=0.000)
- hitting or beating others (0.000)



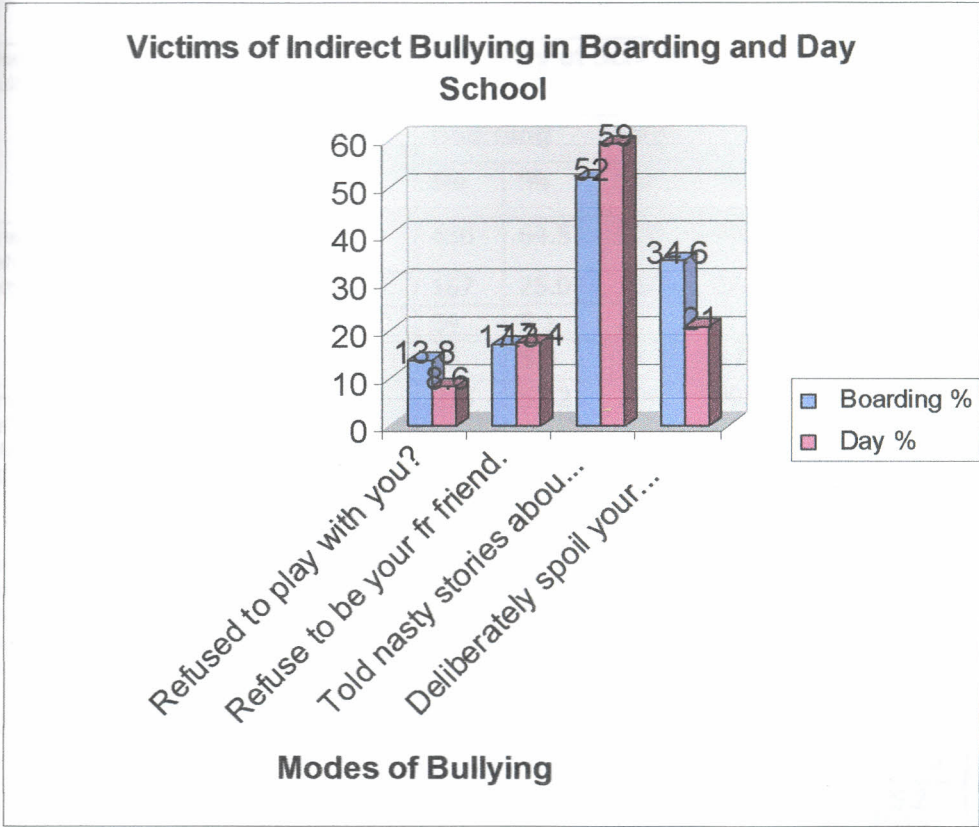
**Figure 9: Perpetrators of Direct Bullying in Boarding and Day Schools**



Victims of indirect bullying are shown by figure 10 and the p values are as follows

- other students refusing to play with you (p=0.003) for the boarding
- other students refusing to be your friends (p=0.979) not statistically significant
- other students telling nasty stories about you that are not true (p=0.015) for the Day school
- Other students spoil your game deliberately (p=0.000) for the boarding school

**Figure 10: Victims of Indirect Bullying in Boarding and Day Schools**



Perpetration of indirect bullying was highly statistically significant in boarding schools compared to day schools. The p values are as shown by table 17.

- Refusing to play with others ( $p=0.000$ )
- Refusing to be friends with others ( $p=0.000$ )
- Telling nasty stories about others ( $p=0.001$ )
- Spoiling other students games ( $p=0.005$ ).

**Table 17: Perpetrators of Indirect Bullying and Category of School**

Mode of Bullying	Responses	Category of School						Test
		Boarding		Day		Total		
		No	%	No	%	No	%	
Frequency of refusing to play with others	Never	430	64.5	472	74.0	902	69.1	<b>X<sup>2</sup>=18.168</b> <b>df=3</b> <b>P=0.000</b>
	Seldom	167	25.0	101	15.8	268	20.5	
	Frequently	34	5.1	28	4.4	62	4.8	
	Very frequently	36	5.4	37	5.8	73	5.6	
Frequency of refusing to be friends with others any more	Never	275	51.2	204	40.5	479	46.0	<b>X<sup>2</sup>=34.621</b> <b>df=3</b> <b>P=0.000</b>
	Seldom	189	35.2	187	37.1	376	36.1	
	Frequently	60	11.2	59	11.7	119	11.4	
	Very frequently	13	2.4	54	10.7	67	6.4	
Frequency of telling nasty stories that are not true about others	Never	288	54.1	355	71.9	643	62.7	<b>X<sup>2</sup>=40.025</b> <b>df=3</b> <b>P=0.000</b>
	Seldom	172	32.3	100	20.2	272	26.5	
	Frequently	47	8.8	16	3.2	63	6.1	
	Very frequently	25	4.7	23	4.7	48	4.7	
Frequency of spoiling other students games	Never	366	68.4	423	84.8	789	76.3	<b>X<sup>2</sup>=40.481</b> <b>df=3</b> <b>P=0.000</b>
	Seldom	104	19.4	51	10.2	155	15.0	
	Frequently	36	6.7	18	3.6	54	5.2	
	Very frequently	29	5.4	7	1.4	36	3.5	

#### 4.10 BULLYING AND PSYCHOLOGICAL DISORDERS

Bullying led to psychological distress though the magnitude varied depending on the type/mode of bullying. The psychological effects were measured as: showing no distress, having evidence of distress and having severe psychological distress. Victims of direct bullying showed distress depending on the mode and this is shown by table 18. Modes with statistical significance were:

- Being called a nasty name ( $p=0.000$ )
- Having lies told about self ( $p=0.009$ )
- Having nasty tricks played on one ( $p=0.000$ )
- being hit or beaten ( $p=0.000$ )

**Table 18: Victims of direct bullying and their psychological effects**

Mode of bullying	Response	Current Mental Health Status								Test
		No Distress		Evidence of Distress		Severe Psychological Distress		Total		
		No	%	No	%	No	%	No	%	
Called by other students bad/nasty names	Yes	514	55.7	310	33.8	94	10.2	918	100	$\chi^2=19.572$ df=2 P=0.000
	No	185	53.8	93	27.0	66	19.2	344	100	
Had belongings taken by others students	Yes	550	55.8	313	31.7	123	12.5	986	100	$\chi^2=0.323$ df=2 P=0.851
	No	149	54.0	90	32.6	37	13.4	276	100	
Had lies told about self	Yes	506	57.6	257	29.3	115	13.1	878	100	$\chi^2=9.426$ df=2 P=0.009
	No	193	50.3	146	38.0	45	11.7	384	100	
Had nasty tricks played on by others	Yes	453	53.1	304	35.8	91	10.7	848	100	$\chi^2=21.950$ df=2 P=0.000
	No	246	59.2	99	23.9	69	16.7	414	100	
Was threatened/blackmailed by other students	Yes	337	56.6	190	31.9	68	11.4	595	100	$\chi^2=1.705$ df=2 P=0.426
	No	362	54.3	213	31.9	92	13.8	667	100	
Was Hit or beaten up by other students	Yes	331	48.1	261	37.9	96	14.0	688	100	$\chi^2=33.473$ df=2 P=0.000
	No	368	64.1	142	24.7	64	11.2	574	100	

Some students who perpetrated direct bullying suffered psychological distress as shown by table 19 below. The modes that had statistical significance are:

- calling others a bad or nasty name (0.000)
- telling lies about others (p=0.027)
- hitting or beating others (0.002)

**Table 19: PERPETRATORS OF DIRECT BULLYING AND THEIR PSYCHOLOGICAL EFFECTS**

Mode Bullying	Response	Current Mental Health Status								Test
		No Distress		Evidence of Distress		Severe Psychological Distress		Total		
		No	%	No	%	No	%	No	%	
Called other students bad/nasty names	Yes	426	61.3	201	29.1	64	9.3	691	100	$X^2=28.741$ df=2 P=0.000
	No	273	47.8	202	35.3	96	18.8	571	100	
Taking belongings from others	Yes	239	60.2	113	28.5	45	11.3	397	100	$X^2=5.431$ df=2 P=0.066
	No	460	53.2	290	33.5	115	13.3	865	100	
Told lies about others	Yes	334	57.3	165	28.4	83	14.3	582	100	$X^2=7.257$ df=2 P=0.027
	No	365	56.7	238	35.0	77	11.3	680	100	
Played nasty tricks on others	Yes	369	52.5	237	33.7	97	13.8	703	100	$X^2=5.551$ df=2 P=0.062
	No	330	59.0	166	29.7	63	11.3	559	100	
Threatened/blackmailed other students	Yes	269	56.6	147	30.9	59	12.4	475	100	$X^2=0.484$ df=2 P=0.785
	No	430	54.6	256	35.5	101	12.8	787	100	
Hit or beat up another student	Yes	268	51.5	195	37.5	57	11.0	520	100	$X^2=13.004$ df=2 P=0.002
	No	431	58.1	208	28.0	103	13.9	742	100	

All victims of indirect bullying had psychological distress and these modes had statistical significance. This is shown by table 20.

**Table 20: Psychological effects of victims of Indirect Bullying**

Mode of bullying	Responses	Current Mental Health Status								Test
		No Distress		Evidence of Distress		Severe Psychological Distress		Total		
		No	%	No	%	No	%	No	%	
Other students refuse to play with you	Yes	87	65.4	35	26.3	11	8.3	133	100	$\chi^2=6.445$ df=2 P=0.040
	No	612	55.4	368	32.6	149	13.2	1129	100	
Other students refusing to be your friends any more	Yes	96	49.0	80	40.8	20	10.2	196	100	$\chi^2=7.107$ df=2 P=0.029
	No	551	56.8	301	31.0	118	12.2	970	100	
Other students told nasty stories about you that were not true	Yes	330	50.6	237	36.3	85	13.0	652	100	$\chi^2=6.628$ df=2 P=0.036
	No	294	56.5	152	29.2	74	14.2	520	100	
Other students deliberately spoiling your game	Yes	156	51.3	100	32.9	48	15.8	304	100	$\chi^2=10.481$ df=2 P=0.005
	No	440	54.5	295	36.5	75	9.0	808	100	

Those who perpetrate indirect bullying suffer psychological distress. It is only the spoiling of other students game where there was no statistical significance (p= 0.419). The others have statistical significance as shown by table 21.

**Table 21: Psychological effects of Perpetrators of Indirect Bullying**

Mode of Bullying	Response	Current Mental Health Status								Test
		No Distress		Evidence of Distress		Severe Psychological Distress		Total		
		No	%	No	%	No	%	No	%	
Refused to play with other students	Never	472	54.3	260	29.6	137	15.8	869	100	$\chi^2=92.783$ df=6 P=0.000
	Seldom	185	70.6	74	28.2	3	1.1	252	100	
	Frequently	19	31.1	36	63.9	3	4.9	61	100	
	Very Frequently	23	32.9	30	42.9	17	24.3	70	100	
Refused to be friends with other students	Never	231	48.7	193	40.7	50	10.5	474	100	$\chi^2=42.911$ df=6 P=0.000
	Seldom	209	57.4	100	27.5	55	15.1	364	100	
	Frequently	77	68.1	21	18.6	15	13.2	113	100	
	Very frequently	24	35.8	37	55.2	6	9.0	67	100	
Told nasty stories about others that are not true	Never	305	48.2	251	39.7	77	12.2	633	100	$\chi^2=22.642$ df=6 P=0.001
	Seldom	157	58.5	77	28.6	35	13.0	269	100	
	Frequently	34	57.6	19	32.2	6	10.1	59	100	
	Very frequently	32	76.1	5	11.9	5	11.9	42	100	
Spoiling other students games	Never	420	54.6	268	34.9	81	10.5	769	100	$\chi^2=6.034$ df=6 P=0.419
	Seldom	89	55.8	44	28.6	21	13.6	154	100	
	Frequently	24	45.3	22	45.5	7	13.2	53	100	
	Very frequently	23	63.9	10	27.8	3	8.3	36	100	

**4.11 PSYCHOLOGICAL DISTRESS ASSOCIATED WITH BULLYING AND AGE**

Victims of direct bullying suffered distress depending on the age and mode. Statistical significance was noted in the following modes and ages and as shown by table 22a.

1. Being called a nasty name; 14-15 (p=0.001) and 16-17 (p=0.000)
2. Having belongings taken; 14-15 (p=0.003)

3. Having lies told about self; 14-15 ( $p=0.000$ ), 16-16 ( $p=0.044$ ) and 18-19 ( $p=0.003$ )
4. Having nasty tricks played on one, 14-15 ( $p=0.011$ ), 16-17 ( $p=0.000$ ) and 18-19 ( $p=0.017$ )
5. Threatened or blackmailed; 14-15 ( $p=0.049$ )
6. Being hit or beaten; 16-17 ( $p=0.003$ ) and 18-19 ( $p=0.000$ )

**Table 22a: Psychological effects of victims of direct bullying by age**

Mode of bullying	Age	Response	Current Mental Health Status (GHQ)								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No	%	No	%	No	%	No	%	
Have you been called bad or nasty names?	14-15	Yes	64	55.7	43	37.4	8	7.0	115	100.0	$X^2=13.403$ df=2 P=.001(*)
		No	18	39.1	15	32.6	13	28.3	46	100.0	
	16-17	Yes	260	60.3	127	29.5	44	10.2	431	100.0	$X^2=24.072$ df=2 P=.000(*)
		No	93	50.5	44	23.9	47	25.5	184	100.0	
	18-19	Yes	171	53.4	111	34.7	38	11.9	320	100.0	$X^2=5.343$ df=2 P=.069
		No	64	64.0	31	31.0	5	5.0	100	100.0	
	20+	Yes	19	36.5	29	55.8	4	7.7	52	100.0	$X^2=5.743$ df=2 P=.057(a)
		No	10	71.4	3	21.4	1	7.1	14	100.0	
Have you had your belongings taken?	14-15	Yes	68	53.1	39	30.5	21	16.4	128	100.0	$X^2=11.355$ df=2 P=.003(*)
		No	14	42.4	19	57.6	0	.0	33	100.0	
	16-17	Yes	284	59.0	134	27.9	63	13.1	481	100.0	$X^2=5.350$ df=2 P=.069
		No	69	51.5	37	27.6	28	20.9	134	100.0	
	18-19	Yes	178	54.9	112	34.6	34	10.5	324	100.0	$X^2=.592$ df=2 P=.744
		No	57	59.4	30	31.3	9	9.4	96	100.0	
	20+	Yes	20	37.7	28	52.8	5	9.4	53	100.0	$X^2=4.631$ df=2 P=.099(a,b)
		No	9	69.2	4	30.8	0	.0	13	100.0	
Have you had lies told about you?	14-15	Yes	56	52.3	30	28.0	21	19.6	107	100.0	$X^2=16.372$ df=2 P=.000(*)
		No	26	48.1	28	51.9	0	.0	54	100.0	
	16-17	Yes	257	59.8	119	27.7	54	12.6	430	100.0	$X^2=6.248$ df=2 P=.044(*)
		No	96	51.9	52	28.1	37	20.0	185	100.0	
	18-19	Yes	175	59.3	85	28.8	35	11.9	295	100.0	$X^2=11.890$ df=2 P=.003(*)
		No	60	48.0	57	45.6	8	6.4	125	100.0	
	20+	Yes	18	39.1	23	50.0	5	10.9	46	100.0	$X^2=3.045$ df=2 P=.218(a)
		No	11	55.0	9	45.0	0	.0	20	100.0	



Have you had nasty tricks played on you?	14-15	Yes	48	50.0	41	42.7	7	7.3	96	100.0	$X^2=9.020$ df=2 P=.011(*)	
		No	34	52.3	17	26.2	14	21.5	65	100.0		
	16-17	Yes	229	56.5	129	31.9	47	11.6	405	100.0		$X^2=15.304$ df=2 P=.000(*)
		No	124	59.0	42	20.0	44	21.0	210	100.0		
	18-19	Yes	157	51.8	114	37.6	32	10.6	303	100.0		$X^2=8.119$ df=2 P=.017(*)
		No	78	66.7	28	23.9	11	9.4	117	100.0		
20+	Yes	19	43.2	20	45.5	5	11.4	44	100.0	$X^2=2.767$ df=2 P=.251(a)		
	No	10	45.5	12	54.5	0	.0	22	100.0			
Have you been threatened or blackmailed?	14-15	Yes	44	61.1	19	26.4	9	12.5	72	100.0	$X^2=6.036$ df=2 P=.049(*)	
		No	38	42.7	39	43.8	12	13.5	89	100.0		
	16-17	Yes	166	55.3	96	32.0	38	12.7	300	100.0	$X^2=5.938$ df=2 P=.051	
		No	187	59.4	75	23.8	53	16.8	315	100.0		
	18-19	Yes	114	56.2	68	33.5	21	10.3	203	100.0	$X^2=.019$ df=2 P=.991	
		No	121	55.8	74	34.1	22	10.1	217	100.0		
	20+	Yes	13	65.0	7	35.0	0	.0	20	100.0	$X^2=6.147$ df2 P=.046(*,a)	
		No	16	34.8	25	54.3	5	10.9	46	100.0		
Have you been beaten up or hit?	14-15	Yes	51	52.0	35	35.7	12	12.2	98	100.0	$X^2=.190$ df=2 P=.910	
		No	31	49.2	23	36.5	9	14.3	63	100.0		
	16-17	Yes	172	51.2	108	32.1	56	16.7	336	100.0	$X^2=11.736$ df=2 P=.003(*)	
		No	181	64.9	63	22.6	35	12.5	279	100.0		
	18-19	Yes	100	46.1	94	43.3	23	10.6	217	100.0	$X^2=19.879$ df=2 P=.000(*)	
		No	135	66.5	48	23.6	20	9.9	203	100.0		
	20+	Yes	8	21.6	24	64.9	5	13.5	37	100.0	$X^2=18.124$ df=2 P=.000(*,a)	
		No	21	72.4	8	27.6	0	.0	29	100.0		

Some victims of indirect bullying also suffered psychological distress as shown by table 22b. Modes and ages with statistical significance are:

1. other students refusing to play with you; 16-17 ( $p=0.002$ )
2. other students telling nasty stories about you that are not true; 16-17 ( $p=0.011$ )
3. Other students spoil your game deliberately; 14-15 ( $p=0.002$ ) and 18-19 ( $p=0.049$ )

Table 22b: Psychological effects of victims of indirect bullying by age

Mode of bullying	Age	Response	Current Mental Health Status (GHQ)								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No	%	No	%	No	%	No	%	
other students refused to play with you?	14-15	Yes	8	53.3	3	20.0	4	26.7	15	100.0	$X^2=3.551$ $df=2$ $P=.169$ $X^2=11.984$ $df=2$ $P=.002(*)$ $df=2$ $P=.959$ $X^2=1.588$ $df=2$ $P=.452(a,b)$
		No	74	50.7	55	37.7	17	11.6	146	100.0	
	16-17	Yes	43	76.8	12	21.4	1	1.8	56	100.0	
		No	310	55.5	159	28.4	90	16.1	559	100.0	
	18-19	Yes	32	57.1	18	32.1	6	10.7	56	100.0	
		No	203	55.8	124	34.1	37	10.2	364	100.0	
	20+	Yes	4	66.7	2	33.3	0	.0	6	100.0	
		No	25	41.7	30	50.0	5	8.3	60	100.0	
other students said they will not be your friend anymore	14-15	Yes	18	45.0	17	42.5	5	12.5	40	100.0	$X^2=1.665$ $df=2$ $P=.435$ $X^2=2.152$ $df=2$ $P=.341$ $X^2=.885$ $df=2$ $P=.642$ $X^2=9.870$ $df=2$ $P=.007(*,a,b)$
		No	62	56.9	36	33.0	11	10.1	109	100.0	
	16-17	Yes	41	51.3	29	36.3	10	12.5	80	100.0	
		No	276	57.6	135	28.2	68	14.2	479	100.0	
	18-19	Yes	37	55.2	25	37.3	5	7.5	67	100.0	
		No	188	57.1	107	32.5	34	10.3	329	100.0	
	20+	Yes	0	.0	9	100.0	0	.0	9	100.0	
		No	25	47.2	23	43.4	5	9.4	53	100.0	
other students told nasty stories that were not true about you?	14-15	Yes	49	55.7	28	31.8	11	12.5	88	100.0	$X^2=1.714$ $df=2$ $P=.424$ $X^2=9.007$ $df=2$ $P=.011(*)$ $X^2=3.222$ $df=2$ $P=.200$ $X^2=7.109$ $df=2$ $P=.029(*,a)$
		No	31	45.6	28	41.2	9	13.2	68	100.0	
	16-17	Yes	142	49.1	101	34.9	46	15.9	289	100.0	
		No	164	59.9	65	23.7	45	16.4	274	100.0	
	18-19	Yes	133	53.8	91	36.8	23	9.3	247	100.0	
		No	87	57.6	44	29.1	20	13.2	151	100.0	
	20+	Yes	6	21.4	17	60.7	5	17.9	28	100.0	
		No	12	44.4	15	55.6	0	.0	27	100.0	
other students deliberately spoil your game?	14-15	Yes	15	39.5	13	34.2	10	26.3	38	100.0	$X^2=12.754$ $df=2$ $P=.002(*)$ $X^2=2.179$ $df=2$ $P=.336$ $X^2=6.046$ $df=2$ $P=.049(*)$ $X^2=3.076$ $df=2$ $P=.215(a)$
		No	60	55.0	43	39.4	6	5.5	109	100.0	
	16-17	Yes	71	56.3	36	28.6	19	15.1	126	100.0	
		No	225	56.1	133	33.2	43	10.7	401	100.0	
	18-19	Yes	65	52.4	40	32.3	19	15.3	124	100.0	
		No	137	53.9	98	38.6	19	7.5	254	100.0	
	20+	Yes	5	31.3	11	68.8	0	.0	16	100.0	
		No	18	40.9	21	47.7	5	11.4	44	100.0	

Perpetrators of direct bullying suffered psychological distress as shown by table 23a

Modes and ages with statistical significance are:

1. calling others a bad or nasty name; 14-15 (p=0.000) and 16-17 (p=0.000)
2. taking belongings from others; 16-17 (p=0.013)
3. telling lies about others; 18-19 (p=0.000)
4. playing nasty tricks on others 16-17 (p=0.007)
5. threatening or blackmailing others, 14-15 (p=0.007) and 18-19 (p=0.018)
6. hitting or beating others; 18-19 (p=0.011)

**Table 23a: Psychological effects of perpetrators of direct bullying by age**

Type of bullying	Age	Response	Current Mental Health Status								Test		
			No Distress		Evidence of Distress		Severe Psychological Distress		Total				
			No	%	No	%	No	%	No	%			
Did you tell any parent(s) bad or nasty things in the past 6 months?	14-15	Yes	61	67.0	28	30.8	2	2.2	91	100.0	$X^2=31.134$ $df=2$ $P=.000(*)$		
		No	21	30.0	30	42.9	19	27.1	70	100.0			
	16-17	Yes	217	67.8	74	23.1	29	9.1	320	100.0			
		No	136	46.1	97	32.9	62	21.0	295	100.0			
	18-19	Yes	128	55.2	75	32.3	29	12.5	232	100.0			
		No	107	56.9	67	35.6	14	7.4	188	100.0			
	20+	Yes	20	41.7	24	50.0	4	8.3	48	100.0			
		No	9	50.0	8	44.4	1	5.6	18	100.0			
Did you take any other person's belongings in the past 6 months?	14-15	Yes	33	63.5	14	26.9	5	9.6	52	100.0	$X^2=4.826$ $df=2$ $P=.090$		
		No	49	45.0	44	40.4	16	14.7	109	100.0			
	16-17	Yes	128	66.0	42	21.6	24	12.4	194	100.0			
		No	225	53.4	129	30.6	67	15.9	421	100.0			
	18-19	Yes	64	50.8	46	36.5	16	12.7	126	100.0			
		No	171	58.2	96	32.7	27	9.2	294	100.0			
	20+	Yes	14	56.0	11	44.0	0	.0	25	100.0			
		No	15	36.6	21	51.2	5	12.2	41	100.0			
	Did you tell about bullying to other students in the past 6 months?	14-15	Yes	44	55.7	25	31.6	10	12.7	79		100.0	$X^2=1.535$ $df=2$ $P=.464$
			No	38	46.3	33	40.2	11	13.4	82		100.0	
16-17		Yes	180	60.6	74	24.9	43	14.5	297	100.0			
		No	173	54.4	97	30.5	48	15.1	318	100.0			
18-19		Yes	96	56.5	44	25.9	30	17.6	170	100.0			
		No	139	55.6	98	39.2	13	5.2	250	100.0			
20+		Yes	14	38.9	22	61.1	0	.0	36	100.0			

		No	15	50.0	10	33.3	5	16.7	30	100.0	df=2 P=.011(*,a)
Have you played nasty tricks on other students?	14-15	Yes	47	51.1	35	38.0	10	10.9	92	100.0	X <sup>2</sup> =1.022 df=2 P=.600
		No	35	50.7	23	33.3	11	15.9	69	100.0	
	16-17	Yes	185	52.9	101	28.9	64	18.3	350	100.0	X <sup>2</sup> =9.924 df=2 P=.007(*)
		No	168	63.4	70	26.4	27	10.2	265	100.0	
	18-19	Yes	118	54.1	78	35.8	22	10.1	218	100.0	X <sup>2</sup> =.799 df=2 P=.671
		No	117	57.9	64	31.7	21	10.4	202	100.0	
20+	Yes	19	44.2	23	53.5	1	2.3	43	100.0	X <sup>2</sup> =5.128 df=2 P=.077(a)	
	No	10	43.5	9	39.1	4	17.4	23	100.0		
Have you threatened or blackmailed any student in the past 6 months?	14-15	Yes	32	61.5	10	19.2	10	19.2	52	100.0	X <sup>2</sup> =9.964 df=2 P=.007(*)
		No	50	45.9	48	44.0	11	10.1	109	100.0	
	16-17	Yes	152	60.8	70	28.0	28	11.2	250	100.0	X <sup>2</sup> =4.538 df=2 P=.103
		No	201	55.1	101	27.7	63	17.3	365	100.0	
	18-19	Yes	70	47.3	57	38.5	21	14.2	148	100.0	X <sup>2</sup> =8.040 df=2 P=.018(*)
		No	165	60.7	85	31.3	22	8.1	272	100.0	
20+	Yes	15	60.0	10	40.0	0	.0	25	100.0	X <sup>2</sup> =6.009 df=2 P=.050(*,a)	
	No	14	34.1	22	53.7	5	12.2	41	100.0		
Have you hit or beaten up another student in the past 6 months?	14-15	Yes	29	50.9	23	40.4	5	8.8	57	100.0	X <sup>2</sup> =1.693 df=2 P=.429
		No	53	51.0	35	33.7	16	15.4	104	100.0	
	16-17	Yes	149	56.2	81	30.6	35	13.2	265	100.0	X <sup>2</sup> =2.183 df=2 P=.336
		No	204	58.3	90	25.7	56	16.0	350	100.0	
	18-19	Yes	79	47.6	70	42.2	17	10.2	166	100.0	X <sup>2</sup> =9.103 df=2 P=.011(*)
		No	156	61.4	72	28.3	26	10.2	254	100.0	
20+	Yes	11	34.4	21	65.6	0	.0	32	100.0	X <sup>2</sup> =9.763 df=2 P=.008(*,a)	
	No	18	52.9	11	32.4	5	14.7	34	100.0		

Perpetrators of indirect bullying suffered psychological distress also as shown by table 23b. Modes and ages with statistical significance:

1. Refusing to play with others; 16-17 (p=0.000) and 18-19 (p=0.000)
2. Refusing to be friends with others; 18-19 (p=0.000)
3. Telling nasty stories about others; 16-17 (p=0.010)
4. Spoiling other student's games was not statistically significant for any age group.

Table 23b: Psychological effects of perpetrators of indirect bullying by age

Mode of bullying	Age	Response	Current Mental Health Status (GHQ)								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No	%	No	%	No	%	No	%	
How frequently have you refused to play with other students	14-15	Never	55	48.7	42	37.2	16	14.2	113	100.0	X <sup>2</sup> =18.753 df=6 P=.005(*,a,b)
		Seldom	23	71.9	9	28.1	0	.0	32	100.0	
		Frequently	0	.0	0	.0	1	100.0	1	100.0	
		Very frequently	4	26.7	7	46.7	4	26.7	15	100.0	
	16-17	Never	239	56.0	109	25.5	79	18.5	427	100.0	X <sup>2</sup> =63.809 df=6 P=.000(*)
		Seldom	99	73.3	33	24.4	3	2.2	135	100.0	
		Frequently	11	36.7	19	63.3	0	.0	30	100.0	
		Very frequently	4	17.4	10	43.5	9	39.1	23	100.0	
	18-19	Never	156	56.7	82	29.8	37	13.5	275	100.0	X <sup>2</sup> =29.737 df=6 P=.000(*)
		Seldom	56	66.7	28	33.3	0	.0	84	100.0	
		Frequently	8	26.7	20	66.7	2	6.7	30	100.0	
		Very frequently	15	48.4	12	38.7	4	12.9	31	100.0	
20+	Never	22	40.7	27	50.0	5	9.3	54	100.0	X <sup>2</sup> =3.554 df=4 P=.470(a,b)	
	Seldom	7	63.6	4	36.4	0	.0	11	100.0		
	Frequently	0	.0	0	.0	0	.0	0	.0		
	Frequently	0	.0	0	.0	0	.0	0	.0		
How frequently have you said you would not be friends with other students	14-15	Never	24	38.7	33	53.2	5	8.1	62	100.0	X <sup>2</sup> =24.089 df=6 P=.001(*,a)
		Seldom	34	69.4	9	18.4	6	12.2	49	100.0	
		Frequently	9	45.0	6	30.0	5	25.0	20	100.0	
		Very frequently	2	22.2	7	77.8	0	.0	9	100.0	
	16-17	Never	139	56.5	80	32.5	27	11.0	246	100.0	X <sup>2</sup> =10.100 df=6 P=.120
		Seldom	86	53.8	47	29.4	27	16.9	160	100.0	
		Frequently	35	67.3	10	19.2	7	13.5	52	100.0	
		Very frequently	11	39.3	13	46.4	4	14.3	28	100.0	
	18-19	Never	60	44.1	58	42.6	18	13.2	136	100.0	X <sup>2</sup> =28.234 df=6 P=.000(*)
		Seldom	81	57.9	41	29.3	18	12.9	140	100.0	
		Frequently	33	84.6	4	10.3	2	5.1	39	100.0	
		Very frequently	10	35.7	16	57.1	2	7.1	28	100.0	
20+	Never	8	26.7	22	73.3	0	.0	30	100.0	X <sup>2</sup> =18.424 df=6 P=.005(*,a,b)	
	Seldom	8	53.3	3	20.0	4	26.7	15	100.0		
	Frequently	0	.0	1	50.0	1	50.0	2	100.0		
	Very frequently	1	50.0	1	50.0	0	.0	2	100.0		
How	14-15	Never	32	37.2	39	45.3	15	17.4	86	100.0	X <sup>2</sup> =23.590

Do you often use nasty names at work? Are they true?	Seldom	21	65.6	11	34.4	0	.0	32	100.0	df=6 P=.001(*,a)	
		Frequently	8	80.0	2	20.0	0	.0	10		100.0
		Very frequently	10	90.9	0	.0	1	9.1	11		100.0
	16-17	Never	155	52.2	109	36.7	33	11.1	297	100.0	X <sup>2</sup> =16.807 df=6 P=.010(*)
		Seldom	78	56.1	38	27.3	23	16.5	139	100.0	
		Frequently	20	80.0	2	8.0	3	12.0	25	100.0	
		Very frequently	10	62.5	2	12.5	4	25.0	16	100.0	
	18-19	Never	110	50.9	82	38.0	24	11.1	216	100.0	X <sup>2</sup> =16.084 df=6 P=.013(*,a)
		Seldom	48	55.8	26	30.2	12	14.0	86	100.0	
		Frequently	6	27.3	13	59.1	3	13.6	22	100.0	
		Very frequently	12	92.3	1	7.7	0	.0	13	100.0	
	20+	Never	8	23.5	21	61.8	5	14.7	34	100.0	X <sup>2</sup> =17.774 df=6 P=.007(*,a,b)
Seldom		10	83.3	2	16.7	0	.0	12	100.0		
Frequently		0	.0	2	100.0	0	.0	2	100.0		
Very frequently		0	.0	2	100.0	0	.0	2	100.0		
Do you often use nasty names at work? Are they true?	14-15	Never	48	48.5	40	40.4	11	11.1	99	100.0	X <sup>2</sup> =11.013= df=6 P=.088(a,b)
		Seldom	9	47.4	10	52.6	0	.0	19	100.0	
		Frequently	7	100.0	0	.0	0	.0	7	100.0	
		Very frequently	6	66.7	2	22.2	1	11.1	9	100.0	
16-17	Never	201	55.7	117	32.4	43	11.9	361	100.0	X <sup>2</sup> =11.680 df=6 P=.069(a)	
	Seldom	51	61.4	16	19.3	16	19.3	83	100.0		
	Frequently	7	63.6	4	36.4	0	.0	11	100.0		
	Very frequently	12	70.6	5	29.4	0	.0	17	100.0		
18-19	Never	156	56.3	99	35.7	22	7.9	277	100.0	X <sup>2</sup> =24.458 df=6 P=.000(*,a)	
	Seldom	29	64.4	11	24.4	5	11.1	45	100.0		
	Frequently	3	13.0	13	56.5	7	30.4	23	100.0		
	Very frequently	5	50.0	3	30.0	2	20.0	10	100.0		
20+	Never	15	46.9	12	37.5	5	15.6	32	100.0	X <sup>2</sup> =11.599 df=4 P=.021(*,a,b)	
	Seldom	0	.0	7	100.0	0	.0	7	100.0		
	Frequently	7	58.3	5	41.7	0	.0	12	100.0		
	Very frequently	0	.0	0	.0	0	.0	0	.0		

#### 4.12 PSYCHOLOGICAL DISTRESS ASSOCIATED WITH BULLYING AND GENDER

Different genders respond to direct bullying differently in terms of psychological distress as shown by table 24a. Modes with statistical significance for the perpetrators are:

1. calling others a bad or nasty name; male (p=0.001) and female(p=0.000)

2. taking belongings from others; females ( $p=0.033$ )
3. telling lies about others; males ( $p=0.041$ )
4. hitting or beating others; males and females ( $p=0.002$ )

**Table 24a: Psychological Effects of perpetrators of Direct Bullying by Gender**

Mode of bullying	Gender	Response	Current Mental Health Status								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No	%	No	%	No	%	No	%	
Called other students bad/nasty names	Male	Yes	334	59.7	172	30.8	53	9.5	559	100	$X^2=13.783$ df=2 p=0.001
		No	149	57.1	69	26.4	43	16.4	261	100	
	Female	Yes	92	69.7	29	22.0	11	8.3	132	100	$X^2=21.423$ df=2 p=0.000
		No	80	43.5	72	39.1	32	17.4	184	100	
Took belongings from others	Male	Yes	187	59.0	90	28.4	40	12.6	317	100	$X^2=2.810$ df=2 p=0.245
		No	340	54.1	212	33.7	77	12.2	629	100	
	Female	Yes	52	65.0	23	28.8	5	6.3	80	100	$X^2=6.806$ df=2 P=0.033
		No	120	50.8	78	33.1	38	16.1	236	100	
Told lies about others	Males	Yes	253	57.1	126	28.4	64	14.4	443	100	$X^2=6.369$ df=2 P=0.041
		No	274	54.5	176	35.0	53	10.5	503	100	
	Female	Yes	81	58.3	39	28.1	19	13.7	139	100	$X^2=1.858$ df=2 P=0.395
		No	91	51.4	62	35.0	24	13.6	177	100	
Played nasty tricks on others	Males	Yes	293	53.8	178	32.7	74	13.6	545	100	$X^2=2.616$ df=2 P=0.270
		No	234	58.4	124	30.9	43	10.7	401	100	
	Female	Yes	76	48.1	59	37.3	23	14.6	158	100	$X^2=5.396$ df=2 P=0.067
		No	96	60.8	42	26.6	20	12.7	158	100	
Threatened/black mailed other students	Males	Yes	227	57.8	118	30.0	48	12.2	393	100	$X^2=1.280$ df=2 P=0.527
		No	300	54.2	184	33.3	69	12.5	553	100	
	Female	Yes	42	51.2	29	35.4	11	13.4	82	100	$X^2=0.614$ df=2 P=0.736
		No	130	55.6	72	30.8	32	13.7	234	100	
Hit or beat up another student	Males	Yes	219	52.8	148	35.7	48	11.6	415	100	$X^2=4.766$ df=2 P=0.002
		No	308	58.0	154	29.0	69	13.0	531	100	
	Female	Yes	49	46.7	47	44.8	9	8.6	105	100	$X^2=12.733$ df=2 P=0.002
		No	123	58.3	54	25.6	34	16.1	211	100	

Perpetrators of indirect bullying show psychological distress as shown by table 24b.

Modes with statistical significance are

1. Refusing to play with others; male ( $p=0.000$ ) and female ( $p=0.000$ )
2. Refusing to be friends with others; males ( $p=0.019$ ) and females ( $p=0.000$ )
3. Telling nasty stories about others; females ( $p=0.000$ )
4. Spoiling other student's games ; females ( $p=0.018$ )

**Table 24b: Psychological Effects of perpetrators of Indirect Bullying by Gender**

Mode of bullying	Gender	Responses	Current Mental Health Status								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No	%	No	%	No	%	No	%	
Refuse to play with other students	Male	Never	337	53.2	198	31.3	98	15.5	633	100	$X^2=65.158$ $df=6$ $P=0.000$
		Seldom	154	71.3	59	27.3	3	1.4	216	100	
		Frequently	17	34.7	29	59.2	3	6.1	49	100	
		Very frequently	19	39.6	16	33.3	13	27.1	48	100	
	Female	Never	135	57.2	62	26.3	39	16.5	236	100	
		Seldom	31	67.4	15	32.6	0	0	46	100	
		Frequently	2	16.7	10	83.3	0	0	12	100	
		Very frequently	4	18.2	14	63.6	4	18.2	22	100	
Refuse to be friends with other students	Male	Never	151	54.9	87	31.6	37	13.5	275	100	$X^2=15.200$ $df=6$ $P=0.019$
		Seldom	151	54.9	87	31.6	37	13.5	275	100	
		Frequently	57	66.3	19	22.1	10	11.6	86	100	
		Very frequently	13	36.1	19	52.8	4	11.1	36	100	
	Female	Never	42	42.0	51	51.0	7	7.0	100	100	
		Seldom	58	65.2	13	14.6	18	20.2	89	100	
		Frequently	20	74.1	2	7.4	5	18.5	27	100	
		Very frequently	11	35.5	18	58.1	2	6.5	31	100	
Tell nasty stories about	Male	Never	118	53.6	68	30.9	34	15.5	220	100	$X^2=12.508$ $df=6$
		Seldom	118	53.6	68	30.9	34	15.5	220	100	



others that are not true		Frequently	26	51.0	19	37.3	6	11.8	51	100	<b>P=0.052</b>
		Very frequently	25	75.8	5	15.2	3	9.1	33	100	
	Female	Never	73	41.7	76	43.4	26	14.9	175	100	<b>X<sup>2</sup>=35.435</b> <b>df=6</b> <b>P=0.000</b>
		Seldom	39	79.9	9	18.4	1	2.0	49	100	
		Frequently	8	100	0	0	0	0	8	100	
		Very frequently	7	77.8	0	0	2	22.2	9	100	
Frequently spoil other students game deliberately	Male	Never	306	54.4	199	35.3	58	10.3	563	100	<b>X<sup>2</sup>=6.747</b> <b>df=6</b> <b>P=0.345</b>
		Seldom	66	52.0	40	31.5	21	16.5	127	100	
		Frequently	22	47.8	17	37.0	7	15.2	46	100	
		Very frequently	21	65.6	8	25.0	3	9.4	32	100	
	Female	Never	114	55.3	69	33.5	23	11.2	206	100	<b>X<sup>2</sup>=15.280</b> <b>df=6</b> <b>P=0.018</b>
		Seldom	23	85.2	4	14.8	0	0	27	100	
		Frequently	2	28.6	5	71.4	0	0	7	100	
		Very frequently	2	50.0	2	50.0	0	0	4	100	

Some victims of direct bullying suffered psychological distress as shown by table 25a below.

Modes with statistical significance for the victims of direct bullying by gender

1. Being called a nasty name; males ( $p=0.015$ ) and females ( $p=0.000$ )
2. Having belongings taken; not significant
3. Having lies told about self; females ( $p=0.000$ )
4. Having nasty tricks played on one, males ( $p=0.001$ )
5. Threatened or blackmailed; not significant
6. Being hit or beaten; males ( $p=0.000$ )

**Table 25a: Psychological Effects of Victims of Direct Bullying by Gender**

Mode of bullying	Gender	Response	Current Mental Health Status								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No	%	No	%	No	%	No	%	
Been called bad/nasty name	Male	Yes	378	55.2	233	34.0	74	10.8	685	100	$X^2=8.439$ df=2 p=0.015
		No	149	57.1	69	26.4	43	16.5	261	100	
	Female	Yes	136	58.4	77	33.0	20	8.6	233	100	$X^2=19.309$ df=2 p=0.000
		No	36	43.4	24	28.9	23	27.7	83	100	
Had Belongings taken	Male	Yes	425	56.1	241	31.8	92	12.1	758	100	$X^2=0.273$ df=2 p=0.872
		No	102	54.3	61	32.4	25	13.3	188	100	
	Females	Yes	125	54.8	72	31.6	31	13.6	228	100	$X^2=0.061$ df=2 p=0.970
		No	47	53.4	29	33.0	12	13.6	88	100	
Had lies Told about self	Males	Yes	370	56.9	201	30.9	79	12.2	650	100	$X^2=1.279$ df=2 p=0.528
		No	157	53.0	101	34.1	38	12.8	296	100	
	Females	Yes	136	59.6	56	24.6	36	15.8	228	100	$X^2=20.990$ df=2 p=0.000
		No	36	40.9	45	51.1	7	8.0	88	100	
Had nasty tricks played on	Males	Yes	351	53.2	235	35.6	74	11.2	660	100	$X^2=14.131$ df=2 p=0.001
		No	176	61.5	67	23.4	43	15.0	286	100	
	Females	Yes	102	54.3	69	36.7	17	9.0	188	100	$X^2=5.396$ df=2 p=0.067
		No	70	54.7	32	25.0	26	20.3	128	100	
Was threatened/blackedmailed by other students	Males	Yes	260	55.7	154	33.0	53	11.3	467	100	$X^2=1.094$ df=2 p=0.579
		No	265	55.7	148	30.9	64	13.4	479	100	
	Females	Yes	77	60.2	36	28.1	15	11.7	128	100	$X^2=2.851$ df=2 p=0.240
		No	95	50.5	65	34.6	28	14.9	188	100	
Was Hit or beaten up by other students	Males	Yes	247	47.6	198	38.2	74	14.3	519	100	$X^2=30.883$ df=2 P=0.000
		No	308	58.0	154	29.0	69	13.0	531	100	
	Female	Yes	84	49.7	63	37.3	22	13.0	169	100	$X^2=4.796$ df=2 p=0.091
		No	88	59.9	38	25.9	21	14.3	147	100	

Some victims of indirect bullying suffered psychological distress as shown by table 25b below.

Modes with statistical significance for the victims of indirect bullying by gender

1. other students refusing to play with you; not significant
2. other students refusing to be friends with you any more; females ( $p=0.003$ )
3. other students telling nasty stories about you that are not true; males ( $p=0.041$ )
4. Other students spoil your game deliberately; females ( $p=0.040$ )

**Table 25b: Psychological Effects of Victims of Indirect Bullying by Gender**

Mode of bullying	Gender	Response	Current Mental Health Status								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No	%	No	%	No	%	No	%	
Other students refuse to play with you	Male	Yes	67	63.2	30	28.3	9	8.5	105	100	$X^2=3.147$ df=2 $p=0.207$
		No	460	54.8	272	32.4	108	12.9	840	100	
	Female	Yes	20	74.1	5	18.5	2	7.4	27	100	$X^2=4.596$ df=2 $P=0.100$
		No	152	52.6	96	33.2	41	14.2	286	100	
Other students say they will not be your friends any more	Male	Yes	75	53.6	51	36.4	14	10.0	140	100	$X^2=1.413$ df=2 $p=0.493$
		No	406	55.6	233	31.5	91	12.5	730	100	
	Females	Yes	21	37.5	29	51.8	6	10.7	56	100	$X^2=11.885$ df=2 $p=0.003$
		No	145	60.4	68	28.3	27	11.3	240	100	
Other students tell nasty stories about you that are not true	Males	Yes	235	50.5	169	36.3	61	13.1	465	100	$X^2=4.031$ df=2 $p=0.041$
		No	223	56.0	119	29.9	56	14.1	398	100	
	Females	Yes	95	50.8	68	36.4	24	12.8	187	100	$X^2=2.911$ df=2 $p=0.233$
		No	71	58.2	33	27.0	18	14.8	122	100	
Other students deliberately spoil your game	Males	Yes	125	50.6	84	34.0	38	15.4	247	100	$X^2=5.659$ df=2 $p=0.059$
		No	322	54.7	210	35.7	57	9.7	589	100	
	Females	Yes	31	54.4	16	28.1	10	17.5	57	100	$X^2=6.461$ df=2 $P=0.040$
		No	118	53.9	85	38.8	16	7.3	219	100	

#### 4.13 PSYCHOLOGICAL EFFECTS OF BULLYING BY FORM

Bullying produces different psychological effects on different forms in a school. This is also related to the different modes of bullying.

Victims of direct bullying by form have different psychological effects as shown by table

Modes with statistical significance for victims of bullying:

1. Being called a nasty name; form 1 ( $p=0.000$ ) and form 2 ( $p=0.000$ )
2. Having belongings taken; not significant
3. Having lies told about self; form 1( $p=0.000$ )
4. Having nasty tricks played on one, form 1( $p=0.001$ )
5. Threatened or blackmailed; not significant
6. Being hit or beaten; form 2 ( $p=0.000$ ), form 3 ( $p=0.003$ ) and form 4( $p=0.013$ )

**Table 26a: Psychological effects of victims of direct bullying by form**

Mode of bullying	Form	Response	Current Mental Health Status								Test	
			No Distress		Evidence of Distress		Severe Psychological Distress		Total			
			No.	%	No.	%	No.	%	No.	%		
been called bad or nasty names?	1	Yes	85	64.4	38	28.8	9	6.8	132	100.0	$X^2=30.475$ df=2 P=.000(*)	
		No	21	31.3	23	34.3	23	34.3	67	100.0		
	2	Yes	227	56.6	139	34.7	35	8.7	401	100.0		
		No	94	59.9	33	21.0	30	19.1	157	100.0		
	3	Yes	152	53.0	96	33.4	39	13.6	287	100.0		$X^2=1.427$ df=2 P=.490
		No	57	60.0	27	28.4	11	11.6	95	100.0		
	4	Yes	50	51.0	37	37.8	11	11.2	98	100.0		$X^2=.226$ df=2 P=.893
		No	13	52.0	10	40.0	2	8.0	25	100.0		
had your belongings taken?	1	Yes	81	54.4	40	26.8	28	18.8	149	100.0	$X^2=5.650$ df=2 P=.059	
		No	25	50.0	21	42.0	4	8.0	50	100.0		
	2	Yes	227	56.6	139	34.7	35	8.7	401	100.0		
		No	94	59.9	33	21.0	30	19.1	157	100.0		
	3	Yes	151	52.4	100	34.7	37	12.8	288	100.0		$X^2=3.480$ df=2 P=.176
		No	57	60.0	27	28.4	11	11.6	95	100.0		
	4	Yes	45	53.6	29	34.5	10	11.9	84	100.0		$X^2=1.676$ df=2 P=.433
		No	18	46.2	18	46.2	3	7.7	39	100.0		
had lies told about you?	1	Yes	88	60.3	31	21.2	27	18.5	146	100.0	$X^2=22.909$ df=2 P=.000(*)	
		No	18	34.0	30	56.6	5	9.4	53	100.0		
	2	Yes	208	58.3	110	30.8	39	10.9	357	100.0	$X^2=.540$ df=2 P=.763	
		No	113	56.2	62	30.8	26	12.9	201	100.0		
	3	Yes	162	56.6	85	29.7	39	13.6	286	100.0	$X^2=3.208$ df=2 P=.201	
		No	47	49.0	38	39.6	11	11.5	96	100.0		

had nasty tricks played on you?	4	Yes	48	53.9	31	34.8	10	11.2	89	100.0	$X^2=1.561$ df=2 P=.458	
		No	15	44.1	16	47.1	3	8.8	34	100.0		
	1	Yes	49	47.6	43	41.7	11	10.7	103	100.0	$X^2=13.745$ df=2 P=.001(*)	
		No	57	59.4	18	18.8	21	21.9	96	100.0		
	2	Yes	213	56.8	125	33.3	37	9.9	375	100.0	$X^2=.540$ df=2 P=.763	
		No	108	59.0	47	25.7	28	15.3	183	100.0		
	3	Yes	153	52.6	105	36.1	33	11.3	291	100.0	$X^2=9.593$ df=2 P=.008(*)	
		No	56	61.5	18	19.8	17	18.7	91	100.0		
4	Yes	38	48.1	31	39.2	10	12.7	79	100.0	$X^2=1.392$ df=2 P=.498		
	No	25	56.8	16	36.4	3	6.8	44	100.0			
been threatened or blackmailed?	1	Yes	38	51.4	19	25.7	17	23.0	74	100.0	$X^2=4.514$ df=2 P=.105	
		No	68	54.4	42	33.6	15	12.0	125	100.0		
	2	Yes	175	58.5	97	32.4	27	9.0	299	100.0	$X^2=4.451$ df=2 P=.108	
		No	146	56.4	75	29.0	38	14.7	259	100.0		
	3	Yes	95	55.6	56	32.7	20	11.7	171	100.0	$X^2=.528$ df=2 P=.768	
		No	114	54.0	67	31.8	30	14.2	211	100.0		
	4	Yes	29	56.9	18	35.3	4	7.8	51	100.0	$X^2=1.348$ df=2 P=.510	
		No	34	47.2	29	40.3	9	12.5	72	100.0		
	been beaten up or hit?	1	Yes	51	50.0	31	30.4	20	19.6	102	100.0	$X^2=2.043$ df=2 P=.360
			No	55	56.7	30	30.9	12	12.4	97	100.0	
		2	Yes	167	49.9	125	37.3	43	12.8	335	100.0	$X^2=21.051$ df=2 P=.000(*)
			No	154	69.1	47	21.1	22	9.9	223	100.0	
3		Yes	87	47.0	75	40.5	23	12.4	185	100.0	$X^2=11.743$ df=2 P=.003(*)	
		No	122	61.9	48	24.4	27	13.7	197	100.0		
4		Yes	26	39.4	30	45.5	10	15.2	66	100.0	$X^2=8.674$ df=2 P=.013(*)	
		No	37	64.9	17	29.8	3	5.3	57	100.0		

Psychological effects of victims of indirect bullying are shown by table 26b.

Modes with statistical significance for victims are:

1. other students refusing to play with you; not significant
2. other students refusing to be friends with you any more; form 1 (p=0.001)
3. other students telling nasty stories about you that are not true; not significant
4. Other students spoil your game deliberately; form 1 (p=0.000) form 3 (p=0.003)

Table 26b: Psychological effects of victims of indirect bullying by form

Mode of bullying	Form	Response	Current Mental Health Status								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No.	%	No.	%	No.	%	No.	%	
other students refused to play with you?	1	Yes	15	65.2	3	13.0	5	21.7	23	100.0	$X^2=3.846$ df=2 P=.146
		No	91	51.7	58	33.0	27	15.3	176	100.0	
	2	Yes	39	72.2	12	22.2	3	5.6	54	100.0	$X^2=5.585$ df=2 P=.061
		No	282	56.0	160	31.7	62	12.3	504	100.0	
	3	Yes	27	57.4	17	36.2	3	6.4	47	100.0	$X^2=2.177$ df=2 P=.337
		No	182	54.3	106	31.6	47	14.0	335	100.0	
	4	Yes	8	34.8	14	60.9	1	4.3	23	100.0	$X^2=1.539$ df=2 P=.463(a,b)
		No	53	57.0	31	33.3	9	9.7	93	100.0	
other students said they will not be your friends anymore	1	Yes	6	24.0	13	52.0	6	24.0	25	100.0	$X^2=13.852$ df=2 P=.001(*)
		No	96	63.6	39	25.8	16	10.6	151	100.0	
	2	Yes	44	51.8	33	38.8	8	9.4	85	100.0	$X^2=2.239$ df=2 P=.326
		No	247	57.4	132	30.7	51	11.9	430	100.0	
	3	Yes	38	60.3	20	31.7	5	7.9	63	100.0	$X^2=2.208$ df=2 P=.332
		No	155	52.4	99	33.4	42	14.2	296	100.0	
		Yes	8	34.8	14	60.9	1	4.3	23	100.0	$X^2=5.941$ df=2 P=.051
		No	53	57.0	31	33.3	9	9.7	93	100.0	
other students told nasty stories that were not true about you?	1	Yes	50	53.8	24	25.8	19	20.4	93	100.0	$X^2=3.852$ df=2 P=.146
		No	50	51.0	36	36.7	12	12.2	98	100.0	
	2	Yes	129	52.0	92	37.1	27	10.9	248	100.0	$X^2=5.803$ df=2 P=.055
		No	152	58.0	72	27.5	38	14.5	262	100.0	
	3	Yes	119	50.9	86	36.8	29	12.4	234	100.0	$X^2=4.053$ df=2 P=.132
		No	65	55.1	32	27.1	21	17.8	118	100.0	
	4	Yes	32	41.6	35	45.5	10	13.0	77	100.0	$X^2=5.642$ df=2 P=.060
		No	27	64.3	12	28.6	3	7.1	42	100.0	
other students deliberately spoil your game?	1	Yes	16	53.3	5	16.7	9	30.0	30	100.0	$X^2=17.176$ df=2 P=.000(*)
		No	83	56.5	55	37.4	9	6.1	147	100.0	
	2	Yes	63	50.8	49	39.5	12	9.7	124	100.0	$X^2=1.364$ df=2 P=.506
		No	199	55.9	120	33.7	37	10.4	356	100.0	
	3	Yes	63	48.5	40	30.8	27	20.8	130	100.0	$X^2=11.864$ df=2 P=.003(*)
		No	117	54.9	79	37.1	17	8.0	213	100.0	
	4	Yes	14	70.0	6	30.0	0	.0	20	100.0	$X^2=5.169$ df=2 P=.075
		No	41	44.6	41	44.6	10	10.9	92	100.0	

Psychological effects of perpetrators of direct bullying are shown by table 27a.

Modes with statistical significance for perpetrators of bullying:

1. calling others a bad or nasty name; form1 (p=0.000) form2 and 3 (p=0.032)
2. taking belongings from others; form 1 (p=0.000) and form 4 (p=0.12)
3. telling lies about others; form 3 (p=0.033)
4. playing nasty tricks on others form 4 (p=0.003)
5. threatening or blackmailing others, form2 (p=0.35)
6. hitting or beating others; form 1 (p=0.022), form 2 (p=0.040) and form 4 (p= 0.005)

**Table 27a: Perpetrators of direct bullying by form**

Mode of bullying	Form	Response	Current Mental Health Status								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No.	%	No.	%	No.	%	No.	%	
Called other students bad/nasty name	1	Yes	81	54.4	40	26.8	2	2.4	85	100	$X^2=28.022$ $df=2$ $P=0.000$ $X^2=6.896$ $df=2$ $P=.032(*)$ $X^2=6.882$ $Df=2$ $P=.032(*)$ $X^2=5.468$ $df=2$ $P=.065$
		No	45	39.5	39	34.2	30	26.3	114	100	
	2	Yes	198	61.3	96	29.7	29	9.0	323	100	
		No	123	52.3	76	32.3	36	15.3	235	100	
	3	Yes	131	60.4	63	29.0	23	10.6	217	100	
		No	78	47.3	60	36.4	27	16.4	165	100	
	4	Yes	36	54.5	20	30.3	10	15.2	66	100	
		No	27	47.4	27	47.4	3	5.3	57	100	
Took other students belongings	1	Yes	39	81.3	4	8.3	5	10.4	48	100	
		No	61	44.4	57	37.7	27	17.9	151	100	
	2	Yes	107	59.1	51	28.2	23	12.7	181	100	
		No	214	56.8	121	32.1	42	11.1	377	100	
	3	Yes	68	51.9	46	35.1	17	13.0	131	100	
		No	141	56.2	77	30.7	33	13.1	251	100	
	4	Yes	25	67.6	12	32.4	0	.0	37	100	
		No	38	44.2	35	40.7	13	15.1	86	100	
Told lies about other students	1	Yes	50	55.6	26	28.9	14	15.6	90	100	
		No	56	51.4	35	32.1	18	16.5	109	100	
	2	Yes	154	57.2	79	29.4	36	13.4	269	100	
		No	167	57.8	93	32.2	29	10.0	289	100	
	3	Yes	101	58.0	45	25.9	28	16.1	174	100	
		No	108	51.9	78	37.5	22	10.6	208	100	
	4	Yes	29	59.2	15	30.6	5	10.2	49	100	
		No	34	45.9	32	43.2	8	10.8	74	100	

Played nasty tricks on other students	1	Yes	58	50.0	37	31.9	21	18.1	116	100	$X^2=1.405$ df=2 P=0.945	
		No	48	57.8	24	28.9	11	13.3	83	100		
	2	Yes	181	57.6	91	29.0	42	13.4	314	100	$X^2=2.632$ df=2 P=.268	
		No	140	57.4	81	33.2	23	9.4	244	100		
	3	Yes	109	50.5	78	36.1	29	13.4	216	100	$X^2=4.046$ df=2 P=.132	
		No	100	60.2	45	27.1	21	12.7	166	100		
	4	Yes	21	36.8	31	54.4	5	8.8	57	100	$X^2=11.885$ df=2 P=.003(*)	
		No	42	63.6	16	24.2	8	12.1	66	100		
threatened or blackmailed any student	1	Yes	32	54.2	14	23.7	13	22.0	59	100	$X^2=3.175$ df=2 P=.204	
		No	74	52.9	47	33.6	19	13.6	140	100		
	2	Yes	141	63.2	64	28.7	18	8.1	223	100	$X^2=6.723$ df=2 P=.035(*)	
		No	180	53.7	108	32.2	47	14.0	335	100		
	3	Yes	81	51.6	51	32.5	25	15.9	157	100	$X^2=2.117$ df=2 P=.347	
		No	128	56.9	72	32.0	25	11.1	225	100		
	4	Yes	15	41.7	18	50.0	3	8.3	36	100	$X^2=2.999$ df=2 P=.223	
		No	48	55.2	29	33.3	10	11.5	87	100		
	hit or beaten up another students?	1	Yes	28	43.8	28	43.8	8	12.5	64	100	$X^2=7.635$ df=2 P=.022(*)
			No	78	57.8	33	24.4	24	17.8	135	100	
2		Yes	136	54.8	89	35.9	23	9.3	248	100	$X^2=6.433$ df=2 P=.040(*)	
		No	185	59.7	83	26.8	42	13.5	310	100		
3		Yes	78	50.6	51	33.1	25	16.2	154	100	$X^2=2.795$ df=2 P=.247	
		No	131	57.5	72	31.6	25	11.0	228	100		
4		Yes	26	48.1	27	50.0	1	1.9	54	100	$X^2=10.599$ df=2 P=.005(*)	
		No	37	53.6	20	29.0	12	17.4	69	100		

Psychological effects of perpetrators of indirect bullying are shown by table 27b.

Modes with statistical significance are:

1. Refusing to play with others; form 1,2and3 (p=0.000)
2. Refusing to be friends with others; form 2 (p=0.003) and form 3 (p=0.036 )
3. Telling nasty stories about others; form 2 (p=0.035)
4. Spoiling other student's games not significant



**Table 27b: Perpetrators of Indirect Bullying by Form**

Mode of bullying	Form	Response	Current Mental Health Status								Test	
			No Distress		Evidence of Distress		Severe Psychological Distress		Total			
			No.	%	No.	%	No.	%	No.	%		
How frequently have you refused to play with other students	1	Never	80	55.2	38	26.2	27	18.6	145	100	$X^2=30.589$ $df=6$ $P=.000(*)$	
		Seldom	23	62.2	14	37.8	0	.0	37	100		
		Frequently	2	33.3	3	50.0	1	16.7	6	100		
		Very frequently	1	9.1	6	54.5	4	36.4	11	100		
	2	Never	220	56.7	114	29.4	54	13.9	388	100		
		Seldom	80	70.2	31	27.2	3	2.6	114	100		
		Frequently	10	45.5	12	54.5	0	0	22	100		
		Very frequently	11	32.4	15	44.1	8	23.5	34	100		
	3	Never	121	49.6	80	32.8	43	17.6	244	100		$X^2=37.041$ $df=6$ $P=.000(*)$
		Seldom	70	72.9	26	27.1	0	.0	96	100		
		Frequently	7	30.4	14	60.9	2	8.7	23	100		
		Very frequently	11	57.9	3	15.8	5	26.3	19	100		
4	Never	51	55.4	28	30.4	13	14.1	92	100	$X^2=34.065$ $Df=6$ $P=.000(*,a,b)$		
	Seldom	12	80.0	3	20.0	0	.0	15	100			
	Frequently	0	.0	10	100.0	0	.0	10	100			
	Very frequently	0	.0	6	100.0	0	.0	6	100			
How frequently have you said you would not be friends with other students?	1	Never	29	40.8	37	52.1	5	7.0	71	100	$X^2=46.896$ $df=6$ $P=0.000(*a)$	
		Seldom	39	68.4	5	8.8	13	22.8	57	100		
		Frequently	7	50.0	1	7.1	6	42.9	14	100		
		Very frequently	5	31.3	11	68.8	0	.0	16	100		
	2	Never	120	53.1	81	35.8	25	11.1	226	100		
		Seldom	79	53.4	52	35.1	17	11.5	148	100		
		Frequently	41	71.9	15	26.3	1	1.8	57	100		
		Very frequently	4	19.0	13	61.9	4	19.0	21	100		
	3	Never	67	47.9	53	37.9	20	14.3	140	100		$X^2=13.451$ $df=6$ $P=.036(*)$
		Seldom	60	54.5	37	33.6	13	11.8	110	100		
		Frequently	29	72.5	4	10.0	7	17.5	40	100		
		Very frequently	11	68.8	3	18.8	2	12.5	16	100		
	4	Never	15	40.5	22	59.5	0	.0	37	100		$X^2=35.850$ $df=6$ $P=.000(*,a,b)$
		Seldom	31	63.3	6	12.2	12	24.5	49	100		
		Frequently	0	.0	1	50.0	1	50.0	2	100		
		Very frequently	4	28.6	10	71.4	0	.0	14	100		
How frequently	1	Never	47	42.3	44	39.6	20	18.0	111	100	$X^2=27.652$ $df=6$	
		Seldom	27	81.8	3	9.1	3	9.1	33	100		

do you tell nasty stories about other students that are not true?		Frequently	6	100	0	.0	0	.0	6	100	P=.000(*,a,b)	
		Very frequently	9	90.0	0	.0	1	10.0	10	100		
	2	Never	131	50.4	105	40.4	24	9.2	260	100	X <sup>2</sup> =13.529 df=6 P=.035(*)	
		Seldom	71	55.0	45	34.9	13	10.1	129	100		
		Frequently	19	57.6	8	24.2	6	18.2	33	100		
		Very frequently	12	85.7	0	.0	2	14.3	14	100		
	3	Never	100	51.3	69	35.4	26	13.3	195	100	X <sup>2</sup> =10.544 df=6 P=.104(a)	
		Seldom	54	59.3	22	24.2	15	16.5	91	100		
		Frequently	6	40.0	9	60.0	0	.0	15	100		
		Very frequently	6	60.0	2	20.0	2	20.0	10	100		
	4	Never	27	40.3	33	49.3	7	10.4	67	100	X <sup>2</sup> =6.108 df=6 P=.411(a,b)	
		Seldom	5	31.3	7	43.8	4	25.0	16	100		
		Frequently	3	60.0	2	40.0	0	.0	5	100		
		Very frequently	5	62.5	3	37.5	0	.0	8	100		
	How frequently do you spoil other students games	1	Never	75	60.5	38	30.6	11	8.9	124	100	X <sup>2</sup> =4.176 df=6 P=.653(a,b)
			Seldom	9	45.0	8	40.0	3	15.0	20	100	
Frequently			2	100	0	.0	0	.0	2	100		
Very frequently			2	40.0	2	40.0	1	20.0	5	100		
2		Never	179	53.4	123	36.7	33	9.9	335	100	X <sup>2</sup> =9.506 df=6 P=.147	
		Seldom	43	59.7	19	26.4	10	13.9	72	100		
		Frequently	12	44.4	10	37.0	5	18.5	27	100		
		Very frequently	15	75.0	5	25.0	0	.0	20	100		
3		Never	121	54.0	73	32.6	30	13.4	224	100	X <sup>2</sup> =6.310 df=6 P=.389(a)	
		Seldom	31	64.6	12	25.0	5	10.4	48	100		
		Frequently	10	41.7	12	50.0	2	8.3	24	100		
		Very frequently	6	60.0	2	20.0	2	20.0	10	100		
4		Never	45	52.3	34	39.5	7	8.1	86	100	X <sup>2</sup> =3.946 df=4 P=.413(a,b)	
		Seldom	6	42.9	5	35.7	3	21.4	14	100		
		Frequently	0	.0	0	.0	0	.0	0	.0		
		Very frequently	0	.0	1	100.0	0	.0	1	100		

Results are based on nonempty rows and columns in each innermost subtable.

\* The Chi-square statistic is significant at the 0.05 level.

a More than 20% of cells in this subtable have expected cell counts less than 5. Chi-square results may be invalid.

b The minimum expected cell count in this subtable is less than one. Chi-square results may be invalid.

#### 4.14 PSYCHOLOGICAL EFFECTS OF BULLYING AND SCHOOL TYPE

The three different types of schools have varying psychological effects of bullying.

Modes with statistical significant on the victims of direct bullying as shown by table 28a:

1. Being called a nasty name; Mixed (p=0.001)

2. Having belongings taken; not significant
3. Having lies told about self; Girls(p=0.002) and Mixed (p=0.000)
4. Having nasty tricks played on one, Girls (p=0.009) Mixed (p=0.001) and Boys (p=0.024)
5. Threatened or blackmailed; not significant
6. Being hit or beaten; Boys (p=0.000), Girls (p=0.000) and Mixed (p=0.013)

**Table 28a: Psychological effects of Victims of Direct Bullying by School Type**

Mode of Bullying	Type of School	Mental Health Status								Test
		No Distress		Evidence of Distress		Severe Psychological Distress		Total		
		No	%	No	%	No	%	No	%	
Was called bad/nasty name	Boys Only	256	54.4	159	33.8	56	11.9	471	100	$X^2=2.268$ df=2 P=0.322
	Girls Only	50	56.8	34	38.6	4	4.5	88	100	$X^2=26.257$ df=2 P=0.322
	Mixed	208	57.9	117	32.6	34	9.5	359	100	$X^2=14.417$ df=2 P=0.001
Had belongings taken	Boys Only	300	56.1	171	32.0	64	12.0	535	100	$X^2=0.164$ df=2 P=0.921
	Girls Only	46	53.5	28	32.6	12	14.0	86	100	$X^2=0.564$ df=2 P=0.754
	Mixed	204	55.9	114	31.2	47	12.9	365	100	$X^2=0.056$ df=2 P=0.973
Had lies told about self	Boys Only	242	55.4	149	34.1	46	10.5	437	100	$X^2=4.726$ df=2 P=0.094
	Girls Only	52	60.5	22	25.6	12	14.0	86	100	$X^2=12.559$ df=2 P=0.002
	Mixed	212	59.7	86	24.2	57	16.1	355	100	$X^2=29.913$ df=2 P=0.000
Had nasty tricks played on him/her	Boys Only	255	52.9	168	34.9	59	12.2	482	100	$X^2=7.464$ df=2 P=0.024
	Girls Only	34	51.5	28	42.4	4	6.1	66	100	$X^2=9.439$ df=2 P=0.009
	Mixed	164	54.7	108	36.0	28	9.3	300	100	$X^2=13.762$ df=2 P=0.001
Was threatened	Boys Only	191	54.3	119	33.8	42	11.9	352	100	$X^2=1.064$ df=2 P=0.588

/blackmailed	Girls Only	31	62.0	13	26.0	6	12.0	50	100	$X^2=3.833$ df=2 P=0.147
	Mixed	115	59.6	58	30.1	20	10.4	193	100	$X^2=2.728$ df=2 P=0.256
Was hit/beaten up	Boys Only	175	47.4	139	37.7	55	14.9	369	100	$X^2=24.668$ df=2 P=0.000
	Girls Only	27	43.5	27	43.5	8	12.9	62	100	$X^2=4.972$ df=2 P=0.000
	Mixed	129	50.2	95	37.0	33	12.8	257	100	$X^2=8.624$ df=2 P=0.013

Modes with statistical significant on the victims of indirect bullying as shown by table 28b:

1. other students refusing to play with you; not significant
2. other students refusing to be friends with you any more; Girls (p=0.030) and Mixed (p=0.037)
3. other students telling nasty stories about you that are not true; not significant
4. Other students spoil your game deliberately; Girls (p=0.033) and Mixed (p=0.003)

**Table 28b: Psychological effects of Victims of Indirect Bullying by School Type**

Mode of Bullying	Type of School	Mental Health Status								Test
		No Distress		Evidence of Distress		Severe Psychological Distress		Total		
		No	%	No	%	No	%	No	%	
Other students refuse to play with you	Boys Only	52	63.4	24	29.3	6	7.3	82	100	$X^2=3.027$ df=2 P=0.220
	Girls Only	9	69.2	2	15.4	2	15.4	13	100	$X^2=2.443$ df=2 P=0.295
	Mixed	26	68.4	9	23.7	3	7.9	38	100	$X^2=2.767$ df=2 P=0.251
Other students say they will not be your friends any more	Boys Only	53	54.6	34	35.1	10	10.3	97	100	$X^2=0.938$ df=2 P=0.626
	Girls Only	9	36.0	14	56.0	2	8.0	25	100	$X^2=5.513$ df=2 P=0.030
	Mixed	34	45.9	32	43.2	8	10.8	74	100	$X^2=6.577$ df=2 P=0.037

Other students tell nasty stories about you that are not true	Boys Only	14 6	50.0	109	37.3	37	12.7	311	100	$X^2=2.821$ df=2 P=0.244
	Girls Only	40	47.1	35	41.2	10	11.8	85	100	$X^2=6.420$ df=2 P=0.673
	Mixed	14 4	52.4	93	33.8	38	13.8	275	100	$X^2=1.767$ df=2 P=0.413
Other students deliberately spoil your game	Boys Only	96	49.7	69	35.8	28	14.5	193	100	$X^2=2.543$ df=2 P=0.649
	Girls Only	15	57.7	7	26.9	4	15.4	26	100	$X^2=6.801$ df=2 P=0.033
	Mixed	45	52.9	24	28.2	16	18.8	85	100	$X^2=11.636$ df=2 P=0.003

Modes with statistical significant on the perpetrators as shown by table 28a

1. calling others a bad or nasty name; Girls (p=0.007) and Mixed (p=0.000)
2. taking belongings from others; Girls (p=0.030) and Mixed (p=0.000)
3. telling lies about others; Mixed (p=0.007)
4. playing nasty tricks on others Mixed (p=0.031)
5. threatening or blackmailing others, not significant
6. hitting or beating others; Girls (p=0.022), Mixed (p=0.001)

**Table 29a: Psychological effects of Perpetrators of Direct Bullying by School Type**

Mode of Bullying	Type of School	Response	Mental Health Status								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No	%	No	%	No	%	No	%	
Called others bad/nasty name	Boys Only	Yes	240	57.8	134	32.3	41	9.9	415	100	$X^2=5.893$ df=2 P=0.53
		No	118	52.0	72	31.7	37	16.3	227	100	
	Girls Only	Yes	30	69.8	11	25.6	2	4.7	43	100	$X^2=10.011$ df=2 P=0.007
		No	30	41.1	29	39.7	14	19.2	73	100	
	Mixed	Yes	156	67.0	56	24.0	21	9.0	233	100	$X^2=22.307$ df=2 P=0.000
		No	125	46.1	101	37.3	45	16.6	271	100	
Took belongings from other students	Boys Only	Yes	130	55.1	71	30.1	35	14.8	236	100	$X^2=2.705$ df=2 P=0.259
		No	228	56.2	135	33.3	43	10.6	406	100	
	Girls Only	Yes	13	50.0	13	50.0	0	0	26	100	$X^2=6.981$ df=2 P=0.030
		No	47	52.2	27	30.0	16	17.8	90	100	
	Mixed	Yes	96	71.1	29	21.5	10	7.4	135	100	$X^2=17.889$ df=2 P=0.000
		No	185	50.1	128	34.7	56	15.2	369	100	
Told lies about	Boys Only	Yes	170	54.7	97	31.2	44	14.1	311	100	$X^2=2.265$ df=2 P=0.322
		No	188	56.8	109	32.9	34	10.3	331	100	

other students	Girls Only	Yes	26	53.1	15	30.6	8	16.3	49	100	$X^2=0.793$ df=2 P=0.673
		No	34	50.7	25	37.3	8	11.9	67	100	
	Mixed	Yes	138	62.2	53	23.9	31	14.0	222	100	$X^2=9.896$ df=2 P=0.007
		No	143	50.7	104	36.9	35	12.4	282	100	
Played nasty tricks on other	Boys Only	Yes	209	54.6	121	31.6	53	13.8	383	100	$X^2=2.543$ df=2 P=0.280
		No	149	57.5	85	32.8	25	9.7	259	100	
	Girls Only	Yes	30	46.3	23	35.4	12	18.5	65	100	$X^2=3.258$ df=2 P=0.196
		No	30	58.8	17	33.3	4	7.8	51	100	
	Mixed	Yes	130	51.0	93	36.5	32	12.5	255	100	$X^2=6.916$ df=2 P=0.031
		No	151	60.6	64	25.7	34	13.7	249	100	
Threatened/black mailed other students	Boys Only	Yes	176	57.9	92	30.3	36	11.8	304	100	$X^2=1.114$ df=2 P=0.573
		No	182	53.8	114	33.7	42	12.4	338	100	
	Girls Only	Yes	12	46.2	10	38.5	4	15.4	26	100	$X^2=0.416$ df=2 P=0.812
		No	48	53.3	30	33.3	12	13.3	90	100	
	Mixed	Yes	81	55.9	45	31.0	19	13.1	145	100	$X^2=0.001$ df=2 P=0.999
		No	200	55.7	112	31.2	47	13.1	356	100	
Has hit/beaten up other students	Boys Only	Yes	166	55.0	100	33.1	36	11.9	302	100	$X^2=0.276$ df=2 P=0.871
		No	192	56.5	106	31.2	42	12.4	340	100	
	Girls Only	Yes	15	36.6	22	53.7	4	9.8	41	100	$X^2=10.321$ df=2 P=0.006
		No	45	60.0	18	24.0	12	16.0	75	100	
	Mixed	Yes	87	49.2	73	41.2	17	9.6	257	100	$X^2=13.591$ df=2 P=0.001
		No	194	59.3	84	25.7	49	15.0	327	100	

Modes with statistical significant on the perpetrators of indirect bullying as shown by table 29b

1. Refusing to play with others; Boys (p=0.000) Girls(p=0.002) Mixed (p=0.000)
2. Refusing to be friends with others; Girls (p=0.009) and) Mixed (p=0.000)
3. Telling nasty stories about others; Boys (p=0.003) Girls(p=0.012) Mixed (p=0.000)
4. Spoiling other student's games ; Girls (p=0.002)

Table 29b: Psychological effects of Perpetrators of Indirect Bullying by School Type

Mode of Bullying	Type of School	Response	Mental Health Status								Test	
			No Distress		Evidence of Distress		Severe Psychological Distress		Total			
			No	%	No	%	No	%	No	%		
Refuse to play with other students	Boys Only	Never	215	52.1	136	32.9	62	15.0	413	100	$\chi^2=45.331$ df=6 P=0.000	
		Seldom	115	71.0	44	27.2	3	1.9	162	100		
		Frequently	15	44.1	17	50.0	2	5.9	34	100		
		Very Frequently	13	39.4	9	27.3	11	33.3	33	100		
	Girls Only	Never	51	58.0	23	26.1	14	15.9	88	100		$\chi^2=20.582$ df=6 P=0.002
		Seldom	7	63.9	4	36.4	0	0	11	100		
		Frequently	0	0	5	100	0	0	5	100		
		Very Frequently	2	16.7	8	66.7	2	16.7	12	100		
	Mixed	Never	206	56.0	101	27.4	61	16.6	368	100		$\chi^2=48.401$ df=6 P=0.000
		Seldom	63	70.8	26	29.2	0	0	89	100		
		Frequently	4	18.2	17	77.3	1	4.5	22	100		
		Very Frequently	8	32.0	13	52.0	4	16.0	25	100		
Refuse to be friends with other students	Boys Only	Never	139	51.6	96	35.4	36	13.3	271	100	$\chi^2=11.450$ df=6 P=0.075	
		Seldom	91	48.9	74	39.8	21	11.3	186	100		
		Frequently	37	64.9	17	29.8	3	5.3	57	100		
		Very Frequently	7	53.8	2	15.4	4	30.8	13	100		
	Girls Only	Never	14	42.4	17	51.5	2	6.1	33	100		$\chi^2=17.039$ df=6 P=0.009
		Seldom	18	51.4	9	25.7	8	22.9	35	100		
		Frequently	11	78.6	1	7.1	2	14.3	14	100		
		Very Frequently	4	36.4	7	63.6	0	0	11	100		
	Mixed	Seldom	100	69.9	17	11.9	26	18.2	143	100		$\chi^2=81.355$ df=6 P=0.000
		Frequently	29	69.0	3	7.1	10	23.8	42	100		
		Very frequently	13	30.2	28	65.1	2	4.7	43	100		
	Tell nasty stories about others that are not true	Boys Only	Never	153	53.3	108	37.6	26	9.1	287		100
Seldom			77	45.5	59	34.9	33	19.5	169	100		
Frequently			19	44.2	18	41.9	6	14.0	43	100		
Very Frequently			18	81.8	2	9.1	2	9.1	22	100		
Girls Only		Never	27	38.6	31	44.3	12	17.1	70	100	$\chi^2=12.916$ df=6 P=0.012	
		Seldom	14	73.7	5	26.3	0	0	19	100		
		Frequently	0	0	0	0	0	0	0	0		
		Very Frequently	4	100	0	0	0	0	4	100		

	Mixed	Never	125	45.3	112	40.6	39	14.1	276	100	<b>X<sup>2</sup>=45.745</b> <b>df=6</b> <b>P=0.000</b>
		Seldom	66	81.5	13	16.0	2	2.5	81	100	
		Frequently	15	93.8	1	6.3	0	0	16	100	
		Very frequently	10	62.5	3	18.8	3	18.8	16	100	
<b>Deliberately spoil other students game</b>	Boys Only	Never	187	52.5	129	36.2	40	11.2	356	100	<b>X<sup>2</sup>=9.508</b> <b>df=6</b> <b>P=0.147</b>
		Seldom	51	49.0	33	31.7	20	19.2	104	100	
		Frequently	16	45.7	12	34.3	7	20.0	35	100	
		Very Frequently	20	69.0	7	24.1	2	6.9	29	100	
	Girls Only	Never	39	53.4	28	38.4	6	8.2	73	100	<b>X<sup>2</sup>=16.611</b> <b>df=6</b> <b>P=0.002</b>
		Seldom	12	100	0	0	0	0	12	100	
		Frequently	0	0	4	100	0	0	4	100	
		Very Frequently	0	0	0	0	0	0	0	0	
	Mixed	Never	194	57.1	111	32.6	35	10.3	340	100	<b>X<sup>2</sup>=5.542</b> <b>df=6</b> <b>P=0.476</b>
		Seldom	26	68.4	11	28.9	1	2.6	38	100	
		Frequently	3	42.9	3	42.9	1	14.3	7	100	
		Very frequently	3	42.9	3	42.9	1	14.3	7	100	

Day and Boarding Schools have different response to bullying by virtue of their natures. This leads to different psychological effects on the students.

Modes with statistical significance on the victims as shown by table 30

1. Being called a nasty name; Day (p=0.000)
2. Having belongings taken; not significant
3. Having lies told about self; Day (p=0.000)
4. Having nasty tricks played on one, Boarding (p=0.024) Day (p=0.000)
5. Threatened or blackmailed; not significant
6. Being hit or beaten; Boarding (p=0.000), Day (p=0.001)



Table 30: Psychological effects of Victims of Direct Bullying by School Category

Mode of bullying	Category of School	Responses	Current Mental Health Status								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No	%	No	%	No	%	No	%	
Been called bad/nasty name	Boarding	Yes	256	54.4	159	33.8	56	11.9	471	100	$X^2=2.268$ df=2 P=0.322
		No	102	59.6	47	27.5	22	12.9	171	100	
	Day	Yes	258	57.7	151	33.8	38	8.5	447	100	$X^2=31.220$ df=2 P=0.000
		No	83	48.0	46	26.6	44	25.4	173	100	
Had Belongings taken	Boarding	Yes	300	56.1	171	32.0	64	12.0	535	100	$X^2=0.164$ df=2 P=0.921
		No	58	54.2	35	32.7	14	13.1	107	100	
	Day	Yes	250	55.4	142	31.2	59	13.1	451	100	$X^2=0.125$ df=2 P=0.939
		No	91	53.8	55	32.5	23	13.6	169	100	
Had lies Told about self	Boarding	Yes	242	55.2	149	34.1	46	10.5	437	100	$X^2=4.726$ df=2 P=0.094
		No	116	56.6	57	27.8	32	15.6	205	100	
	Day	Yes	264	59.9	108	24.5	69	15.6	441	100	$X^2=38.845$ df=2 P=0.000
		No	77	43.0	89	49.7	13	7.3	179	100	
Had nasty tricks played on	Boarding	Yes	255	52.9	168	34.9	59	12.2	482	100	$X^2=7.464$ df=2 P=0.024
		No	103	64.4	38	23.8	19	11.9	160	100	
	Day	Yes	198	54.1	136	37.2	32	8.7	366	100	$X^2=21.856$ df=2 P=0.000
		No	143	56.3	61	24.0	50	19.7	254	100	
Was threatened/blackmailed by other students	Boarding	Yes	191	54.3	119	33.8	42	11.9	352	100	$X^2=1114$ df=2 P=0.573
		No	167	57.6	87	30.0	36	12.4	290	100	
	Day	Yes	146	60.1	71	29.2	26	10.7	243	100	$X^2=4.627$ df=2 P=0.099
		No	195	51.7	126	33.4	56	14.9	377	100	
Was Hit or beaten up by other students	Boarding	Yes	175	47.4	139	37.7	55	14.9	369	100	$X^2=13.004$ df=2 P=0.000
		No	183	67.0	67	24.5	23	8.4	273	100	
	Day	Yes	156	48.9	122	38.2	41	12.9	319	100	$X^2=13.168$ df=2 P=0.001
		No	185	61.5	75	24.9	41	13.6	301	100	

Modes with statistical significant on the perpetrators as shown by table 31:

1. calling others a bad or nasty name; Day (p=0.000)

2. taking belongings from others; Day ( $p=0.000$ )
3. telling lies about others; Day ( $p=0.000$ )
4. playing nasty tricks on others Day ( $p=0.026$ )
5. threatening or blackmailing others, not significant
6. hitting or beating others; Day ( $p=0.000$ ),)

**Table 31: Psychological effects of perpetrators of Direct Bullying by School Category**

Mode of bullying	Category of school	Response	Current Mental Health Status								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No	%	No	%	No	%	No	%	
Called other students bad/nasty names	Boarding	Yes	240	57.8	134	32.2	41	9.9	415	100	$X^2=5.893$ df=2 P=0.053
		No	118	52.0	72	31.7	37	16.3	227	100	
	Day	Yes	186	67.4	67	24.3	23	8.3	276	100	$X^2=31.693$ df=2 P=0.000
		No	155	45.1	130	37.8	59	17.2	344	100	
Taking belongings from others	Boarding	Yes	130	55.1	71	30.1	35	14.8	236	100	$X^2=2.705$ df=2 P=0.259
		No	228	56.2	135	33.3	43	10.6	406	100	
	Day	Yes	109	67.7	42	26.1	10	6.2	161	100	$X^2=16.684$ df=2 P=0.000
		No	232	50.5	155	33.8	72	15.7	459	100	
Told lies about others	Boarding	Yes	170	54.7	97	31.2	44	14.1	311	100	$X^2=2.265$ df=2 P=0.041
		No	188	56.8	109	32.9	34	10.3	331	100	
	Day	Yes	164	60.5	68	25.1	39	14.4	271	100	$X^2=38.845$ df=2 P=0.000
		No	177	50.7	129	37.0	43	12.3	349	100	
Played nasty tricks on others	Boarding	Yes	209	54.6	121	31.6	53	13.8	383	100	$X^2=2.543$ df=2 P=0.280
		No	149	57.5	85	32.8	25	9.7	259	100	
	Day	Yes	160	50.0	116	36.6	44	13.8	320	100	$X^2=7.313$ df=2 P=0.026
		No	181	60.3	81	27.0	38	12.7	300	100	
Threatened/blackmailed other students	Boarding	Yes	176	57.9	92	30.3	36	11.8	304	100	$X^2=1.114$ df=2 P=0.573
		No	182	53.8	114	33.7	42	12.4	338	100	
	Day	Yes	93	54.4	55	32.2	23	13.5	171	100	$X^2=0.036$ df=2 P=0.982
		No	248	55.2	142	31.6	59	13.1	449	100	
Hit or	Boarding	Yes	166	55.0	100	33.1	36	11.9	302	100	$X^2=0.276$

beat up another student		No	192	56.5	106	31.2	42	12.4	340	100	df=2 P=0.871
	Day	Yes	102	46.8	95	43.6	21	9.6	218	100	X <sup>2</sup> =22.146 df=2 P=0.000
		No	239	59.5	102	25.4	61	15.2	402	100	

Modes with statistical significance for victims of indirect bullying as shown by table 32:

1. other students refusing to play with you; not significant
2. other students refusing to be friends with you any more; Day (p=0.003)
3. other students telling nasty stories about you that are not true; not significant
4. Other students spoil your game deliberately; Day (p=0.030)

**Table 32: Psychological effects on Victims of Indirect Bullying by Category of School**

Mode of bullying	Category of school	Response	Current Mental Health Status								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No	%	No	%	No	%	No	%	
Other students refuse to play with you	Boarding	Yes	52	63.4	24	29.3	6	7.3	82	100	X <sup>2</sup> =3.027 df=2 p=0.220
		No	306	54.6	182	32.5	72	12.9	560	100	
	Day	Yes	35	68.6	11	21.6	5	9.8	51	100	X <sup>2</sup> =4.190 df=2 P=0.123
		No	306	53.8	186	32.7	77	13.5	569	100	
Other students say they will not be your friends any more	Boarding	Yes	53	54.6	34	35.1	10	10.3	97	100	X <sup>2</sup> =0.938 df=2 p=0.626
		No	259	53.1	161	33.0	68	13.9	488	100	
	Day	Yes	43	43.4	46	46.5	10	10.1	99	100	X <sup>2</sup> =11.978 df=2 p=0.003
		No	292	60.6	140	29.0	50	10.4	482	100	
Other students tell nasty stories about you that are not true	Boarding	Yes	146	50.0	109	37.3	37	12.7	292	100	X <sup>2</sup> =2.821 df=2 p=0.244
		No	148	54.2	84	30.8	41	15.0	273	100	
	Day	Yes	184	51.1	128	35.6	48	13.3	360	100	X <sup>2</sup> =4.646 df=2 p=0.098
		No	146	59.1	68	27.5	33	13.4	247	100	

Other students deliberately spoil your game	Boarding	Yes	96	49.7	69	35.8	28	14.5	193	100	$\chi^2=0.865$ df=2 p=0.649
		No	197	53.1	129	34.8	45	12.1	371	100	
	Day	Yes	60	54.1	31	27.9	20	18.0	111	100	$\chi^2=16.153$ df=2 P=0.040
		No	243	55.6	166	38.0	28	6.4	437	100	

Modes with statistical significance among perpetrators of indirect bullying as shown by table 33:

7. Refusing to play with others; Boarding (p=0.000) and Day(p=0.000)
8. Refusing to be friends with others; Day (p=0.000)
9. Telling nasty stories about others; Boarding (p=0.003) and Day (p=0.000)
10. Spoiling other student's games ; Day (p=0.002)

Table 33: Psychological effect on Perpetrators of Indirect Bullying by Category of School

Mode of bullying	Category of school	Response	Current mental state								Test
			No Distress		Evidence of Distress		Severe Psychological Distress		Total		
			No	%	No	%	No	%	No	%	
Refuse to play with other students	Boarding	Never	215	52.1	136	32.9	62	15.0	413	100	$\chi^2=45.331$ df=6 P=0.000
		Seldom	115	71.0	44	27.2	3	1.9	162	100	
		Frequently	15	44.1	17	50	2	5.9	34	100	
		Very frequently	13	39.4	9	27.3	11	33.3	33	100	
	Day	Never	257	56.4	124	27.2	75	16.4	456	100	$\chi^2=67.715$ df=6 P=0.000
		Seldom	70	70.0	30	30.0	0	0	100	100	
		Frequently	4	14.8	22	81.5	1	3.7	27	100	
		Very frequently	10	27.0	21	56.8	6	16.2	37	100	
Refuse to be	Boarding	Never	139	51.3	96	35.4	36	13.3	271	100	$\chi^2=11.450$ df=6
		Seldom	91	48.9	74	39.8	21	11.3	186	100	

friends with other students		Frequently	37	64.9	17	29.8	3	5.3	57	100	P=0.075
		Very frequently	7	53.8	2	15.4	4	30.8	13	100	
	Day	Never	92	45.3	97	47.8	14	6.9	203	100	X <sup>2</sup> =93.549 df=6 P=0.000
		Seldom	118	66.3	26	14.6	34	19.1	178	100	
		Frequently	40	71.4	4	7.4	7.1	12	21.4	100	
		Very frequently	17	31.5	35	64.8	2	3.7	54	100	
Tell nasty stories about others that are not true	Boarding	Never	153	53.3	108	37.6	26	9.1	287	100	X <sup>2</sup> =20.199 df=6 P=0.003
		Seldom	77	45.6	59	34.9	33	19.5	169	100	
		Frequently	19	44.2	18	41.9	6	14.0	43	100	
		Very frequently	18	81.8	2	9.1	2	9.1	22	100	
	Day	Never	152	43.9	143	41.3	51	14.7	346	100	X <sup>2</sup> =56.104 df=6 P=0.000
		Seldom	80	80.0	18	18.0	2	2.0	100	100	
		Frequently	15	93.8	1	6.3	0	0	16	100	
		Very frequently	14	70.0	3	15.0	3	15.0	20	100	
Frequently spoil other students game deliberately	Boarding	Never	187	52.5	129	36.2	40	11.2	356	100	X <sup>2</sup> =9.508 df=6 P=0.147
		Seldom	51	49.0	33	31.7	20	19.2	104	100	
		Frequently	16	45.7	12	34.3	7	20.0	35	100	
		Very frequently	20	69.0	7	24.1	2	6.9	29	100	
	Day	Never	233	56.4	136	33.7	41	9.9	413	100	X <sup>2</sup> =13.656 df=6 P=0.034
		Seldom	38	76.0	11	22.0	1	2.0	50	100	
		Frequently	8	44.4	10	55.6	0	0	18	100	
		Very frequently	3	42.9	3	42.9	1	14.3	7	100	

After the analysis of the results it is clear that there is high prevalence of bullying in Kikuyu Division ( $p=0.000$ ) and this leads to psychological distress ( $p=0.000$ ). Therefore the null hypotheses was been rejected and the alternative hypotheses accepted.

## CHAPTER 5

### 5.0 DISCUSSIONS

#### 5.1 PREVALENCE OF BULLYING

The results of this study show that bullying is prevalent in the schools studied in Kikuyu Division of Kiambu District. The prevalence varied depending on the mode of bullying. The study looked at both direct and indirect bullying.

The results concur with those found by Ndetei et al (8) in a study conducted in Nairobi Secondary Schools: the prevalence varied between 63.2% and 80% while in the current study the prevalence varied between 48.2% and 78.1%. Having belongings taken had the highest prevalence (78.1%), almost a similar rate of 80.1% by Ndetei et al (8). Being threatened or blackmailed had the lowest prevalence (48.2%). In Ndetei et al (8) being threatened or blackmailed also had the lowest prevalence (63.2%), though higher than the current study. In Nigeria Egbochuku (6) found that different modes produced different prevalences and they were equally high. In other parts of the world studies carried out on prevalence of bullying indicate that bullying also takes place in these schools. In the UK Whitney and Smith (16) found that 27% reported being bullied regularly and 12% reported regular active bullying. Genta et al (56), in Italy, found that 46% of the students were bullied and 23% were actively bullying on a regular basis. In Jerusalem Schools Gofin et al (22) found that 57.1% of boys and 27% of girls were bullied by 50.3% of boys and 39.5% of girls. In other European studies on bullying the prevalence are lower than those found in this study (14, 15,17) where the prevalence ranged between 5% to 30%.

The study results show that different modes of bullying have different prevalence. Being beaten comprised 54.9% and having lies told about self has 70.0%. This concurs with Sampsons (11) who notes that beating is normally the least mode of bullying compared to spreading rumours about self. Telling lies about one is part of spreading rumours.

Possible explanations for the high prevalence in Kenya:

- The country does not have an effective anti bullying programmes like the ones established in many developed countries (57).

- Many acts of bullying are entrenched within the school systems such that they appear as an accepted norm. For example calling nasty names such as “mono’ (meaning one) to the form one appears normal and nobody raises any protest over the issue.
- Those who were bullied want to revenge what they went through.

## **5.2 BULLYING AND PSYCHOLOGICAL DISORDERS**

The research shows that bullying causes psychological distress ( $p=0.000$ ). These findings concur with findings on Swedish and English school children on bullying where victims were found to be more anxious than those who had not experienced bullying (35,39). The findings also concur with Rigby’s (32) findings in a study of Australian school children using the GHQ who noted that more victimized children than those not victimized showed high levels of anxiety, social dysfunction, depression as well as various somatic symptoms.. It also concurs with the findings of Kaltaila-Heino et al (44) who found increased prevalence of anxiety, depression and psychosomatic symptoms among bully- victims in a study of Finnish adolescent students.

Feelings of helplessness, rejection, fear and being demeaned when victimized occur and these lead to psychological distress. Many victims are quarreled by their parents who can not understand why their children are weaklings. Phrases such as ‘aren’t you man enough’ are common to the male victims by their parents. This creates fear among the students and so don’t report incidents of bullying but suffer in silence.

The findings that students were bullied by their own classmates, who, in most cases are their age mates, could be due to the fact that in a school day, the individual student is in contact with the class mates for most of the hours and therefore more interaction with them as opposed to members of other classes. The classmates know them better and are therefore capable of hurting them most. These findings were similar to those of Ndetei et al (9) and Fekkes (21).

Bullying acts were mainly carried out in schools. This is similar to other findings (3, 10, 11, 26,27). This could be due to the fact that the students are together most of the school hours in school.

Within the school, the play ground was the major single area where bullying was common. The students did not specify the 'other' places of bullying acts. Other studies have also pointed out that the play ground is a major point where bullying takes place. This is where adult supervision is minimum (6, 29). Students can perform the bullying acts as they pretend to be playing. There is need then for more active adult supervision in the play grounds.

This research, which was carried out in a rural setting elicited similar results as the study by Ndeti et al (8) which was done in an urban setting. It can therefore be concluded that bullying exists in both urban and rural schools in Kenya. It also compares to a study of bullying in the U.S.A where there was no difference between bullying in the urban, peri-urban and rural communities (27) and another done in Canada by Sampsons (11). The similarities found in this country can be explained by a number of factors: As had been noted earlier there lacks a policy in the country to guide on how to implement anti bullying activities in the schools. There is a constant movement of students from rural to urban and vice-versa and admission depending on the marks achieved by students.. As a result students in rural schools can and do have relatives in urban schools and as they exchange notes on how their schools are, they 'borrow' ideas of bullying as well. There is frequent transfer of students from one school to another and this transfers ideas of bullying from rural to urban setting. At the same time, incidents of bullying are reported in the media and so students know what is going on in the schools throughout the country. This could explain the high prevalence of bullying in both rural and urban areas.

### **5.3 BULLYING AND GENDER**

The study established that both boys and girls were involved in bullying both as victims and perpetrators. The prevalence was high for both but significant differences were found in different modes of bullying: having belongings taken had ( $p=0.003$ ) for boys. In this particular mode it could be due to the fact that there was a Boys Boarding School where the prevalence of taking ones belongings was highest. This was discussed under Boarding and Day Schools. Nasty tricks played on one ( $p= 0.001$ )-males and being threatened or



blackmailed ( $p= 0.017$ )-males, other student deliberately spoiling ones games was higher among the males ( $p 0.004$ ). This could be due to the physical aggressiveness of boys compared to the girls (21). Among the victims of indirect bullying only telling nasty stories about the individual was higher among the females as compared to males ( $p= 0.048$ ). It can be speculated that since girls value social relationships more than boys do, so girl bullies set out to disrupt social relationships with gossip, isolation, silent treatment and exclusion. (11).

In terms of being perpetrators, though both boys and girls were involved, there were significant differences between the two. The males had higher rates of perpetrating than the females in all modes apart from telling lies which was not statistically significant ( $p= 0.231$ ). In perpetration of indirect bullying, the males were still leading the females apart from the mode of refusing to be friends with others where the girls were leading ( $p= 0.000$ ). These findings are similar to those of Boulton and Underwood (15), Forero et al (24) and (6,10,25,26,27), where males were reported to be more involved in bullying than females. On the whole prevalence of perpetrating bullying acts were much lower compared to reported victimization. This corresponds to Ndetei et al and Fekes (21) findings.

Girls are reported to participate more in social exclusion as a way of bullying (27) while boys participate more in physical bullying. In the research girls refusing to be friends with others had ( $p=0.000$ ) while the boys threatened more ( $p=0.017$ ). This as mentioned earlier is because the girls value friendship and they know that it hurts to deny one friendship.

#### **5.4 PSYCHOLOGICAL EFFECTS OF BULLYING AND GENDER**

Different modes of bullying produced psychological distress. Girls are more distressed by being called a nasty name compared to boys ( $p=0.000$ ), similarly having lies told about them distressed the females but not the males ( $p= 0.000$ ). Having nasty tricks played on the individual was distressful to the males than the females ( $p= 0.001$ ), being hit was more distressful to the males than the females ( $p= 0.000$ ). It is possible that the cultural aspect comes to play where men are not to be hit. This may injure the male ego especially

if hit in the presence of one's girlfriend or friends where one is likely to lose face. Victims of indirect bullying also had psychological distress. In this category only females had ( $p=0.003$ ) when others refused to play with them. It could be postulated that females are more social and feel bad when rejected by others.

### **5.5 AGE AND BULLYING**

The study showed no statistical difference in bullying among the age groups. All age groups had been bullied.

Psychological effects of bullying and age varied on the mode and the age category. Being called a nasty name had ( $p=0.001$ ) for 14-15 year olds and for the 16-17 year olds it was ( $p=0.000$ ). This is more significant for the 16-17 age groups compared to the younger children. The younger children might find it okay to be called a nasty name but it is more demeaning to the older children. Also having belongings taken ( $p=0.003$ ) was more distressful for the 14-15 year olds. This could be because the younger groups might not know how to explain the loss of their items or it is their first experience to lose items. If they are in a boarding school they don't have other items to use, and at the same time they have not made friends who can help them until their parents come. They could also be distressed about explaining to their parents about their losses or even how to get others. Being beaten was statistically significant for age categories 16-17 (0.00), 18-19 ( $p=0.000$ ) and 20+ ( $p=0.000$ ). The older group could feel humiliated by the beating and especially if beaten in the presence of the younger children.

### **5.6 BULLYING BY FORM**

Bullying by form was significant depending on the mode. This was mainly affecting the form ones and twos which corresponds to a lower age. This corresponds to the definition of bullying where the weak are bullied most. The weak here are the younger ones.

The psychological distress was experienced more by the lower classes, who needless to say are the younger ones in the school and therefore the weaker. This corresponds to findings by Whitney et al (16) which noted that bullying varies with year of school.

### **5.7 TYPE OF SCHOOL AND BULLYING**

In the three types of schools there were different results depending on the mode of bullying. Bullying was more common in Boy's school only than in mixed and girls schools. This could be due to what had been discussed earlier about the aggressive nature of the boys. In the Mixed School the less bullying could be explained by the presence of the girls.

Psychological distress was experienced by students in the three groups of schools. This was determined by the different mode of bullying. Though the Boys school was more involved in bullying, the psychological distress was felt in all the schools depending on the mode. The Mixed school and the Girls Only school are day schools and this has an effect on the interpretation of the bullying acts, also the two schools have girls who interpret bullying differently from the boys.

### **5.8 BOARDING AND DAY SCHOOLS**

Results of this study suggested that bullying was done in both Boarding and Day schools but it was more significant in the Boarding school. This corresponds to findings by Ndetei et al (8). It can be postulated that:

- there is more bullying in Boarding schools because the students are in contact with each other more than in day schools, they are together in the evenings and weekends when the day students are at their different homes
- in boarding schools there are more items available for picking compared to a day school
- loss of items in a day school can be replaced almost immediately but in boarding one has to do without in most cases thinks of ways of surviving.
- Some students genuinely lack items due to the poverty levels of their parent or guardians and so some tend to steal.
- When a student is in the dorm due to one reason or another for example being ill they could steal items

The psychological distress related to of bullying is more prevalent in Day than Boarding school. Rigby (58) found that those children who lack social support from home and

school suffer more from bullying. Lack of support from peers in the evening in day schools could lead to more psychological distress than in boarding schools where the student is with the other students and so gets peer support if they had experienced bullying. At the same time students in boarding schools will have recovered from the shock of bullying before they meet their parents or guardian.

The study suggests that those who were bullied are likely to bully. This can be concluded from the fact that there are more students who bully when they are in forms two and three as compared to form one. Thus those who were bullied and other new cases participate in bullying. This was also found by Ndeti et al (8).

### **5.9 LIMITATIONS**

The study had limitations in that it only studied District Secondary schools within Kikuyu Division. The division has other types of schools. The findings of this study can therefore not be guaranteed.

### **5.10 DELIMITATION**

The study used Olweus Bullying Questionnaire and The General Health Questionnaire to measure the prevalence of bullying and psychological distress. These are internationally used instruments and it is therefore possible to compare the results to other international researches conducted. This gives credibility to the research work.

## 5.11 CONCLUSION

Bullying exists in Kikuyu Division of Kiambu District. The prevalence is also high. Bullying also leads to psychological distress. Different modes of bullying have different prevalence and psychological effects.

## 5.12 RECCOMEDATIONS

1. School administration should take the necessary actions to stop bullying so that the students can learn in a peaceful environment.
2. A similar study should be replicated in other provinces in Kenya so that should similar results be found a bullying policy for the whole country can be implemented.
3. The current research and the one of Ndetei et al (2007) indicate high prevalence of bullying. The school heads in the concerned areas should be ready to acknowledge it exists and implement the necessary measures against it.
4. There is need to develop a culture sensitive Bullying Questionnaire as the situation in Kenya is different from that of the developed countries. For example, many schools in Kenya have physical duties performed by students which constitute child labour in developed countries. These duties are a source of bullying in our situation. Kenya has more boarding schools than in developed countries.
5. It would be important to separate the various psychological disorders picked by the GHQ so as to know exactly what the students suffer from.
6. Schools should develop better communication channels so that the students can report bullying.
7. The Kenyan Education System is a relic of the British colonial that tended to give too much power to the prefects, who misuse their position to bully other students. This makes it hard for other students to approach them and report about the bullying. The school authority have to be aware incase such a problem exists in their schools and sort it for the welfare of the other students.

## TIME SCHEDULE

Proposal Development	February- May 2007
Approval	May -August 2007
Data Collection	September 2007
Data Analysis	September –October 2007
Results Presentation	October 2007
Discussion Preparation	October-December 2007
Discussion Presentation	December 2007
Handing In	February 2008

## BUDGET

### A: PROPOSAL PREPARATION:

1 Proposal typing and printing	Ksh. 2,000.00
2 Photocopies	Ksh 2,000.00
3 KNH Ethical Committee fees	<u>Ksh 500.00</u>
	Ksh 4000.00

### B: MATERIALS AND EQUIPMENT

1 10 pens	Ksh 100.00
2 10 folders	Ksh 300.00
3 Staples (2 packets)	Ksh 500.00
4 1 stapler	<u>Ksh 500.00</u>
	Ksh 1300.00

### C: QUESTIONNAIRES

Typing, printing and photocopying	Ksh 30,000.00
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#### D SUPPORT STAFF

1 Researcher (10 days times Ksh.2, 000/day)	Ksh 20,000.00
2 Biostatistician	<u>Ksh 50,000.00</u>
	Ksh 70,000.00

#### E COMMUNICATION

1. Proposal preparation	Ksh 2000.00
2 Telephone	Ksh 2000.00
3 Transport for researcher	<u>Ksh 3500.00</u>
	Ksh 7500.00

#### F DATA PROCESSING AND REPORT

1 Typing preliminary results	Ksh 3,000.00
2 Photocopies to supervisors	Ksh 2,500.00
3 Final draft (typing)	Ksh 2,000.00
4 Photocopies to supervisors	ksh 3,000.00
5 Printing and binding final report	Ksh 4,000.00
6 Binding of 10 books	<u>Ksh 2,000.00</u>
	Ksh 16,000.00

#### TOTAL COSTS

Total	Ksh 138,800
Contingency 10%	<u>Ksh 13,880</u>
	<b>Ksh 152,680</b>

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## **APPENDICES:**

### **Appendix 1:**

#### **School Principal Explanation and Consent Form:**

My name is Anne W. Mwayo, a Master of Science in Clinical Psychology student at the Department of Psychiatry, University of Nairobi. I have chosen to write my dissertation on “ Bullying: Prevalence and its Association with Psychological Disorders among students in Public District Schools in Kikuyu Division”. I have selected your institution as one of the participating schools. In the study it is only the students who will be asked to complete three questionnaires. The first questionnaire is on socio-demographic, which has been developed by me for this particular study. The next two questionnaires are internationally used instruments. One will measure the prevalence of bullying while the other will measure the general mental health experienced by the student after bullying. All the above questionnaires are self administered.

Apart from the highly confidential information from the student, there will be no physical procedures. However some information may be painful to the student but this study will provide a chance to the student to open up through the questionnaire. This overall result will help us to understand the prevalence of bullying in your institution and the psychological effects on the student and which could affect a healthy school learning environment. Students who have been highly traumatized can get an opportunity for help as my contact will be left so that any student who needs help can get in touch with me later.

Apart from the benefits to the students, the school and I, the researcher, there will be no other benefits or any financial incentives for taking part in this study. I will get all the necessary official approvals for this study to be done which I will make available to you before the study begins.

As the Head of the school, I regard you as the guardian of the students, I am therefore requesting for your permission to carry out the study which you can withdraw at any time during the course of data collection. I will also explain to the students the nature of the study and request them to complete the questionnaires. Attached please find the questionnaires that will be given to the students.

Yours Faithfully,

Anne W. Mwayo.

Msc. Clinical Psychology Student,

Department of Psychiatry,

University of Nairobi.

Tel 0733823896.

**Appendix 2:**

**Consent by Principal:**

I.....being Head of.....  
Secondary School and having been explained the nature of the study by Anne W.  
Mbwayo P.O. Box 63254-00619 Nairobi , Tel 0733823896, as detailed in a  
write-up, do here by give consent for the students in my school to participate in  
the study. I understand I can withdraw this consent any time before the data  
collection is over.

Name.....  
Signature.....School Stamp  
Date.....

Witnessed by.....  
Name .....  
Signature.....  
Date.....



### Appendix 3:

## **ASSENT EXPLANATION FOR PARTICIPANTS IN THE STUDY OF; BULLYING: PREVALENCE AND ITS ASSOCIATION WITH PSYCHOLOGICAL DISORDERS AMONG STUDENTS IN PUBLIC DISTRICT SCHOOLS IN KIKUYU DIVISION:**

My name is Anne W. Mbwayo from the department of psychiatry, University of Nairobi. I am carrying out research to find out the prevalence and psychological effects/consequences of bullying and I will also use the information for my Masters Degree dissertation in Clinical Psychology in the same University.

Although I got permission from the school principal to carry out the research, I would like to explain to you what I intend to do so that you can decide yourself whether you wish to participate or not.

I would like to request you to participate in the research to find out how widespread bullying is in your school and how bullying affects your psychological well being. If you agree to participate I will require you to read and respond appropriately to a list of questions below that ask about your personal details, bullying and how it affects you. This exercise should not take more than 30 minutes in total.

For purposes of clarity, we say that a student is being bullied when another student or several other students:

- 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 threaten him or her,

- 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 do other hurtful things like that.

These things may take place frequently, and it is difficult for the student being bullied to defend himself or herself. It is also bullying when a student is teased repeatedly in a mean and hurtful way.

It's not bullying when people of equal strength or power quarrel.

**Risk/Discomfort:**

The only risk from this study may be the uncomfortable feelings when we ask you questions on how you were bullied and how you felt. No test will be done on you such as blood tests or any other specimen.

**Benefits:**

If you still suffer from any psychological distress, you can contact me and I will arrange for help. You can still send me a message on this number 0733823896 or write a letter to me on this address,

Anne W. Mbwago,  
P.O. Box 63254-00619,  
Nairobi.

If you still wish you can ask the teacher or somebody else you trust to contact me.

The results of this study will be used to find out ways of preventing bullying in your school if it exists.

**Confidentiality:**

All the information that you write will be treated with confidentiality. To ensure this you do not write your name on any questionnaire. You will not be paid to take part in the study, it is your choice. If you choose to join the study then answer the following questions to the best of your ability. Once you've completed

fold the questionnaire and drop it in the provided box. If you do not want to complete the questionnaire still fold it and drop it in the provided box. I will respect your decision not to complete the questionnaire and will not be penalized in any way.

Your completion of the questionnaire will be taken as your assent to participate in the study.

Yours Sincerely,

Anne W. Mwayo

Masters of Science in Clinical Psychology student

Department of psychiatry,

University of Nairobi.

Tel: 0733823896.

**APPENDIX 4**

**THE SOCIO-DEMOGRAPHIC QUESTIONNAIRE**

1) Which form are you in? .....

2) Choose the category of your school.

Boarding

Day

3) Is your school?

a) Boys only

b) Girls only

c) Mixed

4) Date of Birth Day..... Month ..... Year .....

5) Gender Male

Female

6) How many siblings do you have?.....

7) What is your birth position? .....

8) Are you living with both parents?

9) If no, whom are you living with?

a) Mother

b) Father

c) Others (specify)

**APPENDIX 5:**

**BULLYING QUESTIONNAIRE:**

**SECTION A: THESE QUESTIONS REFER TO YOUR EXPERIENCE IN YOUR PRESENT SCHOOL.**

**(PLEASE TICK/WRITE THE MOST APPROPRIATE ANSWER THAT APPLIES TO YOU).**

1.1) Have you been called bad or nasty names?

- a) Yes                       b) No

1.2) If yes, How often in the past 6 months?

- a) Seldom (1-3 times)     b) Frequently (4 times or more)

1.3) If yes to (1.1) above where did it happen?

- a) Play grounds     b) Corridors     c) Way to/ from school   
d) Other areas (specify).....

1.4) From which class did the perpetrator(s) above belong?

- a) Own class     b) Parallel class     c) Higher class   
d) Lower class     e) Other school

1.5) Were they

- a) Boys     b) Girls     c) Both boys and girls

1.6) Have you called any other student(S) bad or nasty names in the past 6 months?

- a) Yes                       b) No

1.7) If yes, how often in the past 6 months?

- a) Seldom     b) Frequently     c) Very frequently

2.1) Have you had your belongings taken?

- a) Yes                       b) No

2.2) If yes, how often in the past 6 months?

- a) Seldom     b) Frequently     c) Very Frequently

2.3) If yes to (2.1) above where did it happen?

- a) Play ground     b) Corridors     c) Way to/from school   
d) Other areas (specify).....

2.4) From which class did the perpetrator(s) of the above belong?

- a) Own class     b) Parallel class     c) Higher class   
d) Lower class     e) Other school

2.5) Were they

- a) Boys     b) Girls     c) Both boys and Girls

2.6) Have you taken belongings from any other student(s) in the past 6 months?

- a) Yes     b) No

2.7) If yes, how often?

- a) Seldom     b) Frequently     c) Very frequently

3.1) Have you had lies told about you?

- a) Yes     b) No

3.2) If yes, how often in the past 6 months?

- a) Seldom     b) frequently     c) Very frequently

3.3) If yes, to (3.2) above where did it happen

- a) Play grounds     b) Corridors     c) Way to/from school   
d) Other areas (specify).....

3.4) From which class did the perpetrator(s) of the above belong?

- a) Own class     b) Parallel class     c) Higher class   
d) Lower class     e) Other schools

3.5) Were they

- a) Boys     b) Girls     c) Both boys and girls

3.6) Have you told lies about other students in the past 6 months?

- a) Yes     b) No

3.7) If yes, how often?

- (a) Seldom    (b) Frequently    (c) Very frequently



a) Boys  b) Girls  c) Both girls and boys

5.6) Have you threatened or blackmailed any student in the past 6 months?

a) Yes  b) No

5.7) If yes, how often

a) Seldom  b) Frequently  c) Very frequently

6.1) Have you been beaten up or hit?

a) Yes  b) No

6.2) If yes, how often in the past 6 months?

a) Seldom  b) Frequently  c) Very Frequently

6.3) If yes to (6.2) above, where did it happen?

a) Play ground  b) Corridors  c) Way to/from school

d) Other areas (specify).....

6.4) From which class did it the perpetrator(s) belong?

a) Own class  b) Parallel class  c) Higher class

d) lower class  e) other schools

6.5) Were they

a) Boys  b) Girls  c) Both boys and girls

6.6) Have you hit or beaten up another students in the past 6 months?

a) Yes  b) No

6.7) If yes, how often?

a) Seldom  b) Frequently  c) Very frequently



**SECTION B: - THESE QUESTIONS REFER TO YOUR EXPERIENCE IN YOUR PRESENT SCHOOL**

1.1) Have other students refused to play with you?

- a) Yes                       b) No

1.2) If yes, give an example and descriptive of how it

happened.....  
.....  
.....

1.3) How frequently does it happen?

- a) Seldom       b) Frequently       c) Very frequently

1.4) How frequently have you refused to play with other students?

- a) Never       b) Seldom       c) Frequently   
d) Very frequently

2.1) Have other students said they will not be your friend anymore

- a) Yes                       b) No

2.2) If yes, give examples and description of how it

happened.....  
.....  
.....

2.3) How frequently does it happen?

- a) Never       b) Seldom       c) Frequently   
d) Very frequently

2.4) How frequently have you said you would not be friends with other students?

- a) Never       b) Seldom       c) Frequently   
d) Very frequently

3.1) Have other students told nasty stories that were not true about you?

a) Yes

b) No

3.2) If yes, give examples and descriptive of how it happened

.....  
.....  
.....

3.3) How frequently does it happen?

a) Never

b) Seldom

c) Frequently

d) Very frequently

3.4) How frequently do you tell nasty stories about other students that are not true?

a) Never

b) Seldom

c) Frequently

d) Very frequently

4.1) Do other students deliberately spoil your game?

a) Yes

b) No

4.2) If yes, give examples and how it happened

.....  
.....  
.....

4.3) How frequently does it happen?

a) Never

b) Seldom

c) Frequently

d) Very frequently

4.4) How frequently do you spoil other students games

a) Never

b) Seldom

c) Frequently

d) Very frequently

## APPENDIX 6

### General Health Questionnaire (GHQ)

We want to know how your health has been in general over the last few weeks. Please read the questions below and each of the four possible answers. **CIRCLE** the response that best applies to you.

Thank you for answering all the questions.

Have you recently:

1) Been able to concentrate on what you're doing?

Better than usual	same as usual	less than usual	much less than usual
(0)	(1)	(2)	(3)

2) Lost much sleep over worry?

Not at all	no more than usual	rather more than usual	much more than usual
(0)	(1)	(2)	(3)

3) Felt that you are playing a useful part in things?

More so than usual	same as usual	less so than usual	much less than usual
(0)	(1)	(2)	(3)

4) Felt capable of making decisions about things?

More so than usual	same as usual	less than usual	much less than usual
(0)	(1)	(2)	(3)

5) Felt constantly under strain?

Not at all	no more than usual	rather more than usual	much more than usual
(0)	(1)	(2)	(3)





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**MINISTRY OF SCIENCE & TECHNOLOGY**

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P.O. Box 9583-00200  
NAIROBI

When Replying please quote

Ref. MOST 13/001/ 37C 567/2

28<sup>th</sup> August 2007

Mbwayo Anne Wanjiru  
University of Nairobi  
P.O. Box 30197  
NAIROBI

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on, *'Bullying: Prevalence and its Association with Psychological Disorders among Students in Public District Secondary Schools in Kikuyu Division of Kiambu District,*

I am pleased to inform you that you have been authorized to carry out research in Kiambu District for a period ending 30<sup>th</sup> October 2007.

You are advised to report to the District Commissioner and the District Education Officer Kiambu District before embarking on your research project.

On completion of your research, you are expected to submit two copies of your research report to this office.

**M. GATOBU**  
**FOR: PERMANENT SECRETARY**

Copy to:

The District Commissioner  
**Kiambu District**

The District Education Officer  
**Kiambu District**