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SCHOOL STRESSORS, PERSONALITY AND  
REPERCUSSIONS FOR MENTAL HEALTH IN CHILDREN.

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VNIVERSITAT  
ID VALÈNCIA

**School Stressors, Personality and Repercussions for  
Mental Health in Children**

DOCTORAL THESIS

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Valencia, 2011

DEDICATED:

To my husband Luis  
My daughters Sofía, Nahia and Olivia  
My parents and brother

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## CHAPTER ONE: INTRODUCTION

### 1.1. Terminology, statistics and differences between groups involved in bullying

#### 1.1.1. Operational definitions and terminology related to school stressors and types of bullying

Bullying and aggression are becoming more commonplace throughout schools. The literature has evolved in an attempt to cover the demand for knowledge provoked by, among other things, severe cases of bullying that have resulted in grave incidents or even the suicide of the children that were victims of aggression. What began as the study of bullies and their behavior and characteristics has grown to include characteristics of the victim and the emotional and behavioral consequences that bullying brings.

This research is taking place on an international level and in transnational studies, and, due to this, specifying terms and creating operational definitions that are suitable and complementary is important. For the purposes of this paper, the following terms will be used: the target of the abuse will be called the victim, the person or people who inflict abuse will be called aggressors or bullies, depending on the nature of the abuse, and peers will be considered fellow students of a similar age. First, the concepts of peer aggression and bullying must be clearly defined. Initially, peer victimization was conceived as physical or verbal aggression inflicted on a victim. Now, however, the definition has broadened to include indirect aggression (Björkqvist, Lagerspetz & Kaukianen, 1992). Direct physical aggression is considered to be actions such as punching, kicking, pushing, pulling hair, or any other action that is done with the intent to cause physical pain. Direct verbal aggression is name-calling, insults, insulting jokes and other things said to cause embarrassment, emotional pain or humiliation. The use

of others and the social environment of the school characterize the third type, indirect aggression. This type of victimization includes malicious gossip, spreading rumors and social exclusion. These actions serve to interfere in the relationships the victim has with their peers and can lead to their isolation. This type of behavior has also been called relational or social aggression (Smith, Cowie, Olafsson & Liefhoghe, 2002).

Hawker and Boulton (2000) propose five categories of interpersonal aggression among peers, although they are fundamentally the same as those mentioned above. They are: indirect, relational, physical, verbal and generic aggression. Indirect and relational aggression are similar but differ in that “indirect aggression is defined as aggression which is enacted through a third party or so that the aggressor cannot be identified by the victim. Relational aggression is defined as behavior that causes, or threatens to cause, damage to peer relationships, and particularly to friendship and acceptance.” (Hawker and Boulton, 2000). The main difference between the two is the desire of the aggressor to remain unidentified or not. However, due to the similarity in the motivations and the effects of these aggressions they are typically grouped together. In their article, verbal and physical aggressions are the same as those described above. A different category described by the authors is generic victimization, which includes any nonspecific descriptions or other forms of victimization.

It is very important here to make the distinction between aggression and bullying. To be considered bullying it should fulfill the following conditions (Olweus, 1999):

“(1) It is aggressive behavior or intentional ‘harmdoing’ (2) which is carried out repeatedly and over time (3) in an interpersonal relationship characterized by an imbalance of power. One might add that bullying behavior often occurs without apparent provocation.”

This imbalance of power between the aggressor and the victim should be, at least, perceived by the victim. The imbalance could be physical, in that the aggressor is larger or stronger, or social, the aggressor having more friends, more influence over peers or teachers or that they are considered by their peers to be more intelligent or in some way better than the victim. The difference could also lie in the number of peers that support

the actions of the aggressor. Sometimes bullies act in groups, making it more difficult for the victim to defend himself, and can also increase their feelings of isolation.

There should also exist some degree of repetition of the activities, that is, they should occur on a fairly regular basis and not be isolated incidents. The intent of the aggressor is also important. If the aggressor intends to hurt or humiliate the victim, it fulfills the first criteria of bullying. If these three conditions are not met, the behavior should be considered aggression and not bullying. Some examples of events that should not be considered bullying include the occasional fight between equally matched peers, as there is no clear imbalance of power and the fights are not frequent between the same peers. Name-calling and teasing in the spirit of friendship are considered normal childhood behavior and, as long as it is not meant to cause emotional pain and occurs in isolated instances, are not considered bullying. Gossiping without the intent to hurt the person's social standing or well-being is also not considered to be aggressive behavior. Accidental physical harm is considered an isolated incident without malice and horseplay is also contemplated as normal childhood behavior. Some of these actions may hurt the child unintentionally, physically or emotionally, but this criterion is often difficult to determine. Whitney and Smith (1993) specify the types of acts that should and shouldn't be considered bullying.

Bullying occurs:

“When another child or young person, or a group of young people, say nasty and unpleasant things to him or her. It is also bullying when a young person is hit, kicked or threatened, locked inside a room, sent nasty notes, when no-one ever talks to them and things like that. These things can happen frequently and it is difficult for the person being bullied to defend him or herself. It is also bullying when a young person is teased repeatedly in a nasty way. But it is not bullying when two young people of about the same strength have an odd fight or quarrel.”

This definition of bullying encompasses and gives examples of the three different types of aggression and bullying most commonly accepted: physical, verbal and indirect.

Ortega and Mora-Merchán (2000) give us an interesting definition of interpersonal violence, similar to Olweus' definition of bullying but without addressing the specific

characteristics inherent to bullying. It is considered by them to be a phenomenon by which a person or group of people see themselves as insulted, physically attacked, socially excluded or isolated, harassed, threatened or frightened by others in their social context. As a result, the victim reaches a state of psychological, physical or social helplessness which provokes personal insecurity that affects their self-esteem and decreases their initiative.

It is also very important to take into account several additional factors when conceptualizing the problem of aggression in schools. Ortega and Mora-Merchán (2000) found that the following aspects are fundamental: the nature of the aggression, its intensity, duration, if it was intended or not, the number of people involved, and the motivation behind the abuse. Some types of aggression can be more psychologically damaging than others, depending upon the age, sex, social status and individual characteristics of the victim. The intensity of an abusive situation, for example, the difference between a push and a beating, is also of great importance when studying the phenomenon. The duration of the abuse, if it is an isolated act or repeated relatively frequently over a certain period of time, one of the fundamental aspects of the definition of bullying, can imply different psychological reactions in the children. The motivation or intent behind the acts, often unclear from an objective point of view, is very important from the subjective perspective of the victim; the child is more likely to be upset if he or she feels that harm was intended, even if it really wasn't. The number of students involved can have an additional negative effect. Not only is the person hurt by the aggression but if there are several students involved, it could lead to feelings of social isolation and loneliness as well.

These are some of the more frequently accepted definitions of bullying and aggression in the literature. However, with the prevalence of international studies increasing, sometimes the terms used by researchers as well as what they consider to be aggression or bullying behavior can create difficulties. Smith et al. (2002) tried to alleviate this problem to some degree by asking a subject pool of 14 year-olds, through cartoons, to relate common terms with forms of aggression (physical aggression, physical bullying, direct and indirect verbal bullying and social exclusion) in fourteen countries. In England, the terms bullying, tormenting and picking on were associated with all but physical aggression. Harassment and intimidation were linked with physical

and verbal bullying, and teasing was most connected to verbal bullying and social exclusion. The large variety of terms that can be used and their meaning for potential subjects can be a source of confusion and discrepancy in studies. As a result, it is up to the researcher to clearly operationally define the terms to be used and give examples of behavior that clearly coincide with those terms.

### 1.1.2. Roles of children involved in aggression

There are usually several different groups of children involved in aggressive behavior, and they often fit a specific profile. A study done in Spain by Ortega (1995), and later described in her book, names and defines four different profiles or roles that children could fill in these situations:

Removed (22.4%). These are students that never participate in situations of intimidation or victimization.

Pure victims (10.1%). Students that only have experiences as victims and are never seen as aggressors or intimidators of their peers.

Pure intimidators (19.4%) These students only experience situations of interpersonal violence between peers as aggressors or intimidators of others, and are never perceived as victims.

Ambivalent (43.8%). These are students not clearly classified in any of the previous categories. They have had experiences as both aggressors and victims.

In most studies these profiles are limited to three, the three groups of children that are directly linked to aggression. These groups are generally termed: bullies, victims and bully/victims (children who are both victims of bullies and victimize other peers). However, some authors (Stephenson and Smith, 1987; Ortega and Mora-Merchán, 2000) have gone so far as to distinguish between types of aggressors and victims. They mention the following five categories: aggressors, anxious aggressors, victims, provocative victims and bully/victims. Aggressors are usually strong, assertive, impulsive, easily provoked, and they enjoy the aggression. They can also be hyperactive, disruptive and insensitive. Anxious aggressors normally have academic problems, are insecure and are quite unpopular. Victims are generally weak, shy, have low self-esteem

and few friends. Provocative victims are active, strong, and easily provoked, similar to the characteristics bullies possess. Bully/victims are strong, assertive, and the most socially unpopular of all five groups.

Salmivalli, Karhunen and Lagerspetz (1996) group the children into six categories:

Ringleader bullies: those bullies that take the initiative in the abuse.

Follower bullies: they join in the bullying initiated by the ringleader.

Reinforcers: they encourage the bully or laugh at the victim.

Defenders: the peers that try to help the victim.

Bystanders: peers that remain passive during the aggression.

Victims: they are the children that suffer aggression.

Sometimes, what sets victims apart from their non-victimized peers is a physical characteristic, such as: obesity, skin color or race, a distinguishing mark or feature, a handicap or physical or learning disability, or they could be socially awkward or generally clumsy. They usually see themselves as less competent than their peers, and are introverted, sensitive, cautious and calm (Ortega and Mora-Merchán, 2000) There is a distinction that has been made between two types of victims, passive and provocative. Passive victims are generally non-aggressive, insecure, submissive, anxious, with few resources (physical or attitudinal) to confront their aggressors, and they do not bother their peers. According to Salmivalli et al. (1996) “a passive victim is characterized by an anxious personality pattern combined (at least in the case of boys) with physical weakness. A provocative victim is characterized by a combination of both anxious and aggressive behavior patterns.” Provocative victims normally have a strong temperament, are emotionally unstable and highly conflictive, they usually defend themselves when attacked, pick fights and are generally the least popular with their peers.

### 1.1.3. Statistics and frequencies

Many studies have been done to examine the nature and frequency of bullying, aggression, and its subtypes. The percentage of students that can be considered bullies, victims or bully/victims varies from study to study and across borders. Olweus (1993) found, in his Norwegian study of children between the ages of 8 and 16, that 9% were

considered aggressors, 7% victims and 1.6% bully/victims. Additionally, his findings suggest that the number of victims decreases with age. Craig (1998) found slightly different results in her study of Canadian schoolchildren. In younger children (about 10 years old) approximately 3.3% were found to be bullies, 6.1% victims and 4.7% victim/bullies. In 13 to 14 year-olds the number of bullies increased to 4.3%, victims decreased to 4.2% and bully/victims (4.8%) remained the same. In an Italian study (Fonzi, Genta, Menesini, Bachuini, Boninos and Costabile, 1999) the results were quite different, reporting that 41.6% of primary school students and 26.4% of high school students were frequently abused by their peers. The numbers of students abused at least once a week were 17.5% and 9.5% respectively. This large discrepancy could perhaps be explained by cultural factors or more likely by differing definitions of terms or the events that qualify as abuse. Salmivalli et. al. (1996) also made the distinction between those children frequently or “extremely” victimized (10%) and those bullied “sometimes” (20%), but did not distinguish between the types of bullying.

Seals and Young (2003) performed a study with children between the ages of 12 and 17 in which students reported the frequency with which they suffered each type of bullying. Physical aggression was reported as occurring “sometimes” in 21.5% of the students and “often” in 10.8%. Threats were reported by 16.2% of the children as happening to them sometimes and 6.6%, often. Name-calling was more frequent, at 36.7% and 13.5%, as well as mean teasing (34.7 % and 9.0%). Social exclusion was a problem for 24.8% of the children sometimes and 7.3% often. These results show the types of aggression that are more common among this age group: name-calling, mean teasing and exclusion. We don’t know the extent of overlap within the types of aggression, that is, if the same students are being abused in several different ways.

These statistics vary widely and this discrepancy could be due to the source of the information. A 1998 Finnish study (Kumpulainen, Räsänen, Hettonen, Almqvist, Kresanov, Linna, Moilanen, Piha, Puurak and Tamminen, 1998) found that there was a substantial difference in reporting by parents, teachers and students. Parents reported that 21.6% of children were occasionally bullied while 1.2% were certainly (often) bullied. Teachers reported 10.4% bullied occasionally and 1.4% often. The students’ results were 29.2% and 4.7% respectively. This shows that students are either underreporting the bullying behavior to their parents or teachers, the concept of



bullying is different to the three groups, or the severity of these incidents is greater from a subjective perspective. Thus, varying methods of data collection used could influence the frequency statistics.

Taking into account all of the data in this broad study, it was found that 8.1% of children were considered only bullies, 7.6% bully/victims and 11.3% victims. Regarding the sex of the child, 13.3% of boys were bullies, 12.7% were bully/victims and 12.8% were victims. As for girls, 2.8% were considered bullies, 2.4% bully/victims and 9.7% victims. These results show that boys are more involved in bullying activity in general, although it must be noted that oftentimes indirect bullying is not perceived as easily as verbal or physical, and, as this type of bullying is more common among girls, the statistics on girls may be underreported. The study also shows that there was a total of 27% of children that were directly involved in bullying, either by bullying, being victimized, or both. About 40% of the victims were also bullies, this phenomenon being much more considerable in boys (50%) than in girls (20%).

Studies reporting the incidence of aggression and bullying in Spain are relatively few. Many of the publications are of a theoretical nature as opposed to empirical, offering little information as to the prevalence of this problem in Spain. Apart from the study cited above by Ortega (1995), one of the most notable studies was carried out by the “Defensor del Pueblo” in 2000. They found, that among Spanish children and adolescents, insults and name calling were the most common forms of aggression (with over 30% reporting these behaviors) This was followed by 14% that reported their peers ignoring them, and just over 4% reporting being hit. Aggression was reported with the most frequency in adolescents from 12 to 14 years old, decreasing with age after that. Boys were more aggressive verbally and physically, while girls used more indirect aggression and psychological intimidation.

Research carried out by del Barrio, Martín, Montero, Gutiérrez and Fernández (2003) using a sample of three thousand secondary school students studied different forms of aggression, finding that: 36.9% of the sample reported verbal aggression, 12.8% social exclusion, indirect physical aggression (including stealing, breaking or hiding personal items) was reported by 11%, 9.7% cited threats and 4.8% manifested direct physical

aggression. These results reflect aggression, not bullying, and the frequency with which each subject suffers the aggression is not represented

When considering bullying in Spain, only one study was found to illustrate the prevalence of the problem in this country. A report published by the “Centro Reina Sofía” (2005) found that 14.5% of the participants reported being the victim of school aggression. Of these, 17.2% are victims of frequent bullying, which is 2.5% of the entire sample. The vast majority of the victims (95.7%) were of Spanish nationality. The problem of bullying in Spain, its prevalence and impact, has been studied very little, particularly when compared to Scandinavian countries and the United States. As a result, it is difficult to compare aggression and bullying in Spanish schools with those of other countries and to reliably quantify the situation here.

#### 1.1.4. Differences between boys and girls

Studies of the differences between boys and girls began to emerge in the 1980’s and since then it has been one of the most researched areas in school aggression. The research has clearly shown that the differences between the sexes are of a qualitative, as opposed to quantitative, nature. That is, the type of aggression used by each sex differs significantly, much more than the number of victims. There were also differences noted in the sex of the aggressor. While boys were almost always victimized by boys, girls were victimized by both boys and other girls (Ortega and Mora-Merchán, 2000). A study by Seals and Young (2003) found that when the bully was male, 66.7% of the victims were also male. However, when the bully was female, only 12.2% of the victims were male. Boys are more often bullies (66.7%) than girls (33.3%) and less frequently victims (43.6%). Girls tend to bully more in groups while individual bullying was used much more frequently in males (in 83.3% of the cases).

There are some differences between boys and girls in many different aspects of bullying. Generally speaking, boys at every age report being victims more often of frequent bullying. In Borg (1999), boy victims reported being bullied more than once a week by their classmates, showing a tendency towards more continuous and severe aggression than girls. Boys also tend to have more problems not only with peers but

with teachers as well. The role of teachers is very important in the interactions between students and the consequences that arise as a result of these interactions. If teachers ignore the problem, are unaware of the situation or minimize it, then the problem could become worse and more frequent. If a teacher is an active participant in the aggression then it could exacerbate the situation, supporting the abuse and mining the social position of the victim. The combination of different sources of aggression as well as a possible feeling of helplessness and lack of protection could lead to greater psychological effects in the victimized children.

The types of aggression used by girls and boys also differ greatly. In a study of thirteen and fourteen year-olds, these differences were apparent (Seals and Young, 2003). Boys and girls reported physical aggression and mean teasing similarly (49% and 51%; 53.7% and 46.3%, respectively). The main differences were found in the use of threats of harm (65% boys), name-calling (55.7% girls) and social exclusion (57.6% girls). These results are similar to those found in other studies, such as Borg (1999) where girls were more frequently involved in lying about classmates whereas boys were involved in more name calling and physical aggression. In a study done by Craig (1998), she found that in primary school both girls and boys used physical aggression equally but when in junior high, boys started using it with much more frequency while in girls it stayed the same. The use of verbal aggression was higher in girls than in boys in primary school. However, while it remained the same for girls in junior high, in boys it rose dramatically. Indirect aggression was used more by girls in primary school but in junior high boys and girls used it about the same. It is important to note here that more girls than boys claimed to be victims of indirect aggression in both age groups. The results of Rivers and Smith (1994) are representative of the general consensus in the literature regarding the differences between boys and girls. They found that: direct physical aggression was more common among boys, that there were no significant differences between the two in direct verbal aggression, and that girls reported indirect aggression with more frequency (Ortega and Mora-Merchán, 2000; Crick and Grotpeter, 1995; Björkqvist et. al., 1992; Owens, Shute and Slee, 2000).

These differences, particularly in the more widespread use of indirect aggression by girls, could be explained by the differences in social interaction and the priorities inherent to the two sexes. One of the possible reasons for this discrepancy lies in the

different social goals that boys and girls have and what is perceived as the best way to undermine these goals. Girls generally place more importance on relational issues and their interpersonal connections with their peers. Because of this, actions that negatively affect their social connections (such as lies, rumors and social exclusion) are more damaging to the victim than other kinds of aggression (Crick, 1996; Owens et. al., 2000). In contrast, boys generally have larger and more scattered social circles with less intense relationships, which leaves them less vulnerable to these types of bullying behavior (Rivers and Smith, 1994). In this sense, the differing friendship patterns of girls and boys are very important (Björqvist et al., 1992), close bonds facilitating indirect aggression as well as making sure that, in girls, they are affected where it will hurt them the most. However, boys place more importance on dominance and physical status related goals, which make them particularly vulnerable to physical aggression and threats that undermine their ability to demonstrate their dominance.

A study of teenage girls carried out in Australia by Owens et. al. (2000) used interviews and focus groups to study the effects of and explanations for indirect aggression. They found that what lead girls to commit indirect aggression are friendship and group processes such as the desire for acceptance, a need for intimacy and closeness as well as a desire for inclusion combined with the desire to alleviate boredom or create excitement. This results in behaviors of talking about others, social exclusion, as well as direct and indirect harassment and aggression. The victims of this aggression are generally provocative or are particularly vulnerable if they are new, shy, or have few friends. The victims of this abuse often feel confusion, denial, a desire to escape, pain, fear and low self-esteem. We will talk about the reactions towards abuse and the effects it causes in victims further on in the introduction.

Campbell, Muncer and Coyle (1992) present a social representation theory to explain the behavior differences between genders parting from Moscovici's definition of social representation:

“...Systems of values, ideas and practices with a two-fold function; first, to establish an order which will enable individuals to orientate themselves in their material and social world and master it; secondly, to enable communication to take place among members of a community by providing them with a code for social exchange and a

code for naming and classifying unambiguously the various aspects of their world and their individual group history.” (Moscovici, 1973).

The authors found that there is a significant relationship between gender and the social representation of aggression held by the person. Generally speaking, women perceive their own aggression as expressive while men’s is seen as instrumental. Women use aggression as a tool to display their feelings towards others and when they are provoked. Men use it as a tool to achieve their social goals. This finding is supported by several observations made in the course of the study. One is that men hold more positive attitudes towards aggression than women do and are more likely to talk about it. These differences are shown to be greater in public settings (such as schools) than private and greater in physical aggression as opposed to verbal or indirect aggression. Women experience more anxiety and guilt about aggression and perceive their own acts as more harmful. Additionally, men are more likely to act out aggressively when they are not angered than women are. From this we can conclude that men are more likely to be aggressive in a more open and direct way, as it is more accepted by their peers. In women this aggression must be subtler, including using third parties, such as with indirect aggression. As aggression is less acceptable within their social groups, their acting out must be less perceptible and preferably not directly attributable to them.

The differences between sexes can also be partially explained by the types of reactions that girls and boys have towards aggression. A study by Knight, Guthrie, Page and Fabes (2002) points out that boys are either more emotionally aroused with relatively less provocation than girls or that they have a more difficult time regulating this arousal. In either case (or in combination of both) boys tend to react more aggressively which leads to a stronger response, normally in an escalation of the situation. This type of behavior, often referred to as provocative victimization, usually reinforces the bully and can lead to further situations of this type. Girls, on the other hand, either have less emotional arousal or have better control over their emotions, which can often diffuse the situation early on, helping to prevent further episodes and a cycle of action-reaction. Additionally, they are found to have more motivation to improve the situation, leading to active engagement of the problem (Champion and Clay, 2007). By directly addressing the problem they are more likely to diffuse the

situation in the short-term and avoid further victimization in the future. This is something that will be discussed further in the section on coping.

#### 1.1.5. Differences between age groups

One of the main areas of research involving bullying has centered on the age of the students. Many studies have looked at the differences between younger and older students and have attempted to explain these differences. There is a widespread consensus in the literature that peer aggression and bullying decrease with age in both girls and boys and in all of its forms (Rivers and Smith, 1994; Björqvist et al., 1992; Ortega, 1995; Smith and Levan, 1995). Bullying often begins early on in childhood. As early as age 5 or 6, the bully/victim patterns can become established (Kochenderfer and Ladd, 1996). These patterns consist of social interactions among peers that are affected by adverse behavior. Continued aggression or harassment will most likely provoke a reaction in the victim that will lead them to be considered easy targets or deserving of that treatment. These actions and reactions condition the relationships that the victim has with his or her peers and can also affect the way the victim relates to people on a whole, as well as global characteristics such as trust, communication and general social skills. Beginning at such an early age, there is a greater chance that these problems, on a personal and social level, can become more embedded in the person and their peer structure. In turn, these characteristics can attract the unwanted attention of bullies in the future and further complicate the child's personal and social growth.

Another finding (Smith and Levan, 1995) states that there is a steady decrease in the incidence of being bullied from the ages of 7 or 8 to 16. Specifically, the prevalence among all students is quite high in middle school. 27% of children reported being victims of aggression "sometimes" while 10% reported frequencies "once a week or more." In high school, it is dramatically reduced to 10% reporting "sometimes" and 4% reporting being victimized "once a week or more" (Carlisle and Rofes, 2007).

Researchers (Smith and Levan, 1995; Ortega and Mora-Merchán, 2000) give several possible explanations for this trend. One is that when children are younger they have more children that are older than them in school, which could mean more potential

aggressors. Another is that younger children have not yet come to understand that it is wrong to bully others. They see actions of others and the attention that they get and repeat these actions, without being conscious of the harm that they are inflicting. A third reason is that younger children have not acquired the assertiveness and other social skills that are needed to deal with bullying and to discourage future acts of aggression. The last is that younger children have a different definition of what bullying is, making its measurement in this age group and comparison with others difficult. They found that some younger children define bullying as “something someone does that is nasty and hurts me” without taking into consideration the elements of repetition, intent or imbalance of power. All of these hypotheses could explain part of the difference found with age, although none of them are able to fully explain it individually.

Another possibility is that there are fewer victims at older ages because these are more selectively targeted by their peers (Perry, Kusel and Perry, 1988). These victims suffer more aggression and possibly by a larger number of peers. This finding is supported by Kaltiala-Heino, Rimpelä, Rantanen, and Rimpelä (2000) who found that the incidence of bullying remains the same as children get older but the number of victims drops. There is one study that differs with this idea, finding that some types of bullying among girls actually increase with age from middle to high school. Girls in high school (n=58) reported more intimidation (25.4% and 34.5%), ridicule (51.5% and 58.2%) and sexual harassment (23.1% and 46.3%) than girls in middle school (n=177). The authors (Gruber and Fineran, 2007) say that this discrepancy with the general consensus could be due to the small sample size. It could also be due to the nature of the aggression. Sexual and generalized harassment are types of abuse that are more thought out and less reflexive than hitting or name calling, making them more difficult to be carried out by younger children. Additionally, the sexual component of the aggression is something that is generally considered and exploited more by older children.

The nature of bullying changes with age differently for boys and girls. In Björqvist et al. (1992) girls and boys were found to have similar friendship patterns at age 8, and indirect aggression was not fully developed by this age, probably due to the complexity that its use entails. However, by ages 11 to 15 the gender differences in social structures were more apparent, and the use of indirect aggression was more frequent. This can be

explained by the role that closer friendships play in the success of indirect aggression. The gender differences noted at age 11 regarding indirect aggression can also be partially explained by the faster development of verbal maturity in females, their superior verbal skills at this age making it easier for them to use this complex type of aggression. They found that the highest incidence of all aggression is at age 11. They theorized that after this age, the children begin to become interested in other matters, such as dating or sports, and focus less on social structure or hierarchy.

Most of the victimization only lasts a few days, but one study (Slee, 1995) found that 17.1% of bully episodes last six months or longer, generally leading to more complicated psychological and social effects. Stable victimization can exacerbate adjustment problems in school, impacting the likelihood of future problems with peers and affecting the way that they deal with potential conflicts. Victimization can cause difficulties in socialization and loneliness that may affect future relationships with peers. Earlier victimization could lead to more long-term psychological effects and they may be more likely to suffer victimization at a later age (Kochenderfer and Ladd, 1996). The effects of aggression, discussed above in its many forms, vary greatly depending on the type of abuse and its frequency and severity, as well as the reactions and social network of the victim. These effects are often manifested in the behavior of the victim as well as psychological symptomatology. There are often short-term consequences to this activity as well as long-term psychological and social difficulties. These issues will be discussed in Section 2.

#### 1.1.6. The role of immigrant status

There has been a sharp increase in immigration over the last several years. This increase has changed the demographics of societies and schools. As a result of this situation, it is interesting to study if the presence of immigrants modifies the dynamic of the classroom and interpersonal relationships. In the scope of this research, it is important to take into consideration the role that immigration may or may not have in bully-victim dynamics, as well as any differences that may exist between native and immigrant groups in their psychological reactions to victimization situations. Two studies carried out recently in Austria focus on the role that immigration has in the



classroom situation, interpersonal relationships, as well as the differences between immigrant groups. The first study (Strohmeier, Spiel and Gradinger, 2008) used peer nomination to identify people that had been victimized at least once. Native Austrians were nominated the most (32.8%), while 20.5% of immigrants from the former Yugoslavia, 14.7% of Turkish/Kurdish immigrants, and 23.2% of the multicultural group were considered victims. Austrians were also considered to be bullies more often. These authors recognize that there could be in-group bias based on sample size. There was a much larger group of Native Austrians and the groups were found to nominate victims more frequently in their own group.

A second Austrian study (Strohmeier and Spiel, 2009) studied the same ethnic groups but with a different sample. Here, the authors studied the prevalence of more frequent bullying, as well as the levels of integration and acceptance of each of the groups. Among native Austrians, 9% were found to be victims and 12% bullies. These percentages are much lower among immigrants. From 1.6% to 8.3% were considered victims (1.6% of the group from the former Yugoslavia, 5.1% of the Turkish and 8.3% of the others) and from 2.8% to 7.2% bullies (2.8% of the other group, 3.8% of the Turkish and 7.2% of the former Yugoslav group). The authors noted that the Turkish group was less integrated into the society than the group from the former Yugoslavia. The Turkish students were also less accepted by their peers. Generally speaking, all groups tended to have more friendships with people from their own countries of origin. However, the group from the former Yugoslavia had friends from their group as well as native Austrians, at approximately the same level. There was also a difference in their performance in German language class, with the Austrian natives and Yugoslavs receiving higher grades than the Turkish or the other group. From this article we can deduce that Turkish students have more difficulty integrating with their peers, perhaps due to problems with the language and cultural differences. However, these difficulties do not seem to influence the levels of victimization, possibly due to the fact that there does not seem to be as much interaction, or at least friendship, with the other groups.

A third study was recently carried out in Italy (Vieno, Santinello, Lenzi, Baldassari and Mirandola, 2009) and explored the differences between native Italians and immigrants using various quality of life variables. They also carried out regression analyses to further examine the relationships between variables. They found, unlike the

results published in the Austrian studies, that immigrants were victims of bullying significantly more than native Italians ( $F=8.45$ ,  $p<.001$ ). This could be due, in part, to the nature of the samples studied here. In the Italian study 7.1% of the sample were immigrants, while in the Austrian studies immigrants comprised 43% and 62% of the samples. It is possible that the immigrants who participated in Italy, clearly in the minority, were victimized more because they were fewer or they had less social support from their immigrant peers.

The authors also found that immigrants had significantly more health problems and psychosomatic symptoms. They were less happy, had fewer friends and less support from friends and, overall, were less satisfied with their lives. Then they studied the effects of socio-economic status, lack of social integration, discrimination and victimization and found that these variables account for the differences between groups in health symptoms and self-reported health. Additionally, victimization as well as immigration status led to higher rates of psychosomatic symptoms and lower life satisfaction and happiness. The number of friends and friend support were linked to higher levels of life satisfaction and happiness. This demonstrates that perhaps the number of friendships and the quality of these is a determining factor and could explain the difference between this study and those from Austria, where there was a larger number of immigrants and, consequently, more social support, given that most of their friendships are with students of their same ethnic background.

## 1.2. Effects of aggression

### 1.2.1. Reactions and behavior of victims

#### 1.2.1.1. Victim reactions

There are three types of victim responses described in the literature (Salmivalli et al., 1996):

Counter-aggression - when the victim speaks up, fights back, looks to others for help or in some other way confronts the bully.

Helplessness - when the victim freezes, flees, begins to cry, doesn't go to school or threatens to or does tell an adult about the problem.

Nonchalance - when the victim remains calm, doesn't take the bullying too seriously and acts as if it doesn't bother them.

They found, in their study of 12 to 13 year old Finnish students, that the most typical reaction to aggression was nonchalance, for both girls and boys. Boys showed significantly more counter-aggression while girls showed more helplessness. In their regression analysis they found that the best predictor of perceived provocativeness by the victim was helplessness for girls and for boys it was counter-aggression.

The age and social situation of the child also influences their reactions. In their study of 5 to 6 year-olds, Kochenderfer and Ladd (1997) found that there is a higher rate of children fighting back, most likely due to difficulty in controlling their emotions and actions. This study also found that boys fight back more than girls and that girls tend to walk away from the situation more often.

#### 1.2.1.2. Behavioral effects

Being a victim of aggressive behavior inevitably causes changes in the behavior of these children, and, as victimization is highly stable, that is, the same children are generally victimized over a period of time, it is important to determine what these behaviors are and if they perpetuate the abuse. Hodges and Perry (1999) discussed some behaviors which may serve to "provoke or reinforce" abuse against them. These can be internalizing behaviors, such as crying, showing anxiety, being socially withdrawn or submissive to the aggressors, which tend to reinforce the abuse, or externalizing behaviors, such as being disruptive, ineffectually aggressive, argumentative or dishonest, which can serve to provoke the aggressor or "justify" the abuse. Other factors which may contribute to their continued victimization are a lack of friends and peer rejection that leave them without the social support needed to effectively combat the abuse and can serve as a further justification of the aggressor's actions. This is, in part, due to

problems that victims have with interpersonal relationships. They found that internalizing behaviors generally have a greater impact on increasing victimization than externalizing behaviors. The importance of friendships is emphasized by Kochenderfer and Ladd (1997), who found that with boys, the presence of a friend helps decrease victimization while fighting back prolongs the victim status.

Salmivalli, Lappalainen and Lagerspetz (1998) found that in girls the most important factor in whether or not a person is victimized is their social network, while in boys it is the behavior of their friends, which could be standing up for the victim, ignoring the problem or even contributing to the victimization. This finding is supported by Hodges, Malone and Perry (1997) who concluded that internalizing and externalizing behavioral problems and physical weakness can make a person an easy target for bullying. This vulnerability is even greater when a child has few friends, has friends that are incapable of defending them, or is generally not well liked by their peers. Victimization, in turn, causes more loneliness, which can further isolate the child (Kochenderfer and Ladd, 1996) leading to even more problems. The authors also indicate that victimization precedes adjustment difficulties and not the inverse. Their victim status results in them not liking school and having difficulties in school and among their peers. Their main social support comes from friends, girls talking more about their problems than boys, and lacking this support can be harmful (Del Barrio, et.al, 2003). Pellegrini, Bartini and Brooks (1999) also support this conclusion, reporting that having friends and, especially, being liked by peers may inhibit victimization.

One of the problems that surfaces in many victims of school aggression is oppositional conduct. Their adverse experiences can lead them to act out in class, with their peers, and at home with their families. They may have difficulty paying attention, following instructions, or they may become aggressive. Sometimes, in cases of bullying, victims can come to have problems with authority, leading to conflict with their teachers and parents. 7.7% of victims of bullying show problems of oppositional conduct, compared to 3.2% of controls (Kumpulainen, Räsänen and Puura, 2001). These rates are much higher with those who are both victims and bullies. The same trend was found in an article that studied the differences between victims of direct and relational bullying, bullies, bully/victims and control groups. For direct bullying, bully/victims showed the most conduct problems (24.6% of these students in the clinical range),

followed by bullies (18.6%), and victims (14.9%). All these groups were much higher than the control group (7.2%). Different findings were reached for relational bullying. Only 5.6% of relational bullies manifested conduct problems. However, bully/victims (22.9%) and victims (15%) showed higher levels than the control group (9.9%) (Wolke, Woods, Bloomfield and Karstadt, 2000). It is interesting to note oppositional conduct is found to exist with the same frequency in victims of both direct and indirect bullying.

### 1.2.2. Psychological effects: Short and long term

There have been many studies done to determine the psychological effects that aggression and bullying have on the victim, with some particular psychological disorders being studied more thoroughly than others. Before discussing these disorders, it is important to discuss the general psychological distress that the victims suffer. They are generally unhappy and insecure at school, and try to avoid it (Kochenderfer-Ladd and Skinner, 2002). They often lose confidence and self-esteem, and are lonely (Dill, Vernberg, Fonagy, Twemlow and Gamm, 2004). They are also frequently neurotic, can sometimes be hysterical, and have a very unfavorable impression of themselves regarding academic competence, conduct and physical appearance (Ortega and Mora-Merchán, 2000). Kumpulainen, Räsänen and Puura (2001) found that nearly one half of victims of bullying had some psychiatric disorder, showing that the impact of this type of aggression has serious short and long term psychological consequences for many children.

Depression is one of the most frequently studied disorders in relation with school aggression and one that yields the most consensus in the literature. In their meta-analysis of peer victimization research, Hawker and Boulton (2000) found at least twelve different studies that positively associated victimization with depression with a mean effect size of .45, the largest of all psychological problems that were studied. They also noted that victims were twice as likely to report depression and suicidal thoughts as non-victims were. In another study, depression was found to occur in 26.3% of female victims as compared to 7.5% of female uninvolved students and in 13.7% of victimized boys versus 3.0% in uninvolved boys (Kaltiala-Heino et. al., 2000). Correlations carried out between the number of bullying situations experienced and the level of depression

showed a significant relationship between the two, with coefficients of .38 (Grennan and Woodhams, 2007) and .46 (Ranf, Báguena, Toldos and Beleña, 2006).

Seals and Young (2003) compared the levels of depression between victims, bullies and uninvolved students and found that victims showed more signs of depression than the other groups, followed by bullies. Craig (1998) reported equally high levels of depression and anxiety in victims. Victimized children also tend to turn towards other victimized children looking for friendship and understanding and the depression of one may reinforce the depression of the other. Additionally, one study theorizes that depression could be the result of bullying as well as a partial explanation for that bullying, as a depressed child, normally more introverted, can attract bullies (Kaltiala-Heino, Rimpelä, Marttunen, Rimpelä and Rantanen, 1999). Often, their social circles are reduced and they are more likely to react to bullying in a helpless manner, making them more vulnerable to bullying. That said, the authors found higher indices of depression and severe suicidal ideation among everyone involved in bullying, including bullies, as opposed to those that were uninvolved. Slee (1995) found more depression in victims in general but additionally noted that male bullies reported more depression than female bullies and that female victims reported more than male victims. This finding is also supported by another which shows that female victims had a higher risk of having psychiatric disorders than female bullies or bully/victims. Meanwhile, male victims were less likely to have these problems than their bully or bully/victim counterparts (Kumpulainen, et.al., 2001). Their findings concluded that 9.6 of all victims and 5.1 percent of the control population reported depression.

There are connections that have been made between the incidence of depression and suicidal ideation with the types of bullying experienced. Van der Wal, de Wit and Hirasing (2003) studied the incidence of depression and suicidal ideation in girls and boys, distinguishing between victims of direct and indirect bullying. In both boys and girls it was found that of those who experienced frequent indirect bullying reported more depression (adjusted odds ratios of 11.14 and 8.90, respectively) and more suicidal ideation (5.58 and 3.62) than those who suffered frequent direct bullying (1.91 and 3.29 for depression and 1.07 and 2.62 for suicidal ideation). Generally, the psychological impact was greater for boys as a result of indirect bullying and slightly greater for girls as a result of direct bullying. The high rate of depression linked to indirect bullying could be, in part, due to the difficult detection of this kind of bullying. It is more difficult for

teachers and peers to react and support the victim, leaving the victim to react and cope with limited social support. The coping mechanisms that they can use are also limited because there is no direct confrontation, and as a result, no conflict resolution and possibly a lack of control felt by the victim. The type of bullying impacts the psychological symptoms that a victim can experience and gender can affect that relationship as well.

Anxiety is another disorder often associated with all types of victimization, physical, verbal and indirect, and can increase as the abuse continues, due to anticipation of future attacks and general fears towards peers (Ortega and Mora-Merchán, 2000; Craig, 1998). Symptoms of anxiety were found in 10.8% of victimized children and in only 3.0% of uninvolved children in a study by Kaltiala, et.al. (2000), while Kumpulainen, et.al. (2001) found that 8.2% of victims suffered anxiety as opposed to 2.8% of the control group. This trend also applies to the groups of victims, bully/victims and bullies, the victims reporting twice as much anxiety as the other two groups. This differs with other psychological symptoms in that bully/victims showed significantly lower levels. This could be because bully/victims don't feel so unprotected and they may have a larger or more effective social support group that gives them a greater sense of security. Victimization is positively correlated with anxiety as well as the subtypes and similar disorders of social anxiety, neuroticism and anxious self-concept (Hawker and Boulton, 2000). The correlation between acts of bullying and anxiety was found to be .38 (Grennan and Woodhams, 2007). For example, social anxiety was found to be significantly higher in victims of abuse (18.2%) than in non-victims (14.4%) (Graham and Juvonen, 1998). As with most other disorders, in general, female victims report more anxiety (10.4%) than males (6.4%). This anxiety among victims is shown to have a relatively short-term effect (Hugh-Jones and Smith, 1999). This is largely due to the fear that more abuse will occur in the immediate future and the effects of feeling permanently on guard to avoid those altercations, linked to hyperarousal, another of the symptoms studied here, wane if the aggression ends. There is also a different type of anxiety, often linked to post-traumatic stress disorder, which has a longer term effect that we will discuss later (Carlisle and Rofes, 2007).

Psychosomatic disorders are the physical manifestation of psychological problems often associated with stress and anxiety. Oftentimes a prolonged stressful situation can lead to one or more physical symptoms. The most common of these are: neck, shoulder

and lower back pain, a feeling of tension, stomachache, difficulties falling or remaining asleep, headache, sensation of fatigue, and bedwetting. Katiala Heino et.al. (2000) found that there was a significantly higher level of psychosomatic symptoms in victims of bullying (4.6%) as opposed to the control group (1.9%). This trend, however, was seen more pronounced in bullies (5.1%) and, especially, bully/victims (8.7%). It is a problem, like most, that is reported more in girls (15.8% for victims compared to 4.2% of uninvolved) than in boys (5.7% and 1.1%, respectively). This difference between girls and boys was also found by Murberg and Bru (2004). They found that difficulties with peers, as well as other school stressors, have an effect on the physical well-being of the student, particularly citing headaches, neck and shoulder pain and abdominal pain. They also found that girls reported more of all of these symptoms than boys, but that regression analyses showed a more significant relationship between psychosomatic complaints and difficulties with peers in boys. They questioned whether girls actually felt more discomfort than boys or if they just reported more. The authors also considered physical changes and hormonal factors that could play a role in this difference. A study by Kumpulainen et.al. (1998) found that male victims had significantly higher psychosomatic difficulties as compared to their non-bullied counterparts and that girl victims also showed a high level of these symptoms but it was not as related to their victim status. Taking into consideration these two articles, there is some question in the results regarding the connection between psychosomatic complaints and bullying in girls, but it this relationship is clear in boys. A difference between age groups has also been shown to exist in that those who are bullied in high school reported significantly poorer physical health than those bullied in middle school (Gruber and Finneran, 2007). Victims of bullying reported having significantly more physical health problems than those who were not bullied (Delfabbro, Winefield, Trainor, Dollard, Anderson Metzger and Hammarstrom, 2006).

The emergence of post-traumatic stress symptoms is a phenomenon that has only recently been studied in relation to aggression and bullying in schools. Post-traumatic stress disorder (PTSD) is characterized by symptoms of avoidance, increased arousal, and reexperiencing the trauma, as well as the elevated impact the trauma had on the person, and is often found together with symptoms of depression and hopelessness. Avoidance symptoms include physically avoiding the people or places associated with the traumatic event and avoiding thinking of or talking about the event. Additionally,



these symptoms can include psychological numbing, emotional detachment or regression. The symptoms of increased arousal include sleep disturbances, heightened alertness, mistrust, and problems concentrating. Additionally, there is a physical response, an enhanced startle response that makes the person more jumpy when something surprises them. Reexperiencing is characterized by constantly thinking about the event, even when the person tries not to, having nightmares and flashbacks, and difficulty concentrating. Impact symptoms reflect the agitated behavior often manifested by young victims of trauma. Normally, the onset of PTSD is the result of a severe traumatic experience and has generally been studied in war victims, rape victims and people involved in car accidents. However, a direct relationship between PTSD symptoms and school aggression has recently been recognized. One recent cross-national study (Ateah, C., Báguena, M.J., Beleña, A., et al., 2004) has found that as a result of their worst school experience, 9.8% of males and 9.3% of females reported some symptoms (in the “at-risk” range) and .7% of males and 1.3% of females showed clinically significant levels of PTSD, fulfilling the diagnostic criteria. In a study done with middle and high school girls, levels of PTSD symptoms were significantly higher for those intimidated and ridiculed by their peers, particularly among those in high school (Gruber and Fineran, 2007). Another study, which correlated the total number of aggressive events with different psychological symptoms, found that the correlations were very high with increased arousal (.49), avoidance (.47) and reexperiencing (.42) (Ranf, Báguena, Toldos and Beleña, 2006). In many cases bullying or aggressive events will not have sufficient impact in order to cause clinically significant post-traumatic symptoms, but continued severe bullying or one particularly difficult event could provoke these symptoms, which often have long term implications. These long term effects have been compared to those of child abuse (Carlisle and Rofes, 2007).

Self-esteem and overall self-perception are characteristics that are generally affected by peer victimization. A study that measures global self-esteem positively correlated it with victimization with a mean effect size of .39 (Hawker and Boulton, 2000). Victims tend to view themselves negatively in the social domain as well as academically and in other areas. They have lower self-esteem than bullies or uninvolved students (Seals and Young, 2003) although the differences were not very large in this particular study. In another study, however, (Callaghan and Joseph, 1995) the children who reported themselves as victims were much more likely to have a negative global self worth than

non-victims ( $t = -3.22, p < .01$ ). Kumpulainen et.al. (1998) also found a very large difference between victims and non victims for girls (having a mean score on the Mann-Whitney test of 22.4 and 6.4,  $p < .0001$ , respectively) and boys (7.7 and -14.6,  $p < .0001$ , respectively) for negative self-esteem. In the inverse, positive feelings of self worth were shown to be significantly higher in those children who weren't victimized than in those who were (Graham and Juvonen, 1998). Related problems also found in victims were a loss of confidence in oneself and general insecurity. They feel shame and often think that if they are being victimized it is for a reason, and that there must be something wrong with them. Often, bullies single out characteristics of the victim (height, weight, physical strength, use of glasses, etc.) that they are already sensitive about, and that teasing can make them feel even worse about it. The effect of school aggression on self-esteem depends on the severity and consistency. If a child suffers one or few isolated incidents over time then it is not likely to have an effect on their self-esteem. However, if there is a generalized peer rejection or a more continued aggression situation, self-esteem can be negatively affected in the short and long-term (Nesdale and Lambert, 2007). A lower self-esteem is generally regarded as a long term effect of school aggression and this is particularly true in women (Hugh-Jones and Smith, 1999; Kumpulainen and Räsänen, 2000). The type of bullying can also play a role in the gravity of the harm done to one's self-esteem. One study showed that victims of direct aggression had lower self-esteem than victims of indirect aggression (Marini, Dane, Bosacki and YLC-CURA, 2006). This could be due to the public embarrassment and the idea that many more people are aware of and witness the aggression, potentially influencing others opinions in the mind of the victim. The identity of the bully is also an influential factor. Students reporting being bullied by other students showed much lower levels of self-esteem than their non bullied counterparts ( $F = 54.08$ ) while those reportedly bullied by teachers also showed poorer self esteem ( $F = 36.79$ ) but not to the same extent (Delfabbro, et.al, 2006). Those victimized by peers reported less satisfaction with their appearance and greater peer alienation. A person's self-esteem greatly influences other aspects of their well-being, particularly depression, social skills, social relationships, emotional problems and scholastic performance. These effects can carry on until adulthood, influencing choices the person makes and their relationships with others. It is pervasive in almost all aspects of the person's life and bullying can cause long term damage that is very difficult to correct later on.

Another possible effect rarely measured in the literature is negative affect. Negative affect was shown to increase with an increase in victimization and also when the victim develops a stronger belief that the aggression is an acceptable form of behavior. Attitudes towards abuse and aggression, such as considering it justified or normal, as well as attributions, such as self-blame, can contribute to the effects of victimization (Dill et. al., 2004). This negative effect has been strongly linked to the personality trait of neuroticism in several studies which we will see later on.

Delfabbro et al. (2006), in their research of bullying carried out by teachers, found that this kind of victimization, more commonly found in boys, has both emotional and academic consequences. Approximately 40% of students reported being bullied or “picked on” in this Australian study. Most of these children had lower academic ability and less motivation to finish school. They also showed a higher incidence of high risk behavior, drinking and using drugs frequently. Teachers tended to select the students based on their academic performance and motivation towards learning while peers focused more on the social abilities and support of the child. In their regression analysis, the most significant predictors of teacher victimization were life satisfaction and their intention to complete year 12 of school. For victims of peers, life satisfaction was the strongest predictor, followed by gender, family unemployment and introversion. Another interesting finding of this study was that the prevalence of bullying was very much the same in all schools. They compared public and private, urban and rural, and co-educational and single sex schools and found no significant differences in the incidence of peer or teacher bullying in boys or in girls. This shows that bullying is a universal problem that does not differentiate between socioeconomic class, geography or gender separation.

### 1.2.3. Long term implications

#### 1.2.3.1. Psychological symptoms

There are many psychological symptoms of those that suffer bullying in school that do not dissipate quickly but instead can stay with the victim for years, shaping their long-term outlook and lives in general. These symptoms are generally more

internalizing, such as anxiety and depression (Kumpulainen and Räsänen, 2000). Lowered self-esteem is something else that can affect the person well into adulthood, influencing their social relationships, particularly in women (Hugh-Jones and Smith, 1999). Carlisle and Rofes (2007) found that numerous symptoms and emotions are carried on throughout the lives of victims, very similar to those of childhood domestic abuse. One phenomenon they described is the shame and guilt that children feel as a result of the abuse, since they need to believe that the world is good and, consequently, they must be bad to have these problems. This shame leads them to have increased feelings of anxiety and depression that can continue on into adulthood. Another frequent set of symptoms that can persist are those related to post-traumatic stress disorder, particularly increased arousal or alertness (found to be the result of a neurological change resulting from traumatic events), reexperiencing (particularly in the form of nightmares or flashbacks), irritability, problems with authority figures, and vengeful ideation, the latter three often but not always linked to PTSD. They also found that somatic complaints and dissociation are symptoms that can be long lasting. One last effect of bullying with important long-term implications has to do with the age of the child when bullied. Late childhood and adolescence is a time marked by strong social relationships and the importance of these in their lives. At this stage, friendship is especially crucial in forming the sense of identity of the child. If this stage is negatively affected by peer interaction, the process of forming personality and identity could be impaired, leading to future problems with intimacy and autonomy. Kumpulainen and Räsänen (2000) found that the younger the victim of bullying is, there are generally more symptoms and more long-term consequences. Older victims, however, reported more internalizing symptoms, relational difficulties and somatic complaints. The researchers found that at the age of 12, children are more vulnerable to school aggression and that this bullying is more intense and persistent, and that internalizing and somatic symptoms are found more often in these victims three years later. They also reported poorer health three years later. Additionally, these researchers studied the effects of long term bullying and found that the longer a child is bullied, the higher the magnitude of school adjustment problems. This is later compounded because when a child is older they find less supportive attitudes in their peers (Rigby and Slee, 1991) which can heighten their feelings of isolation.

One long-term phenomenon that has been shown to occur is the continuance of roles in the bully-victim dynamic. Salmivalli, Lappalainen and Lagerspetz (1998), in their follow-up study, discovered that those, particularly boys, that were classified as victims at age 13 had a similar status three years later. There was an important decrease in the number of victims of chronic bullying between 12 and 14 years old, but the incidence of bullying acts remained the same or increased slightly. This means that the bullies were just as active but their actions were directed towards fewer, selected, victims, that this aggression was less generalized. They found that there is a very high consistency in victimization for a same victim. Even if they change classes they maintain their victim status because they are the newcomer, which normally comes along with greater insecurity and a shifting social support network, making them more vulnerable to bullies in that class. The authors proposed that it is more effective to change the bully to a different class. They would have to rebuild their social support and find new victims, which is much more difficult in a group that is already formed. The continuity of victim status has even been found to extend on to adulthood. Elliot and Shenton (1999) found that 36% of those bullied in school were still bullied at work or at the university. This could be in part explained by the retrospective study of Carlisle and Rofes (2007) who studied 15 adult males who had been bullied in school. They were asked about their long-term problems and 7 of the participants cited internalizing symptoms such as depression, anxiety and somatic difficulties. They also said that these symptoms were of a permanent nature. Six of the participants reported that their experiences being bullied have led them to have an avoidant relational style meaning they avoid social relationships altogether. The other two subjects said that they became stronger as a result of their experiences.

### 1.2.3.2. Interpersonal relationships

Problems with personal relationships, particularly romantic ones, are found to be very relevant in the study of childhood bullying. Kumpulainen and Räsänen (2000) found that bullied children have more complications in their personal as well as sexual relationships. Hugh-Jones and Smith (1999) reported that approximately one half of those bullied in school suffer long-term consequences, particularly in their personal and romantic relationships. They also note that females are more likely to suffer long-term

consequences and the more severe the bullying the greater the risk of long-term ramifications. The effects on interpersonal relationships could be explained in part by a study carried out by Jantzer, Hoover and Narloch (2006). They found significant correlations between victimization and shyness as well as significantly lower levels in trust and friendship quality in victims. The increased shyness in victims could make it harder for them to make friends and less likely to open up to people and instigate new relationships. Their lack of trust could prevent these friendships from blossoming, remaining on a superficial level, with an important emotional distance remaining. The person may feel that this person could harm them in the future. Another possible effect on interpersonal relationships could be the shame that some victims feel. They may feel that they don't deserve friendships or that they don't want people to find out about their previous problems or character flaws they may think they have as a result of the abuse. They may be afraid that the rejection they suffered when they were younger will repeat itself and they will be hurt all over again.

### 1.3. Role of personality characteristics and traits

#### 1.3.1. Coping mechanisms and strategies

People cope with stressful events in many different ways. Effective coping depends on the person's ability to manage their emotions and control their behaviors in stressful situations. These are characteristics of people that vary greatly and usually evolve with age and experience. In the study of school bullying there has been some attention given to the way that victims cope with their situation as well as the general coping styles and mechanisms that they employ in their day-to-day lives. There has been some research on how victimization affects coping and the coping mechanisms most used by victims. However, there has been less research on how coping can affect victimization or the effect that the use of different coping mechanisms can have on subsequent psychological problems.

It has been found that victimization by peers can influence the emotional reactions of people, affecting their use of coping strategies (Kochenderfer-Ladd, 2004). Victims tend to be less optimistic, less in control of problematic situations, less confident and more helpless when faced with problems, which can aggravate their situation and lead to a long term bullying trend (Cassidy and Taylor, 2005). Cassidy (2009) found that the most effective coping strategies for these situations are approach strategies while those that have the most negative effects are helplessness and avoidance strategies. He also found, using a regression analysis, that the best predictors of victimization are the sex of the victim (females being more likely victims), the family situation (children from intact families being more prone to victimization), having lower social identity (lesser identification with a social group) and poorer problem solving skills (more helpless, less in control, less confident, less creative, less likely to approach and more likely to avoid a conflict.).

Active coping strategies (also called approach strategies) are generally direct attempts to change a stressful situation. This type of coping implies cognitive processes and behaviors used to confront and modify what is stressful for them (Kochenderfer-Ladd and Skinner, 2002). The cognitive aspect could include considering the problem from a different perspective to see the positive side or accepting the reality of the situation. Active coping behaviors can be seeking social support, making jokes about the situation or doing something about the problem (problem solving).

Passive coping strategies (also called avoidance strategies) are the ways that people manage their cognitions about the situation or their emotional reactions, which often have little to do with the problem itself. These can be cognitive distancing, internalizing or externalizing (Kochenderfer-Ladd and Skinner, 2002). Cognitive distancing is when a person distracts him or herself or refuses to think about the problem. Internalizing occurs when the victim blames him or herself or has self-destructive tendencies, such as drug or alcohol abuse. This type of coping is often associated with anxiety in children. Externalizing coping is when the person takes their pain out on others, behaving negatively and sometimes aggressively with peers or family members.

Problem solving strategies are the most common (52%) and seem to be the most adaptive (Mahady Wilton, Craig and Pepler, 2000). Of these strategies, 84% use them in

a passive manner, thinking about the problem and planning and 16% use them actively, taking direct action to resolve the situation. These active problem solving mechanisms are shown to be most effective in specific situations and in the long run, as they deescalate the bullying situation, denying the bully the reinforcement they are looking for, making it less likely for the bully to be aggressive in the future. However, these types of coping mechanisms require well developed social skills as well as a minimum of social support by peers. These are characteristics that are often lacking in victims of bullying.

Aggressive and emotional strategies are used most frequently by 43% of the population. Some of these strategies are shown to be more effective in modifying the behavior of the aggressor than others. Aggressive coping is counterproductive and was found by Mahady Wilton, et. al. (2000) to be 13 times less likely to deescalate a bullying situation than problem solving strategies. The passive strategies (for example controlling their emotions) can end a bullying situation, but not necessarily shield the victim from future attacks. The temporary alleviation can reinforce the victim and they may choose to use these strategies in other situations instead of more functional strategies. This creates a vicious cycle and has little effect on long-term bullying situations.

These findings are also supported by Kanetsuna, Smith and Morita (2006), who recommend support seeking, but recognize that it is not very common because victims feel ashamed and do not wish to share their experiences with others. They also may lack the social friendship structure to offer them such support. They found that fighting back and passive coping are the least adaptive forms of coping.

Effective coping depends on the ability of the person to regulate their emotions and reactions in stressful situations (Kochenderfer-Ladd, 2004). When a person is victimized their emotional reactions are influenced, usually for the worse, which can lead to further victimization. Their use of coping mechanisms is also affected, one of the most commonly used being cognitive distancing, separating their thoughts and emotions from the stressor, often making a conscious effort not to think about the problem. The author does not recommend cognitive distancing, however, because it can lead to internalizing problems, including somatic complaints and depression. Another common response is anger, which can lead to thoughts or acts of revenge which in turn reinforce



the bully, provoking more victimization and psychological symptoms (Kochenderfer-Ladd, 1997). Kochenderfer-Ladd (2004) found that girls were generally more intensely emotionally aroused than boys. The author thought that this was due to their increased expressivity, and found no difference in the outcomes between the two genders. They also found that older children were more likely to exhibit intense anger than younger children. Younger children's anger tends to be short-lived, and again, the author found no significant differences between the two groups.

Kochenderfer-Ladd (1997) found that a more adaptive emotional reaction is fear or embarrassment which, particularly fear, can often lead the person to confide in and get help from peers, parents or teachers. This support seeking is found to be more common among females (Cassidy and Taylor, 2005). Conflict resolution and seeking advice are two active coping strategies which also lead to positive outcomes (Kochenderfer-Ladd, 2004). Involving third parties makes the victim feel more secure and pressures the bully to change their behavior. The third party can often guide the process of reconciliation and avoid or buffer overly zealous emotional responses. Mediation can also occur, allowing for a more open and fluid dialogue between the two parties in order to discuss the problem and take steps to resolve it.

A study carried out with young offenders examined the way that the use of emotional, detached, relational and avoidance coping affect later psychological distress (Grennan and Woodhams, 2007). First, the authors correlated the number of bullying events with the different coping styles and found that emotional coping was significantly positively correlated with the number of events while the other three styles were slightly negatively correlated. Then, they ran correlation analyses with psychological symptoms. They found that emotional and avoidance coping were highly correlated with depression (.67 and .46, respectively), anxiety (.55 and .39), and stress (.62 and .34). They also found that detached and rational coping had minimal and often negative correlations with these same variables. These results lead us to believe that emotional and avoidance coping are the least adaptive and do little to avoid bullying situations and lessen psychological distress while detached and rational coping seem to be more conducive to better outcomes.

In a meta-analysis carried out by Hunter and Boyle (2004), they studied the most frequently used forms of coping in victimized children. They found that passive coping strategies were the most common, specifically, ignoring the bully and walking away. However, more assertive strategies such as fighting back were also found, especially in boys. Female victims of indirect bullying were found to be more self-destructive (Olafsen and Viemerö, 2000) or to use other internalizing strategies as boys do when they are victims of direct bullying. Other gender differences were also found. Within active coping styles, males were more problem focused, while females sought social support more frequently. In passive coping mechanisms, women used wishful thinking slightly more while men used more avoidance strategies. With age, both sexes tend to seek social support less. Internalizing and externalizing strategies were both positively and significantly correlated to victimization in both sexes.

Olafsen and Viemerö (2000) found few overall differences between victimized and non-victimized children. However, they did positively associate victimization with introversion, especially in the case of girls. They found that female victims of indirect bullying turn that aggression towards themselves and not others, leading to internalizing difficulties.

Differences were also found based on the frequency and duration of the abuse suffered. Victims of short-term infrequent aggression used problem-focused coping more than any other strategy or group, while short- and longer-term frequent victims used more wishful thinking and avoidance strategies (Hunter and Boyle, 2004). Seeing each episode as an individual problem to be resolved helps the child feel capable of changing the situation. When these events become a trend the child may begin to feel helpless and accept that this will continue to happen and that the path of least resistance can be considered by them to be the easiest. There are differences in individual coping styles that can affect the success that children have at dealing with and overcoming childhood aggression. It can be speculated “that frequent peer harassment may place some children at greater risk for dysfunction than others because of individual differences in the way the children (a) construe or appraise such stressful events (b) respond to aggressive peers, or (c) manage, cope, or compensate for the feelings they experience” (Kochenderfer-Ladd and Skinner, 2002). More favorable outcomes are expected when an approach coping method, such as problem solving, is used by the

victim effectively. However, in cases of more severe victimization, it was found to be much more difficult to control or change the situation and in these cases avoidance strategies may be more effective. This could be because victimized children may not have the influence over their peers that others have. Generally speaking, Hunter and Boyle (2004) found that if the children were helped to regain a sense of control over the situation their use of coping strategies would be more adaptive. Girls that sought social support had more success in dealing with the aggression while distancing coping, although it runs the risk of producing anxiety, buffered the boys from low peer regard (Kochenderfer-Ladd and Skinner, 2002).

### 1.3.2. Neuroticism

Many studies have emerged over the last several years to study the role that personality traits play in school aggression. Two of these traits, neuroticism and extraversion, will be studied here.

An interesting personality profile of victims of school bullying was created by Tani, Greenman, Schneider and Fregoso (2003) using a questionnaire based on five main personality characteristics (the “big five”). They found that victims, who scored low on agreeableness, tend to protect their own interests more often. They are also more interested in their own pleasure (shown by lower levels of conscientiousness) and score low on friendliness. These are traits that tend to be further exacerbated when they are victimized by their peers as they try to protect themselves and focus their attention inward. This lack of empathy and friendship can lead to a lack of a social support system and further victimization. Victims scored the highest on emotional instability, also known as neuroticism. They tend to have problems regulating their emotions which can escalate tense situations and lead to a pattern of confrontations with peers.

A person with a high level of neuroticism is described by Eysenck and Eysenck (1989) as anxious, worried, with mood swings, and often depressed. They may sleep poorly and have psychosomatic symptoms. They also tend to be overemotional, with exaggerated responses to all types of situations and it is difficult for them to return to

normal afterwards. These reactions interfere in their social adaptation and may cause them to react irrationally.

One study by Whittington and Huppert (1998) showed that the reporting of neurotic symptoms was directly influenced by psychiatric symptoms. They also found that trait neuroticism accounted for approximately 11% of the variation in psychiatric symptoms. Ehrler, Evans and McGhee (1999), in their study of 9 to 13 year olds, found that neuroticism is highly correlated with the following psychological symptoms: Anxiety (.72), Depression (.47), Social problems (.41), Atypical behavior (.31) and Somatization (.27). They believed that this has much to do with the fact that aspects of neuroticism represent a person's ability to cope with stress. If a situation is particularly stressful, they often have problems reacting and resolving it. Additionally, Ranf (2006) found, comparing a group of subjects with high levels of neuroticism to a group with low levels of neuroticism, that the group with high neuroticism had much higher incidence of many symptoms, with the following t-scores: Depression (3.76), Increased arousal (4.22), Hypervigilance (3.37) Reexperiencing (3.19), and Avoidance (3.07). This group also remembered more adverse events in school (2.71). That is, people who manifested more neuroticism suffered more depression, fear, symptoms of PTSD, and victimization. All of these studies emphasize the strong relationship that exists between neuroticism and many adverse psychological symptoms.

Teasdale and Green (2004) offer a possible explanation for this when they note that neurotically motivated self-attention, also called rumination, is associated with psychological distress, because the person thinks or dwells more on the negative aspects of their life. They found that neuroticism provokes biases in autobiographical memory, people tending to access unpleasant memories better than pleasant ones, increasing one's vulnerability to depression. A very interesting finding (Whittington and Huppert, 1998) shows that the number of adverse life events and the mental state after the events are directly affected by trait neuroticism. They believe that this is due to the way the behavior of the individual could possibly contribute to those life events. These findings were supported by Mynard and Joseph (1997) who demonstrated that children with higher scores on a victimization scale also had higher scores on the neuroticism scale (11.71) than non-victimized children (9.94). Duffy, Shaw, Scott and Tepper (2006) found

that even in people with generally high self-esteem, neuroticism can trigger undermining behavior, which can lead to victimization and psychological problems.

Bollmer, Harris and Milich (2006) also found that victims had higher levels of neuroticism, and extrapolated that this neuroticism made the victim even more vulnerable to victimization. People with high levels of neuroticism tend to ruminate on negative events and aspects of their lives and this is counterproductive. The authors also found that victims scored lower on conscientiousness. They theorize that the combination of high neuroticism and low conscientiousness creates a lack of restraint that negatively influences their behavior in bullying situations. They often act impulsively and emotionally which can exacerbate the situation.

These authors came to the conclusion that students who demonstrated high levels of neuroticism tended to have more negative emotions toward their bully. They demonstrated significantly more negative affect, anger, blaming the bully and less forgiving. The authors then found that these same variables led to further victimization. These negative emotions and, possibly, actions towards the bully then lead to a social climate that could favor further bullying activity. In the mediation analyses carried out in order to study the influence that certain variables have on the relationship between neuroticism and victimization, the authors found that the three most significant mediators were the degree of anger expressed towards the bully, blaming the bully, and the level of distress while narrating their experience. If the relationship between the bully and victim is exacerbated by anger and the constant memory of past conflict it worsens, leading to more conflict and possibly drawing the attention of other potential bullies.

In their controlled study of children rejected by their peers, Nesdale and Lambert (2007) found that peer rejection led to an increase in negative affect, emphasizing how sensitive children are to how their peers interact with them, and that this rejection can lead to depression. In their regression analyses, they found that there was also a strong relationship between rejection and maladaptive social behavior, and that this relationship is mediated by negative affect. This maladaptive social behavior can, in turn, lead to further rejection. The authors also found that only one act of peer rejection was enough to influence the social behavior of the children. The students that were rejected showed

more anxiety, anger, depression and lower self-esteem. They were also found to be more aggressive and disruptive and worse at solving social problems. In conclusion, one act of peer rejection can cause many different psychological, behavioral and social problems and that negative affect, highly connected to neuroticism, has a strong role in these outcomes.

The relationship that neuroticism has individually with both victimization and psychological symptoms is still uncertain. Studies have shown that neurotic people tend to report more negative life events, for example school aggression, but it is not clear if the person actually has suffered more abuse or if they just remember more because of their tendency to ruminate. The analysis of the relationship with psychological distress has the same complication, in which neuroticism may lead the person to report their feelings and behaviors in a more negative light. Most complicated is the study of how neuroticism can affect the proven relationship between victimization and psychological symptoms. In this thesis a mediational analysis will be carried out to study if neuroticism plays a role in that relationship, and if so, to what degree.

### 1.3.3. Extraversion

Several studies have researched the personality trait of extraversion and the role it may have in victimization. An introverted person has been described as calm, introspective, reserved, distant (except with close friends), not impulsive, does not get angry or aggressive easily, and tends to be highly ethical and somewhat pessimistic (Eysenck and Eysenck, 1989). It is generally thought that victims of bullying tend to be introverted and isolated from their peers. The relationship with bullying could be cyclical in that a child who is introverted and has limited social support could be an easier target for victimization, and in turn, this victimization could lead the child to become even more introverted.

What is debatable in the literature is the existence of a connection between victimization, extraversion and symptoms, the extent of this connection, and if it is significant or not. Extraversion was found to be significantly negatively correlated with peer victimization by Mynard and Joseph (1997). Victims had a mean score of 16.16

while noninvolved students scored 17.97 and bullies, 19.81, supporting the idea that victims are generally more introverted. This was also found to be true by Delfabbro et.al (2006), who came to the conclusion that introversion was one of the most indicative variables of peer victimization. Those who were never bullied by peers were shown to be significantly more extraverted, with a mean of 36.87, than those who were often bullied (34.32), and their regression analysis demonstrated that this personality trait was a significant predictor of bullying. Ehrler et.al. (1999) studied the correlation between extraversion and different psychological symptoms and found significant, negative correlations with depression (-.37), anxiety (-.33) and social problems (-.29). It is possible to deduce that these social and psychological problems could result in conflicts with peers.

Olafsen and Viemerö (2000) found few overall differences between victimized and non-victimized children. However, they did positively associate victimization with introversion, especially in the case of girls. They found that female victims of indirect bullying turn that aggression towards themselves and not others, leading to internalizing difficulties.

Ranf (2005), however, found that there was no correlation at all (-.01) between extraversion and the number of adverse events at school, and there were no significant differences with psychological symptoms. That said, students with low extraversion reported slightly more hopelessness ( $t = 1.85$ ), depression ( $t = 1.51$ ), and avoidance ( $t = 1.63$ ). Additionally, in a stepwise regression analysis, it was found that introversion was a significant predictor of both avoidance (beta of .13) and depression (.15). In correlational analysis, a significant relationship was found between extraversion and active coping (.22, significantly more in men than in women) while introversion was related to neuroticism (.22) and depression (.15). This is something that should be studied further, to see what role introversion plays in peer relations and possible psychological symptoms. Bollmer et.al (2006) also studied victimization and its relationship to introversion and found no connection (-.02). It is important to note that introverted children do not generally lack friends. Their circles are usually smaller but they are not necessarily isolated from their peers or without a support system. It is possible that introversion by itself is not directly related to victimization but when it is combined with other personality traits can exacerbate their problems with peers and the

psychological difficulties that may arise. They may be more prone to internalize their problems leading to more anxiety and depression. A possible explanation for the higher levels of victimization found in some studies may be that as a result of bullying, the children can become more isolated from their peers and less inclined to socialize and enjoy socializing with them. This change in peer relationships and the temporary shift in activities and preferences of the victim could lead to the conclusion that the person is introverted when they are in fact unmotivated towards interacting socially with their peers because of their victimization. In any event, due to the important discrepancy in the literature regarding the relationship between victimization, introversion and psychological distress, it is important to study it further. That will be done here, studying the relationship between introversion and victimization as well as psychological symptoms. Additionally, a mediational analysis will be carried out to analyze if introversion plays a role in the relationship between victimization and psychological distress.

In conclusion, what is clear in the literature is that school aggression occurs all over the world, among boys and girls of all ages. The victims of this aggression sometimes suffer psychological problems that can be temporary or can help shape their future outlook on life. The way that they are affected by these events can be influenced by the nature of the aggression and the coping mechanisms that the victim uses to deal with it. Additionally, personality traits of the victim may affect their level of psychological distress and may be related to their victim status. Here, we will study the relationships between all of these factors as well as the prevalence of different types of bullying acts, differences between groups and the frequency of different psychological symptoms.

#### 1.4. Objectives and hypotheses

In this section we will introduce three general objectives, each one to be followed by a series of predictions based upon the body of literature presented in this section. The objectives and hypotheses of this study are the following:



**Objective 1.** Explore the prevalence of different types of aggression and bullying as well as analyze differences between groups. This information has been obtained by student self-reporting about a wide spectrum of aggressive situations. Taking into consideration the operational definitions described in the introduction, the specific acts in the questionnaire are divided into four categories (verbal, physical, indirect and punishment). We will compare these types of aggression and study if there are significant differences between groups based on sex, age and nationality:

**Hypothesis 1.1.** Based on the literature mentioned in the introduction we believe that there will be significant differences in the types of abuse suffered by boys and girls. We hypothesize that boys will report more physical aggression, while girls will report more indirect aggression. We anticipate that levels of verbal aggression will be similar for both sexes. Punishment is expected to be somewhat higher in boys.

**Hypothesis 1.2.** There is much debate about the types of experiences that immigrants may have in school and if there are differences between them and natives. Generally speaking, there is quite a large separation between ethnic groups in the studies cited, the lack of interaction in some ways protecting the groups from aggression from others. In this study, however, we expect that this isolation does not exist to the same degree. Most, although not all, of the immigrants studied here are from countries where Spanish is the primary language, making integration with the native group much easier. Thus, we expect little difference between the two groups, perhaps slightly more aggression in the native group. There is also a possibility that immigrants may suffer some types of verbal aggression (for example name-calling) more than native students.

**Hypothesis 1.3.** There are varying results described in the introduction regarding differences in aggression depending on the age of the involved children. We expect, based on most of these studies, that physical and verbal aggression will decrease with age. However, we

expect levels of indirect aggression to increase with age, as it is a more calculating, subtle and complicated type, requiring more knowledge and experience that comes with age.

**Objective 2.** We will study the effects of aggression and bullying on psychological well-being taking into consideration the sex, age and nationality of the victim. We will examine the differences between subjects that have different levels of victimization and according to the type of aggression experienced. We will explore the differences between two groups: those who are not bullied and those who are bullied often by their peers. Additionally, we will take into account the type of bullying suffered and see if this affects the psychological symptoms.

**Hypothesis 2.1.** We believe that those who are bullied will generally suffer many more psychological symptoms in general, and that the more a person suffers aggression the more psychological problems they may have. There will most likely be some symptoms seen more frequently than others in subjects. Based on the literature we expect high levels of depression and post-traumatic stress symptoms to be especially frequent. We also anticipate the behaviors of hypervigilance and oppositional conduct to be more common.

**Hypothesis 2.2.** The literature cited in the introduction leads us to believe that girls will report significantly more psychological symptoms than boys. This may be particularly true for depression and somatic complaints. Boys may have more problems with oppositional conduct.

**Hypothesis 2.3.** We believe that there will be little difference in psychological symptoms for age groups or based on their immigration status. There has been more severe long-term psychological distress witnessed in younger victims. However, in this study we are focused on short-term psychological difficulties.

**Objective 3.** We will explore the influence that personality characteristics (neuroticism, introversion, and coping styles) have on the psychological well-being of the child, the frequency and severity of the aggression, and the relationship that could exist between the three. Specifically, we will:

- Study the differences between girls and boys on personality characteristics.
- Study the differences in victimization, symptomatology and coping mechanisms used between groups of students with low and high levels of neuroticism and introversion.
- Examine if the emotional aspects of personality (introversion and neuroticism) mediate the relationship between the level of aggression and the consequences for the psychological well-being of the children.
- Examine if the cognitive aspects of personality (coping mechanisms) mediate the relationship between the level of aggression and the consequences for the psychological well-being of the children. We will study the use of three different coping styles (internalizing, externalizing and reference to others) and how the use of these styles affects their victimization status or the psychological symptomatology. Additionally, we will examine which are the specific mechanisms used by children who suffer more or less aggression and bullying and which are associated with a better or worse psychological prognosis.

**Hypothesis 3.1.** The levels on the personality tests may show differences between boys and girls. We believe that girls will show higher levels of neuroticism. If there are differences in coping, based on the literature described in the introduction, we would expect to see them in the individual coping mechanisms that students use and not in the overall coping styles.

**Hypothesis 3.2.** It is hypothesized that there will be significant differences in psychological symptoms between subjects with high and low levels of neuroticism. People with high levels of neuroticism will show higher symptom levels in general. Specifically, we expect to find more depression, somatic complaints, post-traumatic stress disorder and hypervigilance. Furthermore, we believe that there will be significant differences between the two groups in terms of their victimization status. We expect there to be greater incidence of reported victimization among subjects with higher levels of neuroticism. In reference to the mediation analyses, we anticipate that there will be a significant relationship between victimization and adverse psychological symptoms and that this relationship will be mediated in part by neuroticism.

**Hypothesis 3.3.** Based on part of the literature, it is hypothesized that there will be no significant differences in psychological symptoms between subjects with high and low levels of extraversion. There is discrepancy in previous research about the role that extraversion plays in both bully victimization and psychological symptoms, and the results obtained here may not support the present hypothesis. Regarding the mediation analysis, it is anticipated that there will be no mediating effect of extraversion on the relationship between victimization and psychological symptoms.

**Hypothesis 3.4.** In the study of coping styles and mechanisms, based on the literature described in the introduction, we anticipate that some mechanisms will be more effective than others. Some may be linked to increased victimization, due to the effect that the victims reactions could have on the relationship with the bully and the social climate in general. It is also expected that some of the coping mechanisms may be counterproductive in lessening the psychological impact of victimization. We expect to find some differences in subjects with high and low levels of interiorizing. People with higher levels of interiorizing may show higher levels of depression, PTSD and avoidance, among other symptoms. This is due to the victims blaming themselves or trying to

ignore the problem and not being able to. We also anticipate that this group may have higher levels of victimization, as they might ignore the problem or give up instead of trying to resolve the situation. We also anticipate the use of this coping style will mediate the relationship between victimization and psychological symptoms.

**Hypothesis 3.5.** Differences are expected to be found in subjects with high and low levels of exteriorizing. We expect subjects with higher levels of exteriorizing to manifest fewer psychological symptoms in general, as they are most likely to confront their problems before they cause more serious psychological harm. It is more likely that this group will have lower levels of victimization, because these coping mechanisms are more adaptive to the situation, promoting problem resolution and using their social network to ward off bullying attacks. We do not expect exteriorizing to significantly mediate the relationship between victimization and symptomatology in a negative manner. As externalization is shown to be a more adaptive coping style, there should be an inverse relationship. That is, victims of school aggression may suffer less psychological symptoms if they use this coping style more.

**Hypothesis 3.6.** In the complex social atmosphere that exists in schools and particularly in bullying situations, it is important to take into account the role that third parties have on the victim's situation and the psychological consequences. The literature described in the introduction emphasizes the importance of other people (friends, teachers, family...) in the resolution of bullying situations. If the victim feels that they have the support of others they are more likely to overcome adverse situations and recover emotionally. We don't expect the reference to others coping style to contribute to victimization or a worse psychological outcome. Furthermore, this type of coping style may show to be productive, leading to less severe psychological difficulties as a result of bullying activity.

## CHAPTER TWO: METHODS AND INSTRUMENTS

The main purpose of this study is to examine the psychological symptoms manifested in victims of childhood aggression and determine if there are personality variables or coping mechanisms that mediate this relationship. We will look at the differences in victimization and psychological symptoms between people based on: two personality traits (neuroticism and introversion), 18 coping mechanisms, individually and grouped into three coping styles (exteriorizing, interiorizing and reference to others), gender, immigrant status (Spanish nationals or immigrants), and age. This is carried out using four different scales: *Student Alienation and Trauma Scale (SATS)*, *My Worst Experience Scale (MWES Part II)*, the *Adolescent Coping Scale (ACS)*, and *Eysenck's Personality Questionnaire-Junior* (Neuroticism and Extraversion/Introversion Subscales).

### 2.1. Description of the sample that participated in the study

The sample is comprised of a group of 519 subjects of Spanish and foreign nationalities, all students from three different secondary schools in the maritime area of the city of Valencia. The maritime area is made up of the neighborhoods of Grao, Nazaret, Cabañal and Malvarrosa. These neighborhoods are largely considered to be working class with a relatively large number of immigrants and gypsy inhabitants. The three schools chosen to participate in the study were IES Cabañal, IES el Grao and IES Islas Baleares. All three schools have students from 7<sup>th</sup> through 12<sup>th</sup> grade (approximately 12 through 18 years of age). They were chosen due in part to their large immigrant populations, allowing for large enough sample sizes to carry out the comparisons between Spanish and foreign nationals.

The questionnaires were given to a slightly larger group of students but, following an analysis of inconsistent responding in the MWES and SATS scales, some were

eliminated due to several inconsistencies in their responses, indicative of not paying proper attention to the questions or random response selection, and this selective elimination was done so as not to taint the overall sample.

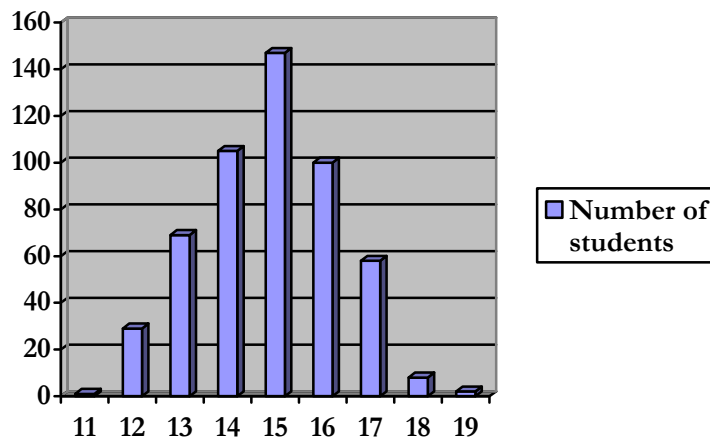
**Gender.**

Of the remaining subjects, (n = 519), 273 (52.6%) were boys and 246 (47.4%) were girls.

**Age.**

The ages of the students varied some but the bulk of the sample (479) were between the ages of 13 and 17 when the study was carried out. The mean age of the subjects was 14.8 years old with a standard deviation of 1.44. The following figure reflects the ages of the participants:

Figure 1. Age of the students who participated in the study.



**Immigrant status.**

There were many immigrants consulted in this study from numerous countries. Immigrant status was left as an open ended question in the demographic section of the questionnaire. The subjects wrote in the country of their nationality. The native population made up 79.1% of the sample, while children of other nationalities comprised the remaining 20.9% of the sample. The following is a table representing the different nationalities of the subjects.

Table 1. Nationality of the subjects (n = 517)

| Nationality        | # of Students | Percentage |
|--------------------|---------------|------------|
| Spanish            | 407           | 79.1%      |
| South American     | 62            | 12.0%      |
| European           | 27            | 5.2%       |
| Asian              | 11            | 2.1%       |
| Sub-Saharan Africa | 3             | 0.6%       |
| North American     | 3             | 0.6%       |
| Arab               | 3             | 0.2%       |
| Dual Nationality   | 1             | 0.2%       |

Of the 519 students of in the full subject pool, only 451 (233 boys and 218 girls) completed all of the questionnaires (*MWES*, *SATS*, *COPE* and *EPQ-R*). This was because the questionnaires were administered in a period of fifty-five minutes which proved to be insufficient for some students. In other cases, students skipped entire pages (accidentally), invalidating that specific questionnaire. The option of having the students respond to the questionnaire in two different sessions to insure their completion was considered. However, the high rate of absenteeism in all three schools made this possibility unfeasible. As a result, all statistical analysis involving psychological symptoms and personality variables were carried out using the sub-samples of the students that completed the scales. The sub-samples are shown in the following table:

Table 2. Number of students who filled out each questionnaire (n = 518)

| Scale Completed     | Total # of subjects | Boys | Girls |
|---------------------|---------------------|------|-------|
| MWES (bullying)     | 518                 | 272  | 246   |
| SATS (symptoms)     | 507                 | 263  | 244   |
| ACS (coping)        | 488                 | 253  | 235   |
| EPQ-J (personality) | 451                 | 233  | 218   |



## 2.2. Instruments used

### 2.2.1. Student Alienation and Trauma Survey (Part I)

The Student Alienation and Trauma Survey, developed by Hyman, Snook, Lurkis, Phan and Britton (2001) is a 58 item questionnaire in which the subjects are asked about specific incidents that may have occurred to them in their schools. There are two response sections. One has a six option Likert-like response format asking about the frequency with which the event occurred (0 = “Did not happen”, 1 = “One time”, 2 = “A few times”, 3 = “More than a few times”, 4 = “A lot”, 5 = “All the time”). For the purpose of this study, after translating the response options these were limited to five for two reasons. The options were translated into Spanish as the following: 0 = nunca (never), 1 = una vez (one time), 2 = pocas veces (a few times) 3 = frecuentemente (frequently), 4 = muchas veces (many times) and 5 = todo el tiempo (all the time) In the translation, two of the responses (frecuentemente and muchas veces) were very similar and created some confusion among the subjects. The second reason for reducing the number of response options was to make the questionnaire more homogeneous, as the SATS, MWES and ACS scales have very similar response options, facilitating the process of data collection and avoiding unnecessary errors. The other response section of the SATS scale has a three option Likert-like response format asking about the perpetrator of the event: another student, a teacher or both.

The items on this scale are varied and include the three major forms of aggression (physical, verbal and indirect) as well as punishment and other potentially traumatic events that could affect the person. These events have been researched thoroughly (Hyman, 1990) and have been identified as being either common or infrequent, and have been found to be particularly traumatic to students. After filling out the questionnaire, the subject must indicate which item was the worst for them. The SATS is an alternative to Part I of the MWES that specifically asks about traumatic events that are school based.

Examples of items that ask about physical aggression:

I was beaten up.

I was hit by a ruler, paddle or something else.

I was touched sexually.

Examples of items that ask about direct verbal aggression:

I was yelled at.

I was teased.

Someone talked about sex and I didn't like it.

Examples of items that ask about indirect aggression:

Someone got others not to talk to me.

Someone made up a story about me.

I was left out.

Examples of items that ask about punishment by teachers:

I was expelled from class.

Someone didn't allow me to play or be with my friends.

I was unfairly punished.

After filling out the questionnaire and marking their worst experience the subjects answered several questions regarding that experience. They were asked who their worst experience involved, how old they were when it happened, how long it lasted, what grade(s) they were in, what nationality or ethnicity the other person was, and how they felt immediately after the experience.

The full questionnaire can be found in Appendix I, Section I of this thesis.

### 2.2.2. My Worst Experience Scale (Part II)

In Part II of the My Worst Experience Scale subjects are asked about 105 behaviors, thoughts and emotions that they experienced at approximately the same time as the

aggression and/or bullying activity and as such are likely related to their adverse experiences. They respond about the frequency of these items using a Likert-like scale from 0 to 5 (0 = “did not happen”, 1 = “one time”, 2 = “a few times”, 3 = “more than a few times”, 4 = “a lot”, 5 = “all the time”). In this scale, the responses were also reduced to five options, as they were in the SATS scale. That is, 0 = “nunca” (never), 1 = “pocas veces” (a few times), 2 = “a veces” (sometimes), 3 = “muchas veces” (often or many times) and 4 = “todo el tiempo” (all the time). Then, in a column apart they respond if the symptom lasted for longer than a month (1) or not (0). From the responses given to these questions we can calculate the Inconsistent Response Index and the total MWES score. The inconsistent response index allows us to discard questionnaires of subjects that may have responded randomly to questionnaires, ensuring that these do not falsely influence the results. Additionally, there are 11 symptom subscales included in the questionnaire. Four of these subscales, Impact of the event, Re-experience of the trauma, Avoidance and Numbing, and Increased Arousal, directly correspond to criteria A through D for the diagnosis of Post-traumatic stress disorder found in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV). The other symptom subscales are the following: Depression, Hopelessness, Somatic Symptoms, Oppositional Conduct, Hypervigilance, Dissociation and Dreams, and General Maladjustment. The MWES is found to be especially helpful in identifying PTSD in children.

The following are the different subscales:

Impact of the Event (4 items):

Items that demonstrate the impact that the event had on the subject.

Some examples are:

I got very nervous about things.

I had trouble falling asleep or staying asleep.

I couldn't sit still anymore

Re-experiencing the trauma (10 items):

Items that show that the person experienced the event again, through dreams, intrusive thoughts or flashbacks. (three of these items are shared with the dissociation/dreams subscale).

Some examples are:

I had trouble thinking because I kept remembering what happened.

I was afraid of any person who was like the person who hurt me.

Pictures of what happened popped into my mind.

Avoidance / Numbing (26 items):

Items that indicate if the victim avoided the place where the incident occurred, similar situations or anything that reminds them of the incident (sixteen of these items are shared with depression, two with somatic symptoms and two with oppositional conduct).

Some examples are:

I tried to stay away from the person who hurt me.

I hated going to school.

I couldn't talk about what happened.

Increased Arousal (21 items):

Items that show that the subject is particularly physically and/or psychologically aroused, both in terms of a limited attention span as well as increased irritability. (six of these items are shared with depression, six with hypervigilance, and six with oppositional conduct).

Some examples are:

I couldn't pay attention to things for long as I used to.

I couldn't control how I acted or felt.

I said mean things to people.

Depression (27 items):

Items that indicate if the subject feels sadness, distraction, loss of motivation, and negative feelings towards the future (six of these items are shared with increased arousal and sixteen with avoidance/numbing).

Some examples are:

I was not as happy as I used to be.

I cried when I thought about my worst experience.

I thought my life would never get better.

Hopelessness (12 items):

These items indicate self-blame, negative self-perception, and suicidal thoughts (three items are shared with avoidance).

Some examples are:

I thought I was the only one who was to blame.

I thought about killing myself.

I felt like a failure.

Somatic Symptoms (7 items) Items that indicate physical symptoms, such as headaches or stomachaches (two items are shared with avoidance/numbing).

Some examples are:

I was more tired than I used to be.

I got twitches in parts of my body.

I had headaches more often than not.

Oppositional Conduct (16 items)

Items that indicate conflictive behavior, especially with adults, drug and alcohol abuse, problems in school and with peers. (six of these items are shared with increased arousal and two with avoidance/numbing).

Some examples are:

I got into trouble at school.

Adults upset me more than before.

I did whatever I wanted even if people didn't like it.

Hypervigilance (14 items)

Items that indicate nervousness or anxiety, feelings of revenge and persecution (six of the items are shared with increased arousal).

Some examples are:

I got very nervous about things.

I thought about things I could do to get back at the person.

I felt like I had to watch everybody.

Dissociation and dreams (10 items):

Items that indicate dreams with negative content and memory loss (three of these items are shared with re-experiencing).

Some examples are:

I did things and later couldn't remember doing them.

I was afraid to be by myself.

I had dreams about things that I could never tell anybody.

General Maladjustment (16 items):

Items that indicate emotions and behaviors that do not fall into any of the other categories, such as fears or regression.

Some examples are:

I began to bite my nails.

I went to the bathroom in my pants.

I wished I were a little kid again.

For the purpose of this study, the scale was translated into Spanish by the present author, Kristin Ranf, who has a Certificate in translation from the Universidad de Valencia. The translated questionnaire was then submitted for review to the professors María José Baguena Puigcerver of the Universidad de Valencia and Concepción Yániz from the Universidad de Deusto. After some minor modifications based on their suggestions it was included in the questionnaire for use in this study.

The reliability analyses presented in the manual of this scale (Hyman and Snook, 2002) show that there is an internal consistency for the subscales that ranges from .68 to .91 and a Pearson exploration of test-retest reliability shows results ranging from .88 to .95. A study carried out by Ateah and Cohen (2009) supports the reliability of the scale with an internal consistency score of the whole scale of .97 and their validity analyses also showed that the scale measures what it was designed to.

The full instrument can be found in Appendix I, Section II of this thesis.

### 2.2.3. Adolescent Coping Scale

The ACS (*Adolescent Coping Scale*) questionnaire by E. Frydenberg and R. Lewis (1996) is a test developed to study coping mechanisms in adolescents from 12 to 18 years of age. The scale is made up of 80 items with a Likert like response option from 0 to 4 (0 = It never happens or I don't do it, 1 = It happens or I do it rarely, 2 = It happens or I do it sometimes, 3 = It happens or I do it often, and 4 = It happens or I do it frequently). The items ask the person about the frequency with which they use specific strategies to cope with a stressful situation. These strategies are grouped into 18 subscales. They are listed below with a brief description.

Social Support: Inclination to share problems with others and receive help and support to face them.

Focusing on solving the problem: Systematically confront the problem, thinking about it and keeping in mind different points of view and solution options.

Making an effort and being successful: This refers to work behaviors, laboriousness and personal implication.

Worry: Fear for the future in general terms, or more concretely, preoccupation for future happiness.

Invest in close friends: Effort to commit oneself to a close personal relationship and to make new friends.

Search for belonging: Preoccupation or interest in relationships with others in general and, more specifically, what others think of that person.

Have hope: Hoping that things work out, trust in hope and the expectation that things will end happily.

Lack of coping or no coping: Doing nothing, incapable of resolving the problem, feeling sick.

Tension reduction: Feeling better through actions that reduce tension, reduce pressure, cry, scream, evade.

Social action: Allowing others to know of the problem and trying to receive help by writing petitions, organizing activities or other similar ventures.

Ignore the problem: This is when one consciously refuses to acknowledge the existence of the problem.

Self-blame: One sees themselves as being responsible for the problems or worries that they have.

Keeping it to oneself: The person flees from others and doesn't want them to learn of their problems.

Search for spiritual help: This reflects the use of prayer and the belief that a leader, or a Creator, will help them.

Focusing on the positive: Attentively looking for the positive aspect of the situation. This includes seeing the good side of a problem and considering oneself fortunate.

Professional help: Asking the opinion of professionals, such as teachers, psychologists or other advisors.

Relaxing diversions: Includes enjoyable activities such as writing and painting.

Physical distraction: Includes exercise, sports and staying in good physical shape.

Factor analysis was carried out on the 80 items and three factors were recognized. Below is a brief description of each of the coping styles as well as a list of the coping



mechanisms included in each. A more detailed account of the analysis as well as the accompanying statistics can be found in the Results section of this paper.

The active-externalizing coping style is a way that some people have of dealing with problems that includes thoughtful reflection about the problem. The person examines the situation and reflects on possible ways to resolve it. They often look to friends for support and these relationships help them to feel better. They hope for a better future and make an effort to change their situation and better their lives in general. It includes the following coping mechanisms:

Social Support

Focusing on solving the problem

Making an effort and being successful

Worry

Invest in close friends

Search for belonging

Have hope

Focusing on the positive

Relaxing diversions

Physical distraction

Passive-internalizing coping is characterized by a lack of coping and a generalized denial of the situation. They tend to avoid thinking of the problem, distracting themselves with other things, and when they do think about it they often blame themselves. They don't usually share their thoughts and pain with others, preferring to keep it to themselves. The mechanisms that make up passive-internalizing coping are:

Lack of coping or no coping

Tension Reduction

Ignore the Problem

Self-blame

Keeping it to oneself

Seeking third party support or reference to others is a coping style that involves a uniquely qualified third party, such as a therapist or other authority figure, a religious figure, or an organized effort by a group of peers. It includes the coping mechanisms:

Social action

Search for spiritual help

Professional help

The full questionnaire can be found in Appendix I, Section III of this thesis.

The ACS manual (Frydenberg and Lewis, 2000) tested the reliability of the scale through test-retest correlations, finding that all of the items fulfill the stability requirements. The 18 subscales were found to have solid construct validity and factor analysis supported the dimensions specified in the scale.

#### 2.2.4. Eysenck Personality Questionnaire - Junior

*Eysenck Personality Questionnaire - Junior* (EPQ-J) by H.J. Eysenck and S.B.G. Eysenck (1975). The instrument consists of 81 items with YES / NO response alternatives, which evaluate the general dimensions of Eysenck's model (neuroticism, extraversion-introversion and psychoticism) and the lie scale (L). For the purposes of this study we used the Spanish adaptation of the scale carried out by the Sección de Estudios de TEA Ediciones in 1989. This version of the Eysenck Personality Questionnaire was specifically formulated for children between the ages of 8 and 15 years old. The adaptation process of the Spanish version has been documented and shows a high degree of correlation with the results of the English version for both girls and boys (for the Spanish version girls neuroticism scores were .989, boys .986; girls extraversion scores .975, boys .984) (Eysenck and Eysenck, 1985). This shows that in the adaptation from the original into Spanish none of the measurement ability was lost. It is also important to note that there is absolutely no correlation between the Neuroticism and Extraversion scales, as both girls and boys had a coefficient of -0.09. This means that the two scales measure entirely independent personality traits. The questionnaire was

found to be reliable and valid in both its English and Spanish versions. Caruso and Edwards (2001) also found that both the neuroticism and extraversion subscales were proven to be reliable with coefficients of .80 and .73, respectively.

In this study, we only used the Neuroticism (N) and Extraversion-Introversion (E) scales of the questionnaire, which consist of 44 questions with YES / NO response options, having eliminated the Lie and Psychoticism scales. In the introduction to this thesis, there is a more extensive definition of the two personality characteristics studied here and, therefore, we will not go into greater detail at this time.

Neuroticism (N), or emotional instability, is accompanied by a low tolerance towards stress, that being physical, as in painful situations, or psychological, as in conflictive or frustrating situations.

Examples of items used to evaluate Neuroticism are:

Does your mood change easily?

When you finish something, do you often feel that you could have done better?

Do you worry too long after an embarrassing experience?

The dimension of introversion-extraversion (E-I), has different repercussions in the area of interpersonal relationships.

Examples of items used to evaluate Extraversion-Introversion are:

Do you usually respond quickly when people talk to you?

Do you have many friends?

Do you like to do things that are a little scary?

The full questionnaire can be found in Appendix I, Section IV of this thesis.

The manual of the EPQ-J scale presents levels of reliability and validity that show that this instrument is useful for measuring neuroticism and extraversion in English and Spanish student populations. For the English students, in females ( $n = 341$ ) the test-retest reliability (using an interval of one month between the tests) was 0.79 for neuroticism and .78 for extraversion. The same results for males ( $n = 190$ ) were .75 and

.78 respectively. With Spanish students, the translated version showed similar results: for girls ( $n = 1002$ ) neuroticism had an alpha coefficient of .77 and extraversion was .69. Boys ( $n = 976$ ) showed similar levels at .78 for neuroticism and .67 for extraversion. The authors intercorrelated the two scales and found that the relationship between them was small and negative (-.19 for boys and -.14 for girls). Inglés, Méndez and Hidalgo (2001) found similar levels of reliability (from .61 to .88) and their validity analyses, through correlations with other scales measuring similar items, were also favorable. Alexopolous and Kalaitzidis (2004) found in Greek students that both concurrent and construct validity of the scale was good.

### 2.3. Procedure followed in the study

The application of the instruments was carried out by the author with the collaboration of teachers of the three schools in a classroom situation. The students were informed that they were participating in a study whose basic goal was to study the experiences that people have in school and how these experiences affect them. They were also told that their participation was completely voluntary, that it would not affect their grade in any way, and that any information gathered in the questionnaire was strictly confidential. Then the questionnaires were given to the students in the following order: The SATS, the MWES, the ACS and the EPQ-J (only the items pertaining to the neuroticism and extraversion-introversion subscales). Regarding the SATS and MWES, the subjects were told that it was a test composed of different sections and they should read the instructions of each carefully. They were instructed to fill out the MWES scale thinking of their emotions and behaviors from the time when they started having problems at school, if they did. They were also given instructions on how to fill out the questionnaire orally and there was a brief period of questions and answers to that effect when necessary. They were told to ask questions throughout the course of the hour if there was anything they didn't understand. Additionally, they were told that they would find two more conventional questionnaires and that they should read the instructions for each. The average time spent filling out the questionnaires was 55 minutes, the minimum time spent being 40 minutes and the maximum one hour and ten minutes. The tests were applied in this manner during the 2006-2007 and 2007-2008 academic years.

There were several factors that made data collection difficult for this study. The schools included here have a much higher than average rate of absenteeism, with as many as a third of the students in the classrooms visited absent on any given day. This led to two main complications. The first was that there were much fewer subjects than anticipated in the first round of questionnaires in 2006-2007. This led to a second round of questionnaires given in the 2007-2008 academic year. Additionally, the high rate of absenteeism leads to a classroom environment that is less structured and more problematic. Given the relatively undisciplined classroom environment in a small portion of some of these groups, concentration was made difficult, not allowing for some of the students to complete their questionnaires.

In some cases the absenteeism was chronic, with children leaving school for months or years at a time. This hindered the acquisition of basic skills such as vocabulary building and reading. These extreme cases were very few, and when it was clear that the subject could not read or fully understand the questions, their information was discarded.

There were two sections that some students failed to answer. This will make it difficult to study certain aspects of the questionnaire. One of these was the perpetrator of each event. Some students forgot to check the boxes. Nevertheless, given the nature of the questions it is generally quite clear who the perpetrator was, and the questions were separated into the three types of peer inflicted aggression (verbal, physical and indirect) and punishment (inflicted by teachers or other school staff) without difficulty.

Another section was marking their worst experience. Some students failed to do this and answer the questions following it. Additionally, the impression was given that many of the children did not answer the questions of the SATS symptomatology thinking of that event but of all of their negative school experiences. Many of the subjects found it difficult to think of a worst experience (because they hadn't had bad experiences) or choosing just one (because they had had many). As a result of these problems with that item, the analyses involving the worst experiences of the subject will be quite limited and instead more emphasis will be placed on all of the events experienced as well as the types of events.

## 2.4. Statistical analyses carried out in the study

In order to test the hypotheses presented above we will carry out a series of different statistical analyses. These are the following:

- **Reliability:** Chronbach's Alpha will be used to determine the reliability of all of the scales. This reliability will be checked for the total sample that completed each questionnaire as well as for boys and girls separately.
- **Frequencies:** Frequencies and means will be computed for the demographic variables of gender, age and immigrant status as well as for the items of the SATS scale (the aggressive events).
- **Factor Analysis:** The ACS coping scale will be subjected to factor analysis with varimax rotation in order to determine the coping mechanisms that make up the coping styles.
- **Correlations:** All of the bullying types, symptom scales, coping styles and personality and demographic variables will be intercorrelated to study the relationship between them.
- **Student T-tests:** Independent samples t-tests will be carried out with groups based on demographic variables (gender, age and immigrant status) and the groups will be compared to study the differences with symptoms, victimization, personality and coping styles. Then, groups will be formed based on high and low levels of the following: victimization, neuroticism, extraversion, exteriorizing coping, interiorizing coping, and reference to others. These groups will be compared on psychological symptom scales, victimization, personality variables and coping styles (where appropriate) in order to study all of the possible differences between a number of different groups.
- **Regression:** Regression analyses will be used to determine the factors that

predict the presence of psychological symptoms.

- **Multiple Mediation:** A multiple mediation macro will be applied to the data in order to determine the variables that mediate in the relationship between the independent (victimization) and dependent (psychological) variables. This analysis will allow us to quantify the effect that the mediating variables have on this relationship. The potentially mediating variables to be studied are: neuroticism, introversion, exteriorizing, interiorizing, and reference to others.

## CHAPTER THREE: RESULTS

This chapter is composed of seven different sections of results obtained in this research project with respect to school aggression and bullying, psychological symptoms and personality characteristics in accordance with the objectives and hypotheses presented in chapter one. We will also be studying different sociodemographic variables that may influence the way students experience aggression and its consequences.

### 3.1. Internal consistency of the scales: Chronbach's Alpha

The first step that needs to be taken when studying the results of statistical analyses is to consider if the scales used for the research are reliable for this purpose, that is, if they consistently measure what they were designed to. In order to verify this before we continue with the analyses, we have used Chronbach's Alpha to determine the reliability of the four different scales used in this study: the scale that measures victimization (SATS), psychological symptoms (MWES), coping (ACS) and personality (EPQ-J). The results of the reliability analyses of the scales are shown in Table 3. The subjects used (n) are the sub-sample that filled out the entire questionnaire. The subjects contemplated in each of the analyses were those that completed every item of the scale indicated. There were some subjects that missed one or more of the items and, as a result, were not included in the reliability analyses. For this reason there is some variability in the number of subjects taken into consideration. As a result, the number of subjects used in each analysis will be shown in parentheses in each cell of the table.



Table 3. Reliability of the Scales.

|           | Total<br>(n) | Boys<br>(n) | Girls<br>(n) | Spanish<br>(n) | Immigrant<br>(n) |
|-----------|--------------|-------------|--------------|----------------|------------------|
| MWES      | .94 (395)    | .94 (207)   | .93 (198)    | .93 (312)      | .95 (83)         |
| SATS      | .98 (317)    | .97 (166)   | .98 (151)    | .97 (249)      | .98 (66)         |
| ACS       | .97 (190)    | .97 (97)    | .96 (93)     | .97 (140)      | .97 (50)         |
| EPQ-J (N) | .82 (417)    | .82 (214)   | .82 (203)    | .82 (326)      | .82 (89)         |
| EPQ-J (E) | .76 (403)    | .78 (208)   | .73 (195)    | .76 (313)      | .74 (87)         |

The results of these analyses show the following:

- a) Generally speaking, these indices of reliability are very good for all groups: the total sample, men and women, and immigrants and Spanish nationals, with the results for My Worst Experience Scale being slightly lower than the SATS and ACS. There is a lower level of reliability in the alpha values for the EPQ-J, for both the neuroticism and extraversion subscales. However, the reliability coefficients of these scales are significant. We can conclude that all of the scales are reliable, and therefore the following analyses can be carried out using this data.

In table 4 we show the indices of reliability for the symptom scales in the MWES.

Table 4. Reliability of Symptom Scales

| Scale                 | Chronbach's Alpha |             |              |             |                  |
|-----------------------|-------------------|-------------|--------------|-------------|------------------|
|                       | Total<br>(n)      | Boys<br>(n) | Girls<br>(n) | Spanish (n) | Immigrant<br>(n) |
| Depression            | .95 (431)         | .93 (225)   | .95 (206)    | .95 (342)   | .94 (87)         |
| Dissociation/Dreams   | .82 (473)         | .83 (244)   | .81 (229)    | .82 (370)   | .83 (101)        |
| General Maladjustment | .73 (457)         | .75 (240)   | .70 (217)    | .74 (360)   | .69 (95)         |
| Hopelessness          | .86 (466)         | .84 (245)   | .87 (221)    | .86 (364)   | .87 (100)        |
| Hypervigilance        | .87 (454)         | .84 (228)   | .88 (226)    | .87 (356)   | .85 (96)         |
| Oppositional Conduct  | .89 (451)         | .90 (230)   | .88 (221)    | .89 (350)   | .90 (99)         |
| Somatic Symptoms      | .78 (470)         | .69 (240)   | .81 (230)    | .77 (367)   | .80 (101)        |
| Avoidance             | .92 (435)         | .89 (229)   | .93 (206)    | .92 (340)   | .92 (93)         |
| Impact                | .73 (488)         | .68 (251)   | .76 (237)    | .72 (382)   | .73 (104)        |
| Increased Arousal     | .91 (449)         | .90 (231)   | .91 (218)    | .91 (352)   | .90 (95)         |
| Reexperiencing        | .84 (470)         | .81 (244)   | .86 (226)    | .84 (372)   | .83 (96)         |

- b) In Table 2 we can observe a wide range of results, most of them quite high, for the total sample, from .73 (general maladjustment and impact) to .95 (depression). The scales with the highest reliability for the entire sample were depression (.95),

avoidance (.92) and increased arousal (.91), and the lowest were general maladjustment (.73), impact (.73) and somatic symptoms (.78). The girls show a generally higher level than boys on almost all of the scales. For boys, the most reliable scales were: Depression (.93), oppositional conduct (.90) and increased arousal (.90). The least reliable, although still quite high, were: Impact (.68), somatic symptoms (.69) and general maladjustment (.75). For girls the most reliable were also depression, avoidance and increased arousal (.95, .93 and .91, respectively). The least reliable scales for girls were general maladjustment (.70), impact (.76), dissociation/dreams and somatic symptoms (both .81). As can be seen, the least reliable scales are the same as those for the boys but in a different order and are generally lower for boys than for girls. Overall, however, the reliability for all of the scales (with the exception of general maladjustment) is quite good. The reliability scores are virtually the same for Spaniards and immigrants. The general maladjustment scale is a grouping of items that do not fit into the other symptom scales and that are not very similar to one another, so the lower reliability is to be expected. As for the lower scores for the impact subscale, the scale is composed of only four items, making it difficult to test the reliability.

### 3.2. Bullying and aggression in schools

In this second section of results we will focus on the data that corresponds to the first objective of this research, studying the aggressive acts and types of aggression experienced by students in their school, comparing groups of students. These groups are formed based on sex, age and immigrant status. These analyses correspond to the first objective of this research. The MWES scale, composed of 57 items, has questions pertaining to four different types of aggression: verbal, physical, indirect and punishment (which, depending on the question can be considered aggression performed by a teacher or basic disciplinary procedures). These items are varied and include events that are more or less common, and that vary in severity. The following analyses study the differences between groups on each of the items, in order to study which events are more frequent among each group and observe if there are disparities between any of the groups studied.

### 3.2.1. Aggressive acts: Differences between boys and girls

In table 5, which can be found in Appendix II.I, the means and standard deviations for all of the events of the SATS were computed, as well as the number of people that responded affirmatively to each of the items. Then the means and standard deviations of each gender were calculated and a Student t-test was carried out to find the differences between sexes. For these analyses, the whole sample (n=518) was used. We will discuss these results together by taking into account the most common events experienced and the most significant differences between groups. These results correspond to hypothesis 1.1. We expect to find, based on the literature cited in the introduction items related to physical aggression to be higher in boys, those involving indirect aggression to be more frequent in girls, punishment to be slightly higher in boys and little difference to be found between the two groups for verbal aggression.

- a) The events that were reported with the most frequency were items involving verbal abuse or punishment by teachers. The most common, reported by 69.9% of the subjects was Item 10 (“I was not allowed to go to the bathroom”, which, in itself, is not necessarily an act of punishment) with a mean of 1.57. Item 6, (“I was punished”) basically including every act used in the school system, was reported affirmatively by 60.2% of the sample, with a mean of 1.41. More boys were given punishment than girls (with a t-score of 2.38,  $p < .05$ ). Another frequent item, reported by 68.9% of the subjects, was Item 2 (“I was yelled at”), the total sample reporting a mean of 1.39. This item was reported equally by boys and girls and could be inflicted by teachers or other students. Another form of punishment commonly cited was item 54, “Someone punished me unfairly” (65.2% of the subjects responding affirmatively, with a mean of 1.25). It was found to occur more frequently in boys than girls, with a t-score of 2.56 ( $p < .05$ ). The most frequently reported items of student aggression, were Item 1 (“I was teased”) was reported by 62.7% of the subjects, with a mean of 1.22, virtually identical in boys and girls. This is followed by Item 55 (“I was in a fight”), a type of physical conflict, was reported by 58.0% of all subjects

(with a mean of 1.09) and was found to occur much more frequently among boys ( $t = 3.28, p < .001$ ).

- b) Of the events that were reported with less frequency, there are other important differences between boys and girls. The most important of these differences involve punishment, physical and indirect aggression. The most important difference of all involves Item 22 (“Other students stopped talking to me”). This was reported much more frequently among girls with a  $t$ -value of  $-6.85$  ( $p < .001$ ). Another indirect item showing an important divergence is item 23 (“Someone got others not to like me”), girls citing it more often ( $t = -3.24, p < .01$ ).
- c) Items involving physical abuse showed more incidence of this type of aggression in boys. The clearest difference is found in item 32 (“I was punched”) with a  $t$ -value of  $4.86$  ( $p < .001$ ). This is followed by item 42 (“Someone took out a gun, knife or other weapon”) It must be noted that this is a threat that may not necessarily be directed at the victim, but at a third person, and the subject could be involved as a witness. This item had a  $t$ -value of  $4.40$  ( $p < .001$ ). Surprisingly, the next physical aggression item with a significant difference was item 30 (“I was touched sexually”), which was cited more by boys, with a  $t$ -value of  $3.60$  ( $p < .001$ ). It is important to note here that these three items are not particularly common, with means of  $.30$ ,  $.17$  and  $.24$  and affirmative responses of  $17.0\%$ ,  $11.8\%$  and  $11.7\%$ , respectively.
- d) The largest differences between the sexes in terms of punishment were the most extreme institutional forms of punishing a student, and both were significantly higher in boys. Item 7 (“I was expelled from class”) has a  $t$ -value of  $3.76$  ( $p < .001$ ) while item 8 (“I was expelled from school”), which may have been interpreted by some as being suspended, due to the relatively high affirmative responses ( $11.6\%$ ) is also cited more by boys with a  $t$ -value of  $3.09$  ( $p < .01$ ).

In table 5, many more significant differences between boys and girls can be seen. Above, the largest differences have been commented. Additionally, it is important to consider those variables reported by very few students, and the nature of these actions.

- e) There were some events in the SATS that were reported very infrequently. Among them are the more severe physical or sexual acts, or extreme forms of punishment. Item 36 (“I was strip-searched”) was the least common, cited by 1.4%, followed by Item 33 (“I was forced to have sex”), reported by 1.6%, and Item 35 (“I was tied up”), by 1.9%. Slightly higher were Items 44 (“I was hurt so badly that I had to go to the hospital”) at 4.7% and 12 (“I was beaten up”) at 5.7%.

### 3.2.2. Aggressive acts: Differences between groups based on immigrant status

In this section, we will study the reporting of aggressive events by groups based on immigration status. For these analyses, means, standard deviations and student t-tests are used. The results below indicate the only items that showed significant differences and do not represent the types of aggression as a whole, which will be studied in the further along in this section.

Table 6, found in Appendix II.II., shows the results from the Student t-test analyses for groups based on immigrant status. In hypothesis 1.3, we expected overall similar levels of aggression with some possible differences in items of verbal aggression.

- a) The clearest difference between the two groups involves Item 56 (“Someone made fun of me because of my race”) with a t-value of -9.19 ( $p < .001$ ). Given that the large majority of Spanish nationals are of the same race, it is to be expected that they not suffer these kinds of insults. There was a small incidence of affirmative responses among the Spaniards, which could be explained by Spaniards with relatives of another race or gypsies, which is considered a different ethnicity. Apart from those two exceptions, it is quite clear that there would be a difference between the two groups.

- b) There were some items of physical aggression that showed significant results, all of them more frequent in Spanish nationals. Item 24 (“I was tripped”,  $t = 3.42$ ,  $p < .001$ ), Item 15 (“I was pushed”,  $t = 2.16$ ,  $p < .01$ ) and Item 18 (“I had my ear or hair pulled”,  $t = 2.09$ ,  $p < .01$ ) were all found to be more common among Spaniards. However, the threat of physical harm, Item 4 (“Someone threatened to do something bad to me or hit someone I care about.”,  $t = -2.62$ ,  $p < .01$ ), was more often reported by immigrants.
- c) There were also some significant differences between immigrants and Spanish nationals for punishment, Spaniards reporting significantly more incidence for several different items. These items were, Item 6 (“I was punished”,  $t = 4.29$ ,  $p < .001$ ), Item 54 (“Someone punished me unfairly”,  $t = 3.20$ ,  $p < .001$ ) and Item 7 (“I was expelled from class”,  $t = 2.89$ ,  $p < .01$ ).

### 3.2.3. Aggressive acts: Differences between groups based on age

Table 7, found in Appendix II.III., reflects the differences between younger and older students. In accordance with hypothesis 1.2. we expect to find some differences related to all types of aggression, younger students reporting slightly more verbal and physical aggression and older children reporting slightly more indirect and punishment.

The results shown in table 7 reflect few significant differences between groups based on age. These differences, however, are quite telling.

- a) There were only two items related to verbal aggression that showed significant differences. Item 1 (“I was teased”) was reported more by younger students ( $t = 2.25$ ,  $p < .05$ ) as was Item 46 (“Someone said bad things about my mother or family”), with a  $t$  value of 2.22 ( $p < .05$ ). These types of aggression require less thought and maturity, and are relatively common forms of banter among young children.

- b) The results for physical aggression, or threats, were quite telling in the nature of the acts. More simple and irreflexive acts, such as Item 24 (“I was tripped”,  $t = 2.56, p < .05$ ) and Item 19 (“I was hit with a ruler, paddle, or something else”,  $t = 2.18, p < .05$ ) were found to be more common in younger children, while more severe and thought out acts and threats were more common in older children. In this case here however, instead of being direct victims of aggression, older children were more often witnesses of severe acts of aggression, such as Item 52 (“I saw someone be threatened with a gun, knife or other weapon,”  $t = -3.43, p < .001$ ), Item 43 (“I saw someone get badly hurt or killed,”  $t = -2.97, p < .01$ ) and Item 53 (“Someone said there was a bomb in the school and we had to leave,”  $t = -3.26, p < .01$ ).
- c) There were no significant differences between the two groups for items related to indirect aggression.
- d) There was only one act of punishment that demonstrated a difference between the two groups. Item 7 (“I was expelled from class”) was found to occur significantly more often in older children ( $t = -2.74, p < .01$ ). Younger children are usually not punished with this measure.

#### 3.2.4. Most common acts of aggression according to their type: Differences between groups

In this section, taking into account the data already presented in table 5 as well as the percentages of affirmative responses, the four most common events of each type of aggression are displayed for the total sample as well as for groups based on gender, immigrant status and age. Since there are items that are quite common and others that are not reported by hardly anybody, it is important to consider the most common events separately, as these are the most representative of the day to day school experience. The values found in the tables correspond to the percentage of subjects that responded affirmatively (once, sometimes, many times or all the time) to the indicated item. The difference with the previous analyses presented in Tables 5, 6 and 7, is that instead of comparing the means of the items with significant  $t$  levels, here, we will be considering

the levels of affirmative responses of the four most frequently cited items of each of the types of aggression. Those items that had the highest frequency of affirmative responses for the entire sample were, generally speaking, also the most frequently cited by the groups, although to a different extent.

Table 8. Most commonly cited verbally aggressive acts. Values correspond to percentage of subjects that responded affirmatively.

| Item   | Total | Boys  | Girls | Span. | Immig. | Young | Older |
|--|-------|-------|-------|-------|--------|-------|-------|
| 2. I was yelled at.                                | 68.9% | 66.9% | 71.0% | 68.6% | 70.8%  | 67.5% | 59.6% |
| 1. I was made fun of.                              | 62.7% | 62.5% | 62.9% | 64.1% | 58.4%  | 67.8% | 70.2% |
| 3. I was embarrassed.                              | 49.6% | 47.3% | 52.1% | 49.4% | 50.0%  | 47.3% | 51.2% |
| 46. Someone said bad things about me or my family. | 43.8% | 47.1% | 40.2% | 43.5% | 46.0%  | 47.5% | 41.4% |

The above table represents the percentage of students that reported the different acts of verbal aggression as occurring at least once. As such, these are not considered to be acts of bullying. These four items are shown to be particularly common for the entire sample and among the four established groups. Most of the subjects reported being yelled at, and there was little difference between groups, although younger students were more often yelled at than older students. There was also little difference among groups in the high incidence of being made fun of and being embarrassed. Boys reported more frequently than girls that someone had said something bad about them or their family, while immigrants reported it more frequently than Spaniards and younger students more than older students.

Table 9. Most commonly cited physically aggressive acts. Values correspond to percentage of subjects that responded affirmatively.

| Item  | Total | Boys  | Girls | Span. | Immig. | Young | Older |
|---|-------|-------|-------|-------|--------|-------|-------|
| 55. I was in a fight.                                     | 58.0% | 65.6% | 49.6% | 59.9% | 50.9%  | 56.9% | 58.7% |
| 15. I was pushed.   | 50.4% | 53.9% | 46.5% | 51.9% | 46.4%  | 54.5% | 47.7% |
| 11. Someone threw a book, eraser or something else at me. | 44.9% | 46.3% | 41.2% | 45.2% | 40.2%  | 42.0% | 45.0% |
| 24. I was tripped.  | 40.8% | 43.9% | 37.4% | 44.5% | 26.8%  | 48.8% | 35.7% |

The most common act of physical aggression was shown to be fighting, particularly high in males (16% more than in females) and more common in Spaniards than immigrants. The nature and gravity of the fights is unknown, making this item difficult to interpret. The item was intended to ask about physical altercations, however, it is



possible that it was interpreted by some to include verbal altercations. The next two items cited were “I was pushed” and “Someone threw a book, eraser or something else at me.” We see a similar trend here, the items being more often cited by boys than girls and more among Spaniards, but to a lesser degree. The fourth most frequent act is “I was tripped.” The most significant difference between groups was between Spaniards and immigrants, with practically 18% more Spaniards reporting being tripped. Younger students were pushed and tripped more often than their older peers.

Table 10. Most commonly cited indirect aggressive acts. Values correspond to percentage of subjects that responded affirmatively.

| Item  | Total | Boys  | Girls | Span. | Immig. | Young | Older |
|---|-------|-------|-------|-------|--------|-------|-------|
| 26. Someone lied about me and caused me problems.     | 45.8% | 43.2% | 48.8% | 47.8% | 48.9%  | 41.1% | 48.9% |
| 22. Other students stopped talking to me.             | 36.6% | 23.0% | 51.4% | 36.7% | 36.0%  | 44.7% | 37.8% |
| 40. Someone invented a story about me.                | 31.6% | 25.7% | 38.2% | 30.1% | 37.0%  | 27.3% | 34.4% |
| 23. Someone did something so others wouldn't like me. | 30.9% | 23.3% | 38.8% | 30.2% | 32.3%  | 30.0% | 31.4% |

The above table shows a particularly large difference in responses between boys and girls, with more girls responding affirmatively to all four items. This contrast is most noticeable for “other students stopped talking to me,” but was also quite evident for “someone did something so others wouldn't like me” and “someone invented a story about me.” The item most frequently cited by the total sample “some one lied about me and caused me problems” showed little difference between any of the groups. Overall, there was very little divergence between Spaniards and immigrants on these items; the only moderate difference was that more immigrants responded affirmatively to “Someone invented a story about me.” Older students reported more that somebody lied or told a story about them, while younger students manifested more often than their peers stopped talking to them.

Table 11. Most commonly cited forms of punishment. Values correspond to percentage of subjects that responded affirmatively.

| Item  | Total | Boys  | Girls | Span. | Immig. | Young | Older |
|---|-------|-------|-------|-------|--------|-------|-------|
| 10. I wasn't allowed to go to the restroom. | 69.9% | 68.0% | 72.0% | 71.6% | 62.8%  | 71.9% | 68.6% |
| 6. I was punished.                          | 68.1% | 68.7% | 67.5% | 73.4% | 49.1%  | 70.6% | 66.5% |
| 54. I was unfairly punished                 | 65.2% | 65.4% | 64.9% | 69.2% | 51.8%  | 64.0% | 65.9% |
| 7. I was expelled from class.               | 60.2% | 66.2% | 53.5% | 64.2% | 47.7%  | 55.1% | 63.5% |

Although overall, in other analyses, boys showed significantly higher levels of punishment than girls, for three of the four most cited events the results were very similar. The only important difference between the two groups was that more boys reported being expelled from class. Spaniards and immigrants did show important discrepancies in all of these items, particularly in being punished (24.3% more Spaniards reported it) and being expelled from class (with a 16.5% difference). The results were very similar for both age groups; however, more students in the older group reported being expelled from class at least once.

### 3.2.5. Types and incidence of aggression and bullying: Differences between groups based on gender, immigrant status and age

In this section of results, we will observe the different types of aggression as a whole inflicted on the subjects studied here. Additionally, the differences between boys and girls, Spanish students and immigrants and younger and older students will be examined in order to determine if any of these groups suffer more than others a specific type of aggression. The incidence of different types of bullying in these six groups will also be contemplated in order to analyze the differences between levels of the various types of severe bullying among these four groups. Means analyses and student t-tests were used for the purposes of determining if these differences exist and, if so, their magnitude. The first analysis carried out, shown below in table 12, were to determine any divergence between the boys and girls that participated in the study. Here, the subscales of the types of aggression were used as a whole, including all of the items that were exclusive of each type of aggression, in this process items that involved witnessing acts were not included.

Additionally, before commenting on the results, the process followed should be explained in order to understand the difference between “verbal” and “verbal bullying,” for example. In the table shown below, the first four lines correspond to general levels of specific types of aggression, using the total points on the likert-like frequency scale from 0 to 4. The latter four lines correspond to higher incidences of aggressive acts, that is, more severe bullying. In the process of analyzing the data all 57 of the items of

the scale were recoded into two levels (instead of the five likert-like responses normally used). If the act occurred “not at all”, “once” or “sometimes” it was coded as a 0, while a 1 was used for “many times” and “all of the time”. In this way, there is a clearer differentiation between those who were bullied and those who were victims of little or no aggression. Those students with a score of 0 for an item such as “I was teased”, were either not subjected to that aggression or it occurred infrequently, while those who had a 1 were deemed to be verbally bullied in that way. The variables shown in these tables reflect the types of bullying directly suffered by the students, omitting those items where the subject was considered a witness to aggression. In tables 12, 13 and 14 the differences for overall aggression and level of bullying are shown for groups formed based on gender, immigrant status and age.

Table 12 illustrates the differences between boys and girls for types of aggression and bullying, using means analyses and student t-tests.

Table 12. Differences between boys and girls for types of aggression and severe bullying: (n = 518)

| Scale             | Girls (n = 246) |      | Boys (n = 272) |      | T - score |
|-------------------|-----------------|------|----------------|------|-----------|
|                   | Mean            | SD   | Mean           | SD   |           |
| Verbal            | .65             | .54  | .65            | .57  | .14       |
| Physical          | .33             | .39  | .42            | .47  | -2.38*    |
| Indirect          | .48             | .54  | .38            | .52  | 2.16*     |
| Punishment        | .62             | .45  | .76            | .55  | -2.98**   |
| Verbal bullying   | .65             | 1.29 | .75            | 1.39 | .84       |
| Physical bullying | .59             | 1.65 | .84            | 2.00 | -1.54     |
| Indirect bullying | .56             | 1.45 | .43            | 1.20 | 1.11      |
| Severe punish     | .63             | 1.20 | .98            | 1.39 | -3.27**   |
| Total events      | .48             | .37  | .51            | .43  | -.90      |

\*=  $p < .05$ , \*\*=  $p < .01$

There are several significant differences between boys and girls with regards to the types of aggression that they are subjected to. These variations correspond to the hypotheses put forth in chapter one of this paper. There is virtually no difference between the two groups for direct verbal aggression ( $t = .14$ ) or bullying ( $t = .84$ ). There were slightly more boys bullied in this way. Physical aggression was found to be significantly higher in boys ( $t = -2.38$ ,  $p < .05$ ) and, while there were more boys that were physically bullied ( $t = -1.54$ ), it does not reach a significant level. Indirect aggression was significantly higher among girls ( $t = 2.16$ ,  $p < .05$ ) and though this trend is maintained

with the incidence of bullying, the difference is not significant ( $t = 1.11$ ). As for punishment, boys were punished significantly more than girls ( $t = -2.98$ ,  $p < .01$ ) and there are also more boys that are consistently punished ( $t = -3.27$ ,  $p < .01$ ). In general, taking into account all of the items of the scale, boys tend to suffer slightly more aggressive acts ( $t = -.90$ ). These results, particularly the gender differences that exist for physical and indirect aggression, as well as the lack of contrast in verbal aggression, correspond with the results put forth in the existing literature. However, the differences for punishment were greater than anticipated, global punishment being more common and consistent for boys.

Table 13, shown below, demonstrates these same results for Spaniards and immigrants.

Table 13. Differences between Spaniards and immigrants for types of bullying and severe bullying. ( $n = 515$ )

| Scale             | Spanish<br>( $n = 402$ ) |      | Immigrant<br>( $n = 113$ ) |      | T - score |
|-------------------|--------------------------|------|----------------------------|------|-----------|
|                   | Mean                     | SD   | Mean                       | SD   |           |
| Verbal            | .64                      | .55  | .68                        | .58  | -.72      |
| Physical          | .40                      | .44  | .31                        | .41  | 2.06*     |
| Indirect          | .44                      | .55  | .41                        | .44  | .59       |
| Punishment        | .74                      | .52  | .53                        | .45  | 4.21**    |
| Verbal bullying   | .67                      | 1.34 | .79                        | 1.36 | -.78      |
| Physical bullying | .78                      | 1.85 | .54                        | 1.85 | 1.19      |
| Indirect bullying | .53                      | 1.42 | .36                        | .95  | 1.21      |
| Severe punish     | .89                      | 1.31 | .55                        | .98  | 2.52*     |
| Total events      | .51                      | .41  | .44                        | .37  | 1.57      |

Significance: \* =  $p < .05$ , \*\* =  $p < .01$

The differences between immigrants and Spanish nationals are few. Immigrants suffer slightly more verbal aggression ( $t = -.72$ ) and bullying ( $t = -.78$ ), as hypothesized in chapter one. However, this difference is far from significant. Physical aggression was significantly more common in Spaniards ( $t = 2.06$ ,  $p < .05$ ) but physical bullying shows a smaller difference between groups ( $t = 1.19$ ). Indirect aggression showed little divergence ( $t = .59$ ), however there was slightly more indirect bullying among Spaniards ( $t = 1.21$ ). The most significant difference between the two groups was found to be punishment. More Spaniards were punished than immigrants ( $t = 4.21$ ,  $p < .01$ ) and this punishment was also more frequent ( $t = 2.52$ ,  $p < .05$ .) In general, Spaniards reported

more aggressive events than immigrants, but this difference was not shown to be significant ( $t = 1.57$ ).

Below, table 14 compares the incidence of aggression and bullying for younger (ages 11 to 14) and older (ages 15 to 19) students.

Table 14. Differences between younger and older students for types of bullying and severe bullying.( $n = 518$ )

| Scale             | Younger Students<br>( $n = 203$ ) |      | Older Students<br>( $n = 315$ ) |      | T - score |
|-------------------|-----------------------------------|------|---------------------------------|------|-----------|
|                   | Mean                              | SD   | Mean                            | SD   |           |
| Verbal            | .70                               | .59  | .62                             | .53  | 1.57      |
| Physical          | .41                               | .45  | .36                             | .42  | 1.37      |
| Indirect          | .42                               | .56  | .43                             | .51  | -.25      |
| Punishment        | .70                               | .48  | .69                             | .53  | .10       |
| Verbal bullying   | .82                               | 1.45 | .62                             | 1.26 | 1.65      |
| Physical bullying | .83                               | 1.86 | .65                             | 1.84 | 1.09      |
| Indirect bullying | .54                               | 1.47 | .46                             | 1.23 | .66       |
| Severe punish     | .84                               | 1.20 | .80                             | 1.28 | .31       |
| Total events      | 4.97                              | 4.03 | 4.89                            | 4.02 | .23       |

Significance: \* =  $p < .05$ , \*\* =  $p < .01$

There are no significant differences between younger and older students for types of aggression or bullying. That said, the results show a general trend of younger students reporting more overall aggression, particularly verbal ( $t = 1.57$ ) and physical ( $t = 1.37$ ) types. The same is noticed for these types of bullying. Indirect aggression is slightly higher for older students ( $t = -.25$ ) while indirect bullying is more elevated in younger students ( $t = .66$ ). There is no difference between the groups for punishment or total events suffered. These results correspond with the hypotheses put forth in chapter one of this paper, that is, that the level of aggression, generally speaking, would decrease with age, with the possible exception of indirect aggression. However, these results, as they are not significant in any case, cannot be extrapolated to the general population, and should be considered only as tendencies.

### 3.2.6. Correlations between types of aggression and psychological symptoms

Correlation analyses were carried out to identify and quantify the relationships that exist between variables. Here, the variables studied were the types of aggression, not to be confused with bullying, psychological symptoms and personality variables (including neuroticism, extraversion and the three coping styles).

Table 15. Correlation coefficients between types of punishment and psychological symptoms. (n = 507)

|                       | Verbal | Physical | Indirect | Punishment |
|-----------------------|--------|----------|----------|------------|
| Depression            | .56**  | .49**    | .57**    | .36**      |
| Dissociation/Dreams   | .54**  | .52**    | .51**    | .40**      |
| General Maladjustment | .50**  | .51**    | .50**    | .39**      |
| Hopelessness          | .48**  | .44**    | .50**    | .39**      |
| Hypervigilance        | .55**  | .49**    | .59**    | .36**      |
| Oppositional Conduct  | .46**  | .46**    | .41**    | .57**      |
| Somatic Symptoms      | .43**  | .41**    | .44**    | .35**      |
| Avoidance             | .56**  | .50**    | .51**    | .44**      |
| Impact                | .48**  | .43**    | .47**    | .38**      |
| Increased Arousal     | .54**  | .49**    | .51**    | .44**      |
| Reexperiencing        | .52**  | .49**    | .52**    | .37**      |

Significance: \* =  $p < .05$ , \*\* =  $p < .01$

All of the correlations between the types of aggression and psychological symptoms are significant. However, these correlations are especially high with verbal and indirect aggression, somewhat less with physical aggression and the correlations are the weakest, although still significant, with punishment. Below, we will consider the correlations of the types of aggression individually.

- Verbal: The correlations were particularly high with the psychological symptoms and, notably, depression (.56), PTSD (avoidance .56, arousal .54, reexperiencing .52, and impact .48) and hypervigilance (.55).
- Physical: The correlations here were slightly lower here, the most significant being with dissociation (.52), general maladjustment (.51),

depression (.49) and PTSD (avoidance .50, reexperiencing .49, and arousal .49)

- Indirect: This type of aggression showed stronger connections, particularly with hypervigilance (.59), depression (.57), and PTSD (reexperiencing .52, avoidance .51, and arousal .51).
- Punishment: The correlations were weaker overall. There was, however, a notably high correlation between punishment and oppositional conduct (.57), much higher than the other correlations.

### 3.2.7. Correlations between types of aggression and personality variables

In the following table, the correlation coefficients between types of aggression and the personality variables of Neuroticism and Extraversion as well as the three styles of coping (interiorizing, exteriorizing and reference to others) are shown.

Table 16. Correlations between types of aggression and personality variables. (n = 463)

|                     | Verbal | Physical | Indirect | Punishment |
|---------------------|--------|----------|----------|------------|
| Neuroticism         | .35**  | .26**    | .36**    | .28**      |
| Extraversion        | -.10*  | -.11*    | -.18**   | .02        |
| Interiorizing       | .42**  | .36**    | .43**    | .25**      |
| Exteriorizing       | .21**  | .12**    | .20**    | .05        |
| Reference to others | .21**  | .17**    | .23**    | .07        |

Significance: \* =  $p < .05$ , \*\* =  $p < .01$

There is a clear, positive, relationship between neuroticism and all four of the types of aggression, and this is particularly palpable for verbal (.35) and indirect (.36) types. Extraversion shows a weaker and negative correlation with aggression in general. The negative relationship is significant for verbal (-.10), physical (-.11) and particularly for indirect (-.18) aggression. This means that subjects that reported higher levels of introversion also reported higher levels of these types of aggression. There was no relationship with punishment.

Regarding the association between coping styles and aggression, the strongest correlations were found to occur with interiorizing. Those students that ignore their problems, keep their troubles to themselves, blame themselves or simply do nothing, reported much higher levels of aggression, particularly indirect (.43) and verbal (.42), but also physical (.36) and punishment (.25). Those who reported using more exteriorizing (social support, problem solving..) and those with higher levels of reference to others (social action, professional help..) had very similar results. The correlations were much weaker than with interiorizing, but still significant. Both exteriorizing and reference to others showed moderate relationships with indirect (.20 and .23, respectively) and verbal (both .21) aggression. Physical aggression (.12 and .17) was more commonly linked to reference to others coping than exteriorizing coping. There was no relationship between these coping styles and punishment. These correlation coefficients show that those who use the coping style of interiorizing report overall more aggression than those that use other coping styles. This leads us to a preliminary conclusion that interiorizing is the least effective way cope with aggression and may even be conducive to further acts of bullying. This is a relationship that we will study further in regression and mediation analyses.

### 3.2.8. General Conclusions

To conclude this section of results related to the types of aggression and bullying experienced by schoolchildren, here we will synthesize the most relevant data obtained to this effect. The first are the most commonly reported events of each type of aggression, and the differences that exist between groups for these events. Verbal aggression was particularly frequent and being yelled at and made fun of were universally common among all subjects. Physical aggression is somewhat less frequent overall, but getting into fights and being pushed were events that were experienced by approximately half of all students, these being more common in boys than girls, and more in Spaniards than immigrants. Indirect aggression was most represented by other students lying about them or not talking to them, both more frequent among girls. Punishment was reported often, very similarly between boys and girls, but more commonly among Spaniards. Both younger and older students reported similar levels of individual events.



When we observe the overall scale scores and compare the differences in the means between groups using student t-tests, we are able to quantify the differences between groups in the types of aggression experienced as well as the levels of bullying suffered. Here, generally speaking, the results coincide with the hypotheses put forth in the first objective of this study. The differences found between boys and girls correspond completely with hypothesis 1.1. in that boys reported significantly more physical aggression, girls more indirect aggression and the results were virtually identical for verbal aggression. Punishment was hypothesized to be somewhat higher in boys, but the difference was larger than anticipated, both for general and reiterated levels of punishment. The levels of these types of bullying in boys and girls showed the same tendencies as simple aggression, but to a lesser degree.

The differences between Spaniards and immigrants (corresponding with hypothesis 1.2.) were also telling, particularly for the general levels of aggression. Spaniards reported significantly higher levels of physical aggression and punishment, which was somewhat surprising. We anticipated slightly higher levels of physical aggression among the native group, but not to the degree encountered here. One difference that was anticipated was the slightly higher level of verbal aggression and bullying reported by immigrants, this being found primarily for specific items involving race. The results for indirect aggression were not significant, Spaniards reporting slightly higher levels of indirect aggression, a trend found to be stronger for indirect bullying.

In reference to hypothesis 1.3. the results support, to a certain degree, the differences predicted between younger and older students. Younger students were found to experience more verbal and physical aggression and bullying in general, and both groups had very similar levels of punishment. The results of indirect aggression were more confusing. Older children reported slightly more indirect aggression while younger students reported slightly more indirect bullying. However, none of the differences between the two age groups reached significant levels, meaning that here we are observing tendencies that can be taken into account but not considered statistically significant.

Correlation analyses were carried out to study the links between the four different types of aggression with the psychological symptom scales. All of the correlations were

significant, with some symptoms being more commonly reported by those citing aggression than others. Depression and post-traumatic stress symptoms (specifically avoidance, increased arousal and reexperiencing) as well as hypervigilance were very commonly connected to all types of aggression. Punishment carried out by adults in schools was strongly tied to oppositional conduct and significantly linked to the other psychological symptoms, but not to the same degree. We will study these relationships in other sections of the results, using regression and mediation analyses.

Some personality characteristics are also strongly correlated to types of aggression, particularly neuroticism and interiorizing coping. There is a clear, significant, relationship between neuroticism and all four of the types of aggression, especially verbal and indirect. Introversion shows a weaker, but still significant, correlation with victimization. This relationship is significant for verbal, physical and particularly for indirect aggression. There was no relationship between introversion and punishment.

Regarding the association between coping styles and aggression, the strongest correlations were found to occur with interiorizing. These students reported much higher levels of aggression in general. Those which reported using more exteriorizing to resolve their problems and those who often looked to others for help had very similar results. The correlations were much weaker than with interiorizing, but still significant. Both exteriorizing and reference to others showed moderate relationships with indirect, verbal and physical aggression. The use of these coping styles was not related to higher indices of punishment. These correlation coefficients show that those who use the coping style of interiorizing report more aggression overall than those that use other coping styles. These correlations lead us to believe that interiorizing, keeping the problem to oneself or ignoring it, for example, is the least adaptive way to deal with a problem, causing more difficulties, or, that students with more problems tend to use this type of coping style. Most likely it is a vicious cycle where one perpetuates the other. This is a relationship that we will study more profoundly in other sections of this thesis.

### 3.3. The effects of bullying on psychological well-being

The effects that aggression and particularly bullying have on a child or adolescent can be very harmful to their psychological well-being. It can influence their mood, affect their behavior and cause psychological symptoms that range in severity and duration. In this section of results we will center on psychological symptoms, the relationship linking them to aggression and bullying, and the differences between groups based on: gender, immigrant status and age. For this purpose, we will use means analyses, Student t-tests and correlations. Here we will address the hypotheses put forth in Objective 2, concerning the effect that the level of victimization has on level of symptoms well as the differences between the groups based on demographic variables.

In table 17, found below, the means and standard deviations for the 11 symptom scales using the total sample included in the MWES are shown. It is important to note that this sample includes both students who suffered different levels of aggression as well as those who didn't.

Table 17. Means and standard deviations for the total sample on symptom scales. (n=507)

| Scale                 | Total (n = 507) |     |
|-----------------------|-----------------|-----|
|                       | Mean            | SD  |
| Depression            | .75             | .69 |
| Dissociation          | .59             | .61 |
| General Maladjustment | .35             | .36 |
| Hopelessness          | .51             | .62 |
| Hypervigilance        | .75             | .66 |
| Oppositional Conduct  | .88             | .68 |
| Somatic Symptoms      | .78             | .69 |
| Avoidance             | .61             | .61 |
| Increased Arousal     | .80             | .65 |
| Reexperiencing        | .56             | .62 |
| Impact                | .24             | .21 |

The results of these analyses show the following:

- a) Based on the information in Table 17 the most frequently reported symptoms are: Oppositional conduct (.88), increased arousal (.80), somatic

symptoms (.78), depression and hypervigilance (both .75). In general, the participants cited depressive symptoms, physical complaints, acting out and some post-traumatic stress symptomatology.

- b) The symptoms seen the least are impact (.24), general maladjustment (.35), and hopelessness (.51).

### 3.3.1. Psychological symptoms and differences between groups based on level of victimization.

The next table illustrates the differences between students who were severely bullied and those who were not bullied. These two groups were established using a process of item selection and forming groups using a cut-off point. First, 20 of the most common and representative items of all types of aggression were selected. This was done because some of the items were not selected by any subjects, and others were not considered to be aggression, rather events, and, additionally, others involved the student as a witness to aggressive acts and not a victim. As a result the 20 items that were selected were clear examples of common acts of aggression to which the subject was exposed as a victim. Once these items were chosen, and the scores calculated for the variable, the frequencies of the scores were studied in order to establish a cut-off point. The subjects were divided into two groups, bullied and non-bullied, based on their scores. The scores were calculated by calculating the mean of the item scores: 0 (occurring never, once or sometimes) or 1 (occurring often or all the time) and multiplying it by the number of acts considered (in this case 20) Those students with a score of less than 5 were considered to not be victims of bullying while those above 5 were considered to be victims (20.5% of the sample). The vast majority of those in the non bullied group had scores of two or less. Those who were not bullied using this classification method could suffer aggression but not often enough to be deemed bullying.

This analysis corresponds to hypothesis 2.1. It is postulated that those children that are more severely bullied by their peers will suffer many more psychological symptoms, and to a significant degree. Based on the literature presented in the introduction, we

expect this to be particularly true for depression, PTSD, hypervigilance and oppositional conduct.

Table 18. Means, Standard Deviations and t-scores for non-bullied and severely bullied students on symptom scales. (n = 507)

| Scale                 | Bullied<br>(n = 129) |     | Non bullied<br>(n = 378) |     | T - score |
|-----------------------|----------------------|-----|--------------------------|-----|-----------|
|                       | Mean                 | SD  | Mean                     | SD  |           |
| Depression            | 1.18                 | .85 | .58                      | .55 | 9.20***   |
| Dissociation          | .93                  | .77 | .47                      | .49 | 7.90***   |
| General Maladjustment | .56                  | .50 | .28                      | .27 | 8.29***   |
| Hopelessness          | .90                  | .81 | .38                      | .47 | 8.84***   |
| Hypervigilance        | 1.17                 | .74 | .61                      | .56 | 9.00***   |
| Oppositional Conduct  | 1.27                 | .73 | .75                      | .61 | 7.92***   |
| Somatic Symptoms      | 1.12                 | .79 | .66                      | .60 | 6.90***   |
| Avoidance             | 1.03                 | .47 | .75                      | .48 | 9.81***   |
| Increased Arousal     | 1.18                 | .73 | .67                      | .56 | 8.22***   |
| Reexperiencing        | .92                  | .80 | .44                      | .49 | 8.16***   |
| Impact                | .36                  | .20 | .24                      | .18 | 7.88***   |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

- a) As hypothesized, the differences between these two groups, as demonstrated in the very high t values, are very large and generalized. The group that was severely bullied showed much higher levels of all psychological symptoms. This is particularly true for depression ( $t = 9.20$ ,  $p < .001$ ), hypervigilance ( $t = 9.00$ ,  $p < .001$ ), hopelessness ( $t = 8.84$ ,  $p < .001$ ) and the symptoms of PTSD (avoidance,  $t = 9.81$ , increased arousal,  $t = 8.22$ , reexperiencing  $t = 8.16$ , and impact of the event,  $t = 7.88$ ), all significant at the  $p < .001$  level.

### 3.3.1.1. The role of gender

Table 19 shows the means and standard deviations for boys and girls as well as the results of the Student t-tests carried out to quantify the differences between groups. These results correspond to Hypothesis 2.2.

Table 19. Means, standard deviations and t-scores for boys and girls on symptom scales. (n= 507)

| Scale                 | Boys<br>(n = 263) |     | Girls<br>(n = 244) |     | T - score |
|-----------------------|-------------------|-----|--------------------|-----|-----------|
|                       | Mean              | SD  | Mean               | SD  |           |
| Depression            | .62               | .61 | .86                | .74 | -3.92***  |
| Dissociation          | .51               | .57 | .67                | .64 | -3.05**   |
| General Maladjustment | .32               | .38 | .39                | .34 | -.09      |
| Hopelessness          | .45               | .55 | .58                | .68 | -2.26*    |
| Hypervigilance        | .65               | .59 | .86                | .72 | -3.56***  |
| Oppositional Conduct  | .89               | .72 | .88                | .65 | .11       |
| Somatic Symptoms      | .65               | .57 | .92                | .77 | -4.65***  |
| Avoidance             | .52               | .55 | .70                | .66 | -3.37***  |
| Increased Arousal     | .71               | .61 | .90                | .67 | -3.31***  |
| Reexperiencing        | .46               | .54 | .67                | .68 | -3.98***  |
| Impact                | .22               | .19 | .27                | .22 | -2.59**   |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

- b) We hypothesized, based on the literature reviewed in the introduction, that girls would generally report more psychological symptomatology, particularly depression and somatic symptoms. The only exception to this tendency was thought to be oppositional conduct. Generally speaking this hypothesis has been proven, girls showing higher levels of psychological symptoms than boys, there being significant differences in almost all of the subscales. The largest differences were found to be somatic symptoms ( $t = -4.65$ ) reexperiencing ( $t = -3.98$ ) depression ( $t = -3.92$ ) and hypervigilance ( $t = -3.56$ ), all significant at the  $p < .001$  level. The only non-significant difference was with general maladjustment, which is a grouping of emotions and behaviors that do not fit with the other subscales, although many are related to regression and fears.
- c) The only symptom reported with more frequency by boys was oppositional conduct with a non-significant t-score of .11.

From these results, we can conclude that, as a result of their adverse experiences in school, both boys and girls most frequently experience symptoms of oppositional

conduct, somatic symptoms, hypervigilance, PTSD, and depression and those found least are general maladjustment, impact and hopelessness. The differences between the sexes showed great contrast, girls generally reporting significantly more symptoms of almost every type.

Table 20 shows the differences between boys and girls that were bullied on the symptom scores. The results above were based on the total population, and do not demonstrate how bullying affects each gender, instead focusing on how aggression in general affects psychological symptomatology. Here, the sample was split into six different groups: boys and girls with low, medium and high levels of twenty of the more common bullying experiences. For these analyses the boys and girls with high levels of bullying were compared.

Table 20. Means, standard deviations and t-scores for boys and girls who were bullied at school. (n = 123)

| Scale                    | Boys<br>(n = 61) |      | Girls<br>(n = 62) |      | T - score |
|--------------------------|------------------|------|-------------------|------|-----------|
|                          | Mean             | SD   | Mean              | SD   |           |
| Depression               | 1.12             | .73  | 1.48              | .83  | -2.55**   |
| Dissociation             | .99              | .70  | 1.14              | .77  | -1.15     |
| General<br>Maladjustment | .57              | .54  | .63               | .41  | .77       |
| Hopelessness             | .80              | .71  | 1.11              | .86  | -2.19*    |
| Hypervigilance           | 1.17             | .66  | 1.41              | .73  | -1.87     |
| Oppositional<br>Conduct  | 1.42             | .74  | 1.32              | .63  | .79       |
| Somatic Symptoms         | 1.09             | .63  | 1.37              | .84  | -2.09*    |
| Avoidance                | .94              | .66  | 1.30              | .77  | -2.83**   |
| Increased Arousal        | 1.23             | .68  | 1.40              | .68  | -1.38     |
| Reexperiencing           | .71              | .69  | 1.14              | .81  | -1.74     |
| Impact                   | .37              | .21  | .40               | .23  | -.74      |
| Total Symptoms           | 10.46            | 5.64 | 12.44             | 6.27 | -1.83     |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

- a) Generally speaking the same trend is maintained as with simple aggression, with girls reporting more psychological symptoms overall. However, only four of these differences are significant: Avoidance ( $t = -2.83$ ,  $p < .01$ ), depression ( $t = -2.55$ ,  $p < .01$ ), hopelessness ( $t = -2.19$ ,  $p < .05$ ), and somatic symptoms ( $t = -2.09$ ,  $p < .05$ ).

- b) There are some differences that are almost significant: Hypervigilance ( $t = -1.87$ ) and reexperiencing ( $t = -1.74$ ). Additionally, the level of total symptoms experienced is somewhat higher in girls ( $t = -1.83$ ).
- c) Frequently bullied boys show no significantly higher levels of any symptoms. The only symptoms seen slightly more in boys are: Oppositional conduct ( $t = .79$ ) and general maladjustment (.77).

These results lead us to believe that in the general population as well as in those students that are frequently bullied, girls generally report more adverse psychological symptoms, particularly somatic symptoms, depression and post-traumatic stress symptoms. This tendency is slightly less acute for bullying victims. This may indicate an increased disposition in girls to experiencing or reporting negative emotions, which could coincide with the increased levels of neuroticism traditionally reported by them.

### 3.3.1.2. The role of immigration status

Table 21 studies the differences in psychological symptoms between Spanish nationals and immigrants based on their aggression experiences, corresponding with Hypothesis 2.3. Here, it was thought that there would be very little difference between the two groups.



Table 21. Means, standard deviations and t-scores for Spanish nationals and immigrants on symptom scales. (n= 507)

| Scale                 | Spanish<br>(n = 396) |     | Immigrants<br>(n = 109) |     | T - score |
|-----------------------|----------------------|-----|-------------------------|-----|-----------|
|                       | Mean                 | SD  | Mean                    | SD  |           |
| Depression            | .75                  | .70 | .68                     | .65 | .91       |
| Dissociation          | .60                  | .62 | .56                     | .56 | .48       |
| General Maladjustment | .35                  | .36 | .35                     | .37 | -.14      |
| Hopelessness          | .51                  | .62 | .52                     | .61 | -.08      |
| Hypervigilance        | .77                  | .67 | .72                     | .62 | .66       |
| Oppositional Conduct  | .92                  | .69 | .78                     | .66 | 1.90      |
| Somatic Symptoms      | .80                  | .69 | .71                     | .67 | 1.18      |
| Avoidance             | .61                  | .62 | .61                     | .57 | .12       |
| Increased Arousal     | .83                  | .66 | .71                     | .60 | 1.69      |
| Reexperiencing        | .58                  | .63 | .49                     | .58 | 1.31      |
| Impact                | .26                  | .21 | .19                     | .20 | 2.88**    |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

Almost all of the symptom scales reveal very little difference between Spanish nationals and immigrants, in accordance with the hypothesis. The only significant difference between the two was found in the impact of the event subscale ( $t = 2.88$ ,  $p < .01$ ), which affected Spaniards more. There were two other scales that showed some difference, oppositional conduct ( $t = 1.90$ ) found to be higher in Spaniards, as well as increased arousal ( $t = 1.69$ ). The rest of the scales were very similar, most of them demonstrating slightly higher levels in Spaniards.

The next table shows the differences between those Spaniards and immigrants who were frequently bullied. It is important to take into consideration the small sample size of the immigrant group.

Table 22. Means, standard deviations and t-scores for Spaniards and immigrants who were frequently bullied at school. (n = 123)

| Scale                    | Spanish<br>(n = 99) |      | Immigrant<br>(n = 24) |      | T - score |
|--------------------------|---------------------|------|-----------------------|------|-----------|
|                          | Mean                | SD   | Mean                  | SD   |           |
| Depression               | 1.34                | .83  | 1.15                  | .68  | 1.20      |
| Dissociation             | 1.08                | .76  | .99                   | .62  | .63       |
| General<br>Maladjustment | .60                 | .51  | .61                   | .36  | -.14      |
| Hopelessness             | .96                 | .79  | .95                   | .86  | .07       |
| Hypervigilance           | 1.31                | .73  | 1.23                  | .60  | .52       |
| Oppositional<br>Conduct  | 1.37                | .70  | 1.37                  | .66  | -.01      |
| Somatic Symptoms         | 1.28                | .75  | 1.01                  | .73  | 1.61      |
| Avoidance                | 1.14                | .77  | .88                   | .70  | 1.12      |
| Increased Arousal        | 1.35                | .70  | 1.18                  | .62  | 1.14      |
| Reexperiencing           | 1.06                | .77  | .88                   | .70  | 1.12      |
| Impact                   | .40                 | .22  | .31                   | .22  | 1.85      |
| Total Symptoms           | 11.62               | 6.15 | 10.78                 | 5.55 | .66       |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

- a) Here, we see the same trend as demonstrated in the general population. Spaniards manifest slightly higher levels of almost all symptoms, particularly impact. However, here, none of these differences are significant.

For the groups formed here based on immigrant status, there is little divergence, the only tendency being slightly higher symptomatology overall.

### 3.3.1.3. The role of age

The next tables show the results for the analyses carried out for younger (11-14 years old) and older (15-19 years old) students regarding the psychological symptoms that they endure as a result of aggressive experiences and frequent bullying. It was hypothesized that there would be little difference between the two groups, as the psychological consequences we are studying here are predominantly short-term. The literature cited in the introduction mentions more relevant differences for long-term psychological outcomes.

Table 23. Means, standard deviations and t-scores for younger and older students on symptom scales. (n = 507)

| Scale                 | Younger Students<br>(n = 195) |     | Older Students<br>(n = 312) |     | T - score |
|-----------------------|-------------------------------|-----|-----------------------------|-----|-----------|
|                       | Mean                          | SD  | Mean                        | SD  |           |
| Depression            | .70                           | .68 | .76                         | .69 | -.90      |
| Dissociation          | .58                           | .61 | .59                         | .61 | -.22      |
| General Maladjustment | .35                           | .39 | .35                         | .35 | .20       |
| Hopelessness          | .46                           | .59 | .55                         | .63 | -1.68     |
| Hypervigilance        | .65                           | .61 | .82                         | .68 | -2.90**   |
| Oppositional Conduct  | .84                           | .64 | .91                         | .71 | -1.20     |
| Somatic Symptoms      | .81                           | .70 | .76                         | .68 | .82       |
| Avoidance             | .56                           | .62 | .84                         | .67 | -1.49     |
| Increased Arousal     | .75                           | .62 | .84                         | .67 | -1.39     |
| Reexperiencing        | .55                           | .62 | .56                         | .63 | -.20      |
| Impact                | .23                           | .21 | .25                         | .21 | -.95      |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

- a) As we see in the table above there is only one significant difference between the two groups. Older students reported significantly more hypervigilance (-2.90,  $p < .01$ ). In general, older students showed slightly higher levels of most types of symptoms, particularly hopelessness (-1.68) and avoidance (-1.49), with the exception of somatic symptoms ( $t = .82$ ) and general maladjustment (.20).

Table 24 shows the t-scores for the two groups only with those students that were frequently bullied.

Table 24. Means, standard deviations and t-scores for younger and older students who were frequently bullied at school. (n = 123)

| Scale                 | Younger Students<br>(n = 53) |      | Older Students<br>(n = 70) |      | T - score |
|-----------------------|------------------------------|------|----------------------------|------|-----------|
|                       | Mean                         | SD   | Mean                       | SD   |           |
| Depression            | 1.21                         | .82  | 1.38                       | .79  | -1.15     |
| Dissociation          | 1.02                         | .79  | 1.93                       | .70  | -.51      |
| General Maladjustment | .57                          | .52  | .62                        | .45  | -.58      |
| Hopelessness          | .84                          | .78  | 1.05                       | .81  | -1.43     |
| Hypervigilance        | 1.11                         | .68  | 1.43                       | .70  | -2.51*    |
| Oppositional Conduct  | 1.31                         | .65  | 1.41                       | .72  | -.82      |
| Somatic Symptoms      | 1.22                         | .76  | 1.23                       | .76  | -.02      |
| Avoidance             | 1.02                         | .77  | 1.20                       | .70  | -1.34     |
| Increased Arousal     | 1.21                         | .68  | 1.39                       | .68  | -1.49     |
| Reexperiencing        | .93                          | .75  | 1.09                       | .76  | -1.16     |
| Impact                | .36                          | .22  | .40                        | .22  | .88       |
| Total Symptoms        | 10.59                        | 6.18 | 12.12                      | 5.86 | -1.39     |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

a) Here, the same tendencies are seen as with the general population, although here there were slightly higher levels of general maladjustment ( $t = -.58$ ) in older students and impact in younger students ( $t = .88$ ). Levels of somatic symptoms were the same.

### 3.3.2. General conclusions

Here, we will compile the general conclusions about the psychological symptoms that students experienced as a result of the aggression that students faced at their schools, as well as the differences that can be observed between groups based on bullying status and demographic variables.

Taking into consideration the sample of students as a whole, we see that, generally speaking, there are some symptoms that are particularly frequent as a result of adverse school experiences. These are: Oppositional conduct, somatic symptoms, depression, hypervigilance and post-traumatic stress. These students, consequently, act out with authority figures, report physical problems such as headaches, feeling sad and withdrawn, are often alert to future attacks and tend to relive, in their minds, their experiences.

That said, the psychological consequences of school aggression and bullying vary in the type of symptomatology experienced as well as the degree to which the person suffers. These levels can be diverse depending upon demographic variables such as the person's gender, age or immigrant status as well as the degree of bullying that the person was subjected to. The purpose of this section of results was to determine which of these variables can influence the psychological symptoms that students experience, and to what degree. We expected that the severity and continuity of aggression would influence the psychological well-being of the person. This distinction between those who were not bullied and those who were severely bullied was extremely telling in this aspect. The *t* values of all of the scales were very high (from 6.90 to 9.20,  $p < .001$ ), making this a very influential factor in the development of psychological symptoms. Those students who reported more prolonged and repetitive acts of aggression also reported much more psychological difficulties of every type.

Regarding the role of demographic variables, we observe that some are more telling than others. Gender was shown to influence the psychological symptoms that the students experienced, with girls in the general population as well as those frequently bullied reporting significantly more of almost all symptom types, particularly somatic symptoms, depression and hypervigilance. This was not the case for oppositional conduct or general maladjustment, where the levels were practically the same for both groups. The immigrant status of the student was found to be less relevant, with Spaniards reporting slightly more symptoms overall, the only significant difference being for the impact of the event. There was also little difference in the amount and type of aggression suffered, leading to similar overall experiences. As, in the case of our sample, there is generally little or no language barrier between the two groups, facilitating integration and belonging, the mere fact of being from another country does not seem to be enough to cause divergence between these two groups.

Age was considered as another factor in determining the psychological outcome of victims of aggression, although it was found not to be particularly important. Generally speaking, older students reported slightly higher levels of symptoms, with the exception of somatic symptoms, found slightly more in younger students. Older students reported being more vigilant of their environment and their peers as a result of aggression, however, apart from that, the differences between the two age groups were not large,

leading us to the conclusion that age is not a determining factor in the short-term psychological outcome of children exposed to aggression.

### 3.4. Personality characteristics and coping styles: differences between groups

The individuality of people extending beyond their demographic characteristics is very important when studying the reactions of people to stressors. This information leads us to determine, generally speaking, which aspects of personality or behavior are more conducive to, in this case, determining a better psychological outcome resulting from school aggression or bullying. Here we will study two personality traits, neuroticism and extraversion, as well as three coping styles, exteriorizing, interiorizing, and reference to others. Additionally, the individual coping mechanisms will be studied independently to further analyze the specific behaviors that are the most adaptive and which are more counterproductive to both the victimization status as well as the psychological well-being of the individual.

#### 3.4.1. Determining coping styles

The first step that needs to be taken before carrying out further analyses is to establish and comprehensively define the three coping styles that we will be taking into consideration. In order to do this a factor analysis with varimax rotation was carried out with the coping mechanisms provided by the Adolescent Coping Scale (ACS, Frydenberg and Lewis, 2000). The results of this factor analysis are shown in table 25.

Table 25. Results of the factor analysis with coping mechanisms. (n=518)

| Mechanisms                       | Factors       |               |                     |
|----------------------------------|---------------|---------------|---------------------|
|                                  | Exteriorizing | Interiorizing | Reference to Others |
| Social Support                   | <u>.622</u>   | .076          | .593                |
| Problem Solving                  | <u>.660</u>   | .182          | .501                |
| Making effort & being successful | <u>.794</u>   | .093          | .167                |
| Worry                            | <u>.749</u>   | .251          | .329                |
| Invest in close friends          | <u>.733</u>   | .120          | .319                |
| Belonging                        | <u>.785</u>   | .258          | .270                |
| Hope                             | <u>.609</u>   | .477          | .228                |
| Lack of coping                   | .042          | <u>.781</u>   | .187                |
| Tension reduction                | .062          | <u>.662</u>   | .381                |
| Social action                    | .219          | .192          | <u>.672</u>         |
| Ignore problem                   | .204          | <u>.700</u>   | -.042               |
| Self blame                       | .124          | <u>.785</u>   | .259                |
| Keeping it for oneself           | .229          | <u>.797</u>   | -.051               |
| Spiritual help                   | .283          | .209          | <u>.632</u>         |
| Focus on positive                | <u>.742</u>   | .245          | .289                |
| Professional help                | .361          | .031          | <u>.744</u>         |
| Relaxing diversions              | <u>.763</u>   | .145          | .252                |
| Physical distraction             | <u>.728</u>   | .006          | .043                |

Extraction method: principal component analysis. Rotation method: varimax with Kaiser normalization. Rotation converged in 5 iterations.

Studying the results of this factor analysis, we observe three clear factors, which are coping styles, made up from different coping mechanisms.

- a) Exteriorizing coping is composed of the following ten coping mechanisms: Social support, problem solving, making an effort and being successful, worrying, investing in close friends, belonging, hope, focusing on the positive, relaxing diversions and physical distraction.
- b) Interiorizing coping is made up of the following five coping mechanisms: Lack of coping, tension reduction, ignoring the problem, self blame and keeping the problem for oneself.
- c) Reference to others coping includes the following three coping mechanisms: Social action, spiritual help and professional help.

The three coping styles are clearly defined by this factor analysis. There is only one mechanism found to weigh similarly in two factors, which is social support, found in exteriorizing and reference to others. However, after reviewing the individual items it was determined that the nature of support seeking was, for the most part, to receive emotional support instead of practical help to directly resolve the problem, supporting its inclusion into the externalizing coping style.

### 3.4.2. Differences between gender groups

In table 26, below, the means and standard deviations for the personality scales included in the EPQ-J are shown. A Student t-test was carried out to find the differences between men and women. For these analyses, the sub-sample that completed all of the questionnaires (n=451) was used. These results show the personality characteristics manifested in boys and girls. In table 27 the differences between genders for the individual coping mechanisms are displayed.

Table 26. Means, standard deviations and t-scores for girls and boys on personality scales. (n = 451)

| Scale               | Girls<br>(n = 218) |     | Boys<br>(n = 233) |     | T - score |
|---------------------|--------------------|-----|-------------------|-----|-----------|
|                     | Mean               | SD  | Mean              | SD  |           |
| Neuroticism         | .51                | .22 | .42               | .22 | 4.24***   |
| Extraversion        | .74                | .15 | .74               | .17 | -.21      |
| Interiorizing       | .94                | .64 | .60               | .57 | 6.05***   |
| Exteriorizing       | 2.13               | .77 | 1.51              | .87 | 8.39***   |
| Reference to others | .86                | .61 | .61               | .59 | 4.51***   |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

The results of these analyses show the following:

- a) Girls showed significantly higher levels of neuroticism than boys. ( $t = 4.24, p < .001$ )
- b) Extraversion was a trait that was virtually identical in boys and girls ( $t = -.21$ ).



- c) Levels of coping styles showed large differences between boys and girls. Girls reported using exteriorizing ( $t = 8.39, p < .001$ ), interiorizing ( $t = 6.05, p < .001$ ), and reference to others ( $t = 4.51, p < .001$ ) coping with much more frequency.

Table 27. Means, standard deviations and t-scores for girls and boys on coping mechanisms. ( $n = 487$ ).

| Scale                 | Girls<br>( $n = 235$ ) |      | Boys<br>( $n = 252$ ) |      | T - score |
|-----------------------|------------------------|------|-----------------------|------|-----------|
|                       | Mean                   | SD   | Mean                  | SD   |           |
| Social Support        | 2.07                   | 1.09 | 1.29                  | .99  | 8.23***   |
| Problem Solving       | 2.12                   | 1.00 | 1.69                  | 1.09 | 4.57***   |
| Effort/Success        | 2.14                   | 1.00 | 1.68                  | 1.09 | 4.88***   |
| Worrying              | 2.29                   | .98  | 1.62                  | 1.07 | 7.20***   |
| Invest Friends        | 2.27                   | .95  | 1.70                  | 1.05 | 6.36***   |
| Belonging             | 2.38                   | .90  | 1.66                  | 1.05 | 8.11***   |
| Hope                  | 1.91                   | .90  | 1.31                  | .95  | 7.18***   |
| No Coping             | .82                    | .73  | .53                   | .60  | 4.73***   |
| Tension Reduction     | .93                    | .73  | .43                   | .55  | 8.48***   |
| Social Action         | .46                    | .55  | .35                   | .55  | 2.19*     |
| Ignore Problem        | .76                    | .81  | .56                   | .73  | 2.82**    |
| Blame Self            | 1.04                   | .98  | .63                   | .82  | 4.95***   |
| Reserve for Self      | 1.14                   | .98  | .86                   | .97  | 3.10**    |
| Spiritual Help        | .92                    | .75  | .66                   | .78  | 3.72***   |
| Positive Thinking     | 2.00                   | 1.02 | 1.40                  | 1.07 | 6.36***   |
| Professional Help     | 1.21                   | 1.02 | .83                   | .81  | 4.41***   |
| Relaxing Diversions   | 2.34                   | 1.04 | 1.83                  | 1.21 | 4.99***   |
| Physical Distractions | 1.96                   | 1.16 | 2.09                  | 1.33 | -1.17     |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

- a) All but one of the coping mechanisms were reported to be used more by girls than boys. This is especially true for the following mechanisms: Tension reduction ( $t = 8.48$ ), social support ( $t = 8.23$ ), belonging ( $t = 8.11$ ), worrying ( $t = 7.20$ ) and hope ( $t = 7.18$ ). All of these t-values are significant at the  $p < .001$  level.
- b) The only mechanism that was reported slightly more by boys was physical distraction ( $t = -1.17$ ), which includes items involving sports and exercise.

### 3.4.3. Differences between groups based on immigrant status

In tables 28 and 29, these same characteristics are presented for Spanish students and immigrants.

Table 28. Means, standard deviations and t-scores for Spaniards and immigrants on personality scales. (n = 449).

| Scale               | Spanish<br>(n = 352) |     | Immigrant<br>(n = 97) |     | T - score |
|---------------------|----------------------|-----|-----------------------|-----|-----------|
|                     | Mean                 | SD  | Mean                  | SD  |           |
| Neuroticism         | .46                  | .23 | .50                   | .23 | -1.77     |
| Extraversion        | .74                  | .16 | .74                   | .15 | .05       |
| Exteriorizing       | 1.82                 | .87 | 1.78                  | .92 | .40       |
| Interiorizing       | .77                  | .63 | .76                   | .61 | .10       |
| Reference to others | .70                  | .60 | .85                   | .65 | -2.33*    |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

- a) There were no significant differences between immigrants and Spaniards on personality variables. Immigrants reported slightly higher levels of neuroticism ( $t = -1.77$ ), and the levels of extraversion were virtually identical.
- b) Spaniards and immigrants reported using exteriorizing and interiorizing coping to the same degree. Immigrants reported significantly more reference to others coping ( $t = -2.33$ ,  $p < .05$ ).

We will now compare the two groups on levels of individual coping mechanisms to determine if there are specific behaviors used more by one of the groups.

Table 29. Means, standard deviations and t-scores for Spaniards and immigrants on coping mechanisms. (n = 484)

| Scale                 | Spanish<br>(n = 382) |      | Immigrants<br>(n = 102) |      | T - score |
|-----------------------|----------------------|------|-------------------------|------|-----------|
|                       | Mean                 | SD   | Mean                    | SD   |           |
| Social Support        | 1.69                 | 1.12 | 1.61                    | 1.11 | .60       |
| Problem Solving       | 1.90                 | 1.05 | 1.91                    | 1.15 | -.05      |
| Effort/Success        | 1.91                 | 1.06 | 1.91                    | 1.15 | -.03      |
| Worrying              | 1.94                 | 1.07 | 1.96                    | 1.12 | -.15      |
| Invest Friends        | 1.99                 | 1.03 | 1.92                    | 1.12 | .54       |
| Belonging             | 2.03                 | 1.04 | 1.92                    | 1.08 | .86       |
| Hope                  | 1.60                 | .98  | 1.58                    | .98  | .24       |
| No Coping             | .67                  | .70  | .65                     | .61  | .41       |
| Tension Reduction     | .67                  | .69  | .67                     | .68  | -.01      |
| Social Action         | .43                  | .59  | .31                     | .41  | 2.26*     |
| Ignore Problem        | .67                  | .79  | .62                     | .73  | .58       |
| Blame Self            | .82                  | .93  | .86                     | .87  | -.41      |
| Reserve for Self      | .99                  | .99  | .96                     | .94  | -.06      |
| Spiritual Help        | .68                  | .69  | 1.18                    | .96  | -4.96**   |
| Positive Thinking     | 1.67                 | 1.06 | 1.79                    | 1.19 | -.90      |
| Professional Help     | .99                  | .93  | 1.09                    | .96  | -.86      |
| Relaxing Diversions   | 2.08                 | 1.16 | 2.07                    | 1.15 | .06       |
| Physical Distractions | 2.04                 | 1.24 | 1.97                    | 1.30 | .48       |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

- a) Almost all of the levels of coping mechanisms were similar for Spanish nationals and immigrants.
- b) There were only two significant differences between the two groups, both of which pertain to reference to others coping. Spaniards used social action more frequently, that is, forming groups and acting in an organized fashion to resolve the problem ( $t = 2.26$ ,  $p < .05$ ). Immigrants reported seeking spiritual help ( $t = -4.96$ ,  $p < .001$ ) much more often, which includes praying and consulting figures within the church.

#### 3.4.4. Differences between groups based on age

In tables 30 and 31, younger (ages 11 to 14) and older (15 to 19) students are compared in order to determine if there are differences between these two groups in terms of personality variables and coping styles as well as individual mechanisms.

Table 30. Means, standard deviations and t-scores for younger and older students on personality scales. (n = 518)

| Scale               | Younger Students<br>(n =203) |     | Older Students<br>(n =315) |     | T - score |
|---------------------|------------------------------|-----|----------------------------|-----|-----------|
|                     | Mean                         | SD  | Mean                       | SD  |           |
| Neuroticism         | .46                          | .22 | .47                        | .23 | -.07      |
| Extraversion        | .74                          | .15 | .74                        | .17 | .44       |
| Exteriorizing       | 1.67                         | .89 | 1.89                       | .86 | -2.67**   |
| Interiorizing       | .68                          | .60 | .81                        | .64 | -2.16*    |
| Reference to others | .65                          | .61 | .85                        | .65 | -2.14*    |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

- a) The groups manifest almost identical levels of neuroticism (-.07) and very similar levels of extraversion (.44).
- b) Older students reported higher levels of all types of coping styles, particularly exteriorizing ( $t = -2.67, p < .01$ ), followed by interiorizing ( $t = -2.16, p < .01$ ) and reference to others ( $t = -2.14, p < .01$ ).

Below, in table 31, we will see what specific mechanisms are found to be used more frequently by both of the groups.

Table 31. Means, standard deviations and t-scores for younger and older students on coping mechanisms. (n = 518)

| Scale                 | Younger Students<br>(n = 203) |      | Older Students<br>(n = 315) |      | T - score |
|-----------------------|-------------------------------|------|-----------------------------|------|-----------|
|                       | Mean                          | SD   | Mean                        | SD   |           |
| Social Support        | 1.49                          | 1.04 | 1.78                        | 1.14 | -2.82**   |
| Problem Solving       | 1.41                          | 1.09 | 1.66                        | 1.09 | -2.45*    |
| Effort/Success        | 1.76                          | 1.12 | 1.98                        | 1.03 | -2.20*    |
| Worrying              | 1.78                          | 1.08 | 2.04                        | 1.07 | -2.52*    |
| Invest Friends        | 1.86                          | 1.04 | 2.04                        | 1.04 | -1.82     |
| Belonging             | 1.85                          | 1.07 | 2.09                        | 1.02 | -2.42*    |
| Hope                  | 1.43                          | 1.02 | 1.64                        | .95  | -1.26     |
| No Coping             | .64                           | .66  | .69                         | .69  | -1.07     |
| Tension Reduction     | .59                           | .64  | .72                         | .72  | -1.89     |
| Social Action         | .37                           | .58  | .42                         | .54  | -1.10     |
| Ignore Problem        | .56                           | .70  | .72                         | .81  | -2.15*    |
| Blame Self            | .72                           | .89  | .89                         | .93  | -1.96*    |
| Reserve for Self      | .92                           | .97  | 1.04                        | .99  | -1.32     |
| Spiritual Help        | .69                           | .75  | .84                         | .79  | -1.97*    |
| Positive Thinking     | 1.59                          | 1.13 | 1.76                        | 1.05 | -1.67     |
| Professional Help     | .90                           | .92  | 1.08                        | .94  | -2.10*    |
| Relaxing Diversions   | 1.09                          | 1.19 | 2.15                        | 1.14 | -1.91     |
| Physical Distractions | 2.01                          | 1.25 | 2.04                        | 1.25 | -.26      |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

- a) All coping mechanisms are reported more by older students, but to varying degrees. Particularly relevant are those related to exteriorizing coping as well as reference to others coping. However, two types of interiorizing coping (ignore problem and blame oneself) are also seen significantly more among older students.

### 3.4.5. Correlations between personality, bullying experiences and symptoms

In table 32, the correlations between the 5 personality scales included in the ACS and EPQ-J, the 11 symptom scales found in the SATS and the level of bullying are shown. For these analyses, the sub-sample that completed all of the questionnaires (n=451) was used. These results show the correlations that exist between these variables

Table 32. Correlations between scale scores (n = 451)

| Scale     | Exterior | Interior | Others | Neurot | Extra  | Impact | Reexp | Avoid | Arousal | Depress | Oppcond | Hypervig | Somatic | Hopeless | Dissoc | General | Bully |
|-----------|----------|----------|--------|--------|--------|--------|-------|-------|---------|---------|---------|----------|---------|----------|--------|---------|-------|
| Exterior  | -        |          |        |        |        |        |       |       |         |         |         |          |         |          |        |         |       |
| Interior  | .46**    | -        |        |        |        |        |       |       |         |         |         |          |         |          |        |         |       |
| Others    | .67**    | .37**    | -      |        |        |        |       |       |         |         |         |          |         |          |        |         |       |
| Neurot    | .22**    | .57**    | .16**  | -      |        |        |       |       |         |         |         |          |         |          |        |         |       |
| Extra     | .24**    | -.21**   | .14**  | -.22** | -      |        |       |       |         |         |         |          |         |          |        |         |       |
| Impact    | .30**    | .60**    | .25**  | .51**  | -.11*  | -      |       |       |         |         |         |          |         |          |        |         |       |
| Reexp     | .32**    | .63**    | .32**  | .51**  | -.10*  | .74**  | -     |       |         |         |         |          |         |          |        |         |       |
| Avoid     | .28**    | .75**    | .28**  | .59**  | -.21** | .73**  | .80** | -     |         |         |         |          |         |          |        |         |       |
| Arousal   | .36**    | .70**    | .33**  | .55**  | -.07   | .82**  | .79** | .85** | -       |         |         |          |         |          |        |         |       |
| Depress   | .32**    | .73**    | .29**  | .59**  | -.17** | .81**  | .87** | .94** | .90**   | -       |         |          |         |          |        |         |       |
| Oppcond   | .22**    | .54**    | .18**  | .46**  | -.01   | .65**  | .59** | .67** | .83**   | .67**   | -       |          |         |          |        |         |       |
| Hypervig  | .41**    | .69**    | .37**  | .53**  | -.10*  | .73**  | .80** | .85** | .86**   | .84**   | .63**   | -        |         |          |        |         |       |
| Somatic   | .30**    | .57**    | .33**  | .49**  | -.06   | .68**  | .71** | .71** | .75**   | .75**   | .60**   | .65**    | -       |          |        |         |       |
| Hopeless  | .21**    | .70**    | .23**  | .51**  | -.16** | .69**  | .75** | .87** | .78**   | .84**   | .65**   | .74**    | .64**   | -        |        |         |       |
| Dissociat | .32**    | .63**    | .36**  | .48**  | -.09   | .71**  | .84** | .80** | .84**   | .83**   | .65**   | .78**    | .73**   | .71**    | -      |         |       |
| Gen Mal   | .26**    | .58**    | .35**  | .39**  | -.07   | .64**  | .74** | .69** | .73**   | .72**   | .63**   | .65**    | .63**   | .68**    | .73**  | -       |       |
| Bully     | .18**    | .40**    | .18**  | .32**  | -.17** | .47**  | .52** | .57** | .53**   | .56**   | .47**   | .56**    | .44**   | .49**    | .52**  | .49**   | -     |

Exterior = Extrenizing coping; interior = interiorizing coping; Neurot = neuroticism; Extra = extraversion; Impact = impact; Reexp = reexperiencing; Avoid = avoidance; Arousal = increased arousal; Depress = depression; Oppcond = oppositional conduct; Hypervig = hypervigilance; Somatic = somatic symptoms; Hopeless = hopelessness; Dissoc = dissociation; General = general maladjustment; Bully = total common aggressive acts.

Significance: \* = p < .05 ; \*\* = p < .01

The results of these analyses show the following:

- a) The correlations between the personality scales show some relationships between the five. It is important to note that a very significant correlation was shown to exist between interiorizing coping and neuroticism (.57,  $p < .01$ ) as well as between exteriorizing coping and reference to others coping (.67,  $p < .01$ ). This is to be expected when taking into account the factor analyses shown in table 25. Exteriorizing coping was also shown to have a relationship, although to a lesser degree, with extraversion (.24,  $p < .01$ ). The only negative relationships found were between extraversion and neuroticism (-.22,  $p < .01$ ) and extraversion and interiorizing coping (-.21,  $p < .01$ ).
- b) The four scales of PTSD (impact, reexperiencing, arousal and avoidance) were strongly correlated to interiorizing coping and neuroticism, with coefficients ranging from .60 to .75 and from .51 to .59 respectively (all significant at the  $p < .01$  level). The correlations between these scales and exteriorizing coping and reference to others coping were also significant, but to a much smaller degree (all close to .30,  $p < .01$ ). The relationship between PTSD and extraversion was negative and ranged from -.07 (arousal) to avoidance -.21 ( $p < .01$ ). Avoidance is the symptom scale that has the most significant relationships with other symptoms, ranging from .67 (oppositional conduct) to .94 (depression).
- c) The symptom scale of depression has a strong positive relationship with the two personality characteristics of interiorizing coping (.73,  $p < .001$ ) and neuroticism (.59,  $p < .001$ ) and a negative relationship with extraversion (-.17,  $p < .05$ ). Exteriorizing and reference to others coping also showed a significant relationship, but to a much lesser degree (.32 and .29, respectively,  $p < .01$ ). It is a symptom scale that has very significant relationships with other symptoms. It has a high correlation with all of the other symptom scales (ranging from .67,  $p < .01$ , oppositional conduct, to .84,  $p < .01$ , hypervigilance and hopelessness).
- d) Oppositional Conduct has a positive relationship with interiorizing coping (.54,  $p < .001$ ) and neuroticism (.46,  $p < .001$ ). It has positive correlations with all other

symptom scales. The indices range from .60 ( $p < .01$ ) (somatic symptoms) to .83 ( $p < .01$ ) (increased arousal).

- e) Hypervigilance has a very positive relationship with interiorizing coping (.69,  $p < .01$ ), and neuroticism (.53,  $p < .01$ ). It also has significant relationships with exteriorizing and reference to others coping (.41,  $p < .01$  and .37  $p < .01$ , respectively). There is a significant negative relationship with extraversion (-.10,  $p < .05$ ). It has very high, positive correlations with all other symptom scales. The indices range from .63 ( $p < .01$ ) (oppositional conduct) to .86 ( $p < .01$ ) (increased arousal). There is also a strong link between hypervigilance and bullying, one of the highest, at .56 ( $p < .01$ )
- f) The somatic symptoms scale has a positive relationship with interiorizing coping (.57,  $p < .01$ ), and neuroticism (.49,  $p < .01$ ). There are also significant relationships, although much lower, with exteriorizing and reference to others coping (.30 and .33, respectively, both  $p < .05$ ). It has positive correlations with all other symptom scales, although to a lesser degree. The indices range from .60 ( $p < .01$ ) (oppositional conduct) to .75 ( $p < .01$ ) (depression). The correlation with bullying is high at .44 ( $p < .01$ ).
- g) Hopelessness has a very high correlation with interiorizing coping (.70,  $p < .01$ ) and neuroticism (.51,  $p < .01$ ). The relationships with exteriorizing and reference to others coping (.21 and .23, respectively, both  $p < .01$ ) are relatively low. It has high, positive correlations with all other symptom scales. The indices range from .64 ( $p < .01$ ) (somatic symptoms) to .87 ( $p < .01$ ) (avoidance).
- h) General maladjustment has a positive relationship with interiorizing coping (.58,  $p < .01$ ) and neuroticism (.39,  $p < .01$ ). The relationships with exteriorizing and reference to others coping (.26 and .35, respectively, both  $p < .01$ ) are relatively low. It also has positive correlations with all other symptom scales. The indices range from .64 ( $p < .01$ ) (impact) to .74 ( $p < .01$ ) (reexperiencing).
- i) Correlation analyses were carried out between the amount of bullying victimization and all of the personality scales. Here, the results are quite telling.



The coping style with the highest correlation with victimization is internalizing coping (.40,  $p < .01$ ). This is followed, with much difference, by exteriorizing coping (.18,  $p < .01$ ) and reference to others coping (.18,  $p < .01$ ). The relationships with neuroticism (.32,  $p < .01$ ) and extraversion (-.17,  $p < .01$ ) are also significant.

- j) When observing the correlations of bullying with symptom scales, it becomes clear that overall there is little variability among the results. However, looking at the indices separately, some conclusions can be made. The magnitude of these correlations, all significant at the .01 level, is shown here, from lowest to highest: somatic symptoms (.44), impact and oppositional conduct (.47), hopelessness and general maladjustment (.49), reexperiencing and dissociation (.52), arousal (.53), depression and hypervigilance (.56), and avoidance (.57). People with high levels of victimization, generally speaking, showed high levels of depression, hypervigilance and PTSD.

One point that must be made here is that subjects that are low in extraversion are not necessarily introverted; they are, in most cases, simply less extroverted than their peers with higher scores in this measure. This could account for the relatively low, although often significant, correlations between this personality variable and psychological symptoms. The fact that these correlations are negative suggests that those subjects with lower levels of extraversion tend to have more symptoms.

### 3.5. The role of personality: Comparing levels of personality variables

The essence of this thesis is to determine the role that personality plays in the psychological effects of school aggression and bullying behavior. This will be studied in three different ways in order to fully understand this phenomenon. The first method we will use is comparing groups with high and low levels of each of the five personality variables. These analyses are shown in this section. In this way we can determine the magnitude of the disparity between these groups, if in fact there are tangible differences. These analyses allow us to study all of the types of aggression and

psychological symptoms individually and observe which are more common in students with a particular personality profile. The next two steps, found further on in this chapter, include regression analyses to determine the most influential variables for psychological symptoms, and mediation analyses to determine the exact nature of the relationship among variables, allowing us to determine, to a certain degree, the impact that personality variables have on the relationship between victimization and specific psychological consequences.

### 3.5.1. The role of neuroticism

In table 33 two groups of subjects with high and low levels of neuroticism were compared using the means and standard deviations for the 11 symptom scales included in the MWES. The differences in bullying victimization were also calculated. The two samples used were obtained by creating three similarly sized groups of low, medium and high levels of neuroticism, using all the subjects that filled out the MWES, SATS and EPQ-J questionnaires. These groups were established by identifying cut-off points, using the statistical function of the program, which divide the group into precise thirds. Then these cut-off points were rounded to two decimal points. Of the three groups that were formed, two were used for the analyses shown below. These results show the difference in symptoms experienced by subjects with high and low levels of neuroticism, eliminating the group with mid-range levels of neuroticism, as a result of their experiences indicated in the SATS. Here, for the purposes of describing the sample, the groups will be referred to as “neurotic” and “not neurotic.” However, it is important to note that these subjects were not tested to determine the clinical significance of the levels. Therefore, they are not considered clinically neurotic, but instead have relatively high levels of neuroticism when compared to other subjects.

Table 33. Differences between subjects with high and low levels of neuroticism in symptom scale means and standard deviations (n = 332)

| Scale                    | Neurotic<br>(n = 155) |     | Not Neurotic<br>(n = 177) |     | T – score |
|--------------------------|-----------------------|-----|---------------------------|-----|-----------|
|                          | Mean                  | SD  | Mean                      | SD  |           |
| Depression               | 1.22                  | .74 | .32                       | .38 | 13.74***  |
| Dissociation             | .93                   | .68 | .27                       | .36 | 10.89***  |
| General<br>Maladjustment | .51                   | .39 | .20                       | .30 | 8.08***   |
| Hopelessness             | .92                   | .74 | .22                       | .31 | 11.11***  |
| Hypervigilance           | 1.19                  | .73 | .40                       | .42 | 12.07***  |
| Oppositional<br>Conduct  | 1.23                  | .71 | .54                       | .51 | 10.24***  |
| Somatic<br>Symptoms      | 1.14                  | .74 | .41                       | .43 | 10.91***  |
| Avoidance                | 1.06                  | .66 | .25                       | .30 | 14.05***  |
| Increased Arousal        | 1.22                  | .68 | .42                       | .42 | 12.82***  |
| Reexperiencing           | .95                   | .74 | .24                       | .35 | 11.06***  |
| Impact                   | .36                   | .22 | .14                       | .14 | 11.17***  |
| Total Events             | 1.22                  | .74 | .32                       | .38 | 8.32***   |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

The results of these analyses show the following:

- a) There are extremely significant differences between subjects with high and low neuroticism on the scores of all of symptom scales. The results are particularly pronounced on the avoidance ( $t = 14.05$ ,  $p < .001$ ), depression ( $t = 13.74$ ,  $p < .001$ ), increased arousal ( $t = 12.82$ ,  $p < .001$ ), and hypervigilance ( $t = 12.07$ ,  $p < .001$ ) scales. Subjects with high levels of neuroticism showed much higher indices of all psychological symptoms.
- b) There is also a significant difference between the two groups regarding the number of events experienced ( $t = 8.32$ ,  $p < .001$ ). Subjects with high levels of neuroticism reported more events and/or with more frequency.

In table 34 the means and standard deviations for all of the types of events of the SATS were computed for the groups with high and low levels of neuroticism. Then a student t-test was carried out to find the magnitude of the differences between groups.

Table 34. Differences between subjects with high and low levels of neuroticism in types of aggression (n = 332).

| Scale           | Neurotic<br>(n = 155) |      | Not neurotic<br>(n = 177) |      | T - score |
|-----------------|-----------------------|------|---------------------------|------|-----------|
|                 | Mean                  | SD   | Mean                      | SD   |           |
| Verbal          | .87                   | .58  | .41                       | .39  | 8.63***   |
| Physical        | .49                   | .48  | .25                       | .31  | 5.77***   |
| Indirect        | .63                   | .62  | .24                       | .34  | 7.41***   |
| Punishment      | .84                   | .57  | .53                       | .41  | 5.75***   |
| Severe bullying | 3.31                  | 5.71 | .90                       | 2.14 | 4.81***   |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

As shown in the above table, the more neurotic subjects reported much higher levels of all types of bullying and punishment. This is particularly true for verbal ( $t = 8.63$ ,  $p < .001$ ) and indirect aggression ( $t = 7.41$ ,  $p < .001$ ). Levels of physical aggression and punishment were virtually identical ( $t = 5.77$  and  $5.75$ ,  $p < .001$ , respectively). There were higher levels of severe bullying in neurotic subjects ( $t = 4.81$ ,  $p < .001$ ).

In table 35 the differences between the two groups for coping mechanisms are shown.

Table 35. Differences between subjects with high and low levels of neuroticism in coping mechanisms (n = 332).

| Scale                 | Neurotic<br>(n = 155) |      | Non-neurotic<br>(n = 177) |      | T - score |
|-----------------------|-----------------------|------|---------------------------|------|-----------|
|                       | Mean                  | SD   | Mean                      | SD   |           |
| Social Support        | 1.82                  | 1.07 | 1.39                      | 1.07 | 3.67***   |
| Problem Solving       | 1.71                  | 1.02 | 1.33                      | 1.08 | 3.51***   |
| Effort/Success        | 1.92                  | .95  | 1.84                      | 1.17 | .69       |
| Worrying              | 2.16                  | 1.02 | 1.67                      | 1.10 | 4.18***   |
| Invest Friends        | 2.13                  | 1.00 | 1.75                      | 1.08 | 3.30***   |
| Belonging             | 2.19                  | .97  | 1.82                      | 1.09 | 3.21***   |
| Hope                  | 1.93                  | .95  | 1.30                      | .93  | 6.12***   |
| No Coping             | 1.10                  | .77  | .38                       | .50  | 10.10***  |
| Tension Reduction     | 1.08                  | .76  | .30                       | .42  | 11.74***  |
| Social Action         | .49                   | .54  | .34                       | .61  | 2.28*     |
| Ignore Problem        | .83                   | .78  | .50                       | .80  | 4.90***   |
| Blame Self            | 1.42                  | 1.04 | .37                       | .62  | 11.33***  |
| Reserve for Self      | 1.54                  | 1.10 | .64                       | .81  | 8.52***   |
| Spiritual Help        | .92                   | .78  | .63                       | .76  | 3.47***   |
| Positive Thinking     | 1.79                  | 1.05 | 1.56                      | 1.31 | 1.87      |
| Professional Help     | 1.06                  | .94  | .87                       | .93  | 1.86      |
| Relaxing Diversions   | 2.16                  | 1.07 | 1.86                      | 1.21 | 2.37*     |
| Physical Distractions | 1.97                  | 1.26 | 1.97                      | 1.28 | .06       |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

There are varied results for the two groups when taking into consideration coping mechanisms. In the above table we can see some clear tendencies between the two groups.

- a) The most significant differences between the two groups are found with the coping mechanisms related to the interiorizing style of coping. Some of these are: Tension reduction ( $t = 11.74$ ), blaming oneself ( $t = 11.33$ ), no coping ( $t = 10.10$ ), and reserve for oneself ( $t = 8.52$ ). All are significant at the  $p < .001$  level.
- b) There is very little difference between the two groups for the mechanisms related to exteriorizing coping. For example: physical distractions ( $t = .06$ ), make effort and be successful ( $t = .69$ ), and positive thinking ( $t = 1.87$ ). All are found slightly more frequently in the high neuroticism group.
- c) However, there are some exteriorizing mechanisms that show significant differences. Among these are: Hope ( $t = 6.12$ ), worrying ( $t = 4.18$ ), and problem solving ( $t = 3.51$ ). All are significant to the  $p < .001$  level and are reported more by subjects with high levels of neuroticism.
- d) Reference to others coping is found to be used significantly more frequently among neurotic subjects, but the magnitudes of these differences are not as large as with interiorizing coping. For example: Spiritual help ( $t = 3.47$ ,  $p < .001$ ) and social action ( $t = 2.28$ ,  $p < .01$ ). Professional help does not show a significant difference ( $t = 1.86$ ).

### 3.5.2. The role of extraversion

In table 36 two groups of subjects, with high and low levels of extraversion, were compared using the means and standard deviations for the 11 symptom scales included in the MWES. The two samples used ( $n = 161$  and  $n = 166$ ) were obtained in the same way as the samples used in the neuroticism groups. These results show differences in

symptoms manifested by subjects with high and low levels of extraversion resulting from their experiences indicated in the SATS.

It is important to note that those with low levels of extraversion are not necessarily introverted. Theoretically, the dimension of extraversion-introversion as conceptualized by Eysenck is bipolar, meaning that two types of personality traits are contrasted, and subjects can be classified as one or the other. However, in practice, it is shown to be a one dimensional variable, meaning that subjects are found along the spectrum ranging from introverted to extraverted, those with lower scores being considered introverted. In our case, there were few subjects considered to be truly introverted, most were simply less extroverted than their peers. The small number of introverted subjects, and the much larger number of extraverted subjects, made it very difficult to carry out comparative analyses that would be valid. Due to this, groups were formed by dividing the subjects into three groups based on their scores obtained on this scale and the groups with the highest and lowest scores were compared. The groups are labeled as “low extraversion” and “high extraversion” to avoid the conception that all of the subjects in the low group are introverted, when this is not necessarily true. Some are truly quite introverted, while others are only slightly or are neither particularly introverted nor extraverted.

Table 36. Differences between subjects with high and low levels of extraversion in symptom scale score, means and standard deviations (n =327).

| Scale                    | Low Extraversion<br>(n=161) |      | High Extraversion<br>(n = 166) |      | T - score |
|--------------------------|-----------------------------|------|--------------------------------|------|-----------|
|                          | Mean                        | SD   | Mean                           | SD   |           |
| Depression               | .86                         | .75  | .59                            | .55  | 3.64***   |
| Dissociation             | .67                         | .69  | .51                            | .52  | 2.31*     |
| General<br>Maladjustment | .41                         | .47  | .30                            | .27  | 2.80**    |
| Hopelessness             | .63                         | .73  | .42                            | .50  | 2.97**    |
| Hypervigilance           | .83                         | .70  | .66                            | .59  | 2.41*     |
| Oppositional<br>Conduct  | .91                         | .72  | .84                            | .64  | .96       |
| Somatic<br>Symptoms      | .85                         | .76  | .74                            | .61  | 1.44      |
| Avoidance                | .74                         | .69  | .47                            | .47  | 4.16***   |
| Increased<br>Arousal     | .88                         | .70  | .73                            | .58  | 2.08*     |
| Impact                   | .65                         | .70  | .47                            | .50  | 2.61**    |
| Reexperiencing           | .27                         | .22  | .20                            | .18  | 2.80**    |
| Total events             | 5.26                        | 4.98 | 4.32                           | 2.86 | 2.11*     |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

- a) There are many significant differences between the groups of high and low extraversion. These differences are much less pronounced than those found in the groups with high and low neuroticism. The largest differences are found in: Avoidance ( $t = 4.16$ ,  $p < .001$ ), depression ( $t = 3.64$ ,  $p < .001$ ), hopelessness ( $t = 2.97$ ,  $p < .01$ ), reexperiencing, and general maladjustment (both  $t = 2.80$ ,  $p < .01$ ). All of these are found to be more frequent in subjects reporting low levels of extraversion, that is, more introverted subjects.
- b) The symptoms that showed no significant differences were oppositional conduct ( $t = .96$ ) and somatic symptoms ( $t = 1.44$ ).
- c) Introverted subjects reported experiencing more adverse events in school overall ( $t = 2.11$ ,  $p < .05$ ).

Below, in table 37, the differences between the two groups on the types of aggression they suffered as well as the total number and/or frequency of experiences has been explored.

Table 37. Differences between subjects with high and low levels of extraversion in types of aggression, means and standard deviations (n = 320).

| Scale      | Low Extraversion<br>(n = 156) |     | High Extroversion<br>(n = 164) |     | T - score |
|------------|-------------------------------|-----|--------------------------------|-----|-----------|
|            | Mean                          | SD  | Mean                           | SD  |           |
| Verbal     | .68                           | .65 | .55                            | .41 | 2.10*     |
| Physical   | .42                           | .55 | .32                            | .31 | 2.09*     |
| Indirect   | .51                           | .65 | .34                            | .37 | 2.97**    |
| Punishment | .68                           | .59 | .66                            | .46 | .26       |
| Bullying   | .86                           | .75 | .59                            | .55 | 3.64***   |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

The results of these analyses show the following:

- a) Subjects with lower levels of extraversion reported being victims of aggression significantly more than those with higher levels. Indirect aggression showed the largest difference ( $t = 2.97$ ,  $p < .01$ ), followed by verbal ( $t = 2.10$ ,  $p < .05$ ) and physical ( $t = 2.09$ ,  $p < .05$ ) aggression.
- b) There is no significant difference between the two groups for punishment ( $t = .26$ ).
- c) More introverted subjects reported suffering more overall aggressive events ( $t = 3.64$ ,  $p < .001$ ).

In the following table the results of the t-tests between the two groups for the different coping mechanisms are displayed.



Table 38. Differences between subjects with high and low levels of extraversion in coping mechanisms, means and standard deviations (n =320).

| Scale                 | Low Extraversion<br>(n = 156) |      | High Extraversion<br>(n = 164) |      | T - score |
|-----------------------|-------------------------------|------|--------------------------------|------|-----------|
|                       | Mean                          | SD   | Mean                           | SD   |           |
| Social Support        | 1.37                          | 1.08 | 1.91                           | 1.13 | -4.43***  |
| Problem Solving       | 1.21                          | 1.00 | 1.85                           | 1.11 | -5.25***  |
| Effort/Success        | 1.62                          | 1.07 | 2.23                           | 1.07 | -4.87***  |
| Worrying              | 1.71                          | 1.07 | 2.14                           | 1.07 | -3.55***  |
| Invest Friends        | 1.67                          | 1.04 | 2.32                           | 1.02 | -5.68***  |
| Belonging             | 1.76                          | 1.10 | 2.26                           | 1.00 | -4.27***  |
| Hope                  | 1.54                          | 1.02 | 1.69                           | .96  | -1.34     |
| No Coping             | .84                           | .83  | .54                            | .52  | 3.92***   |
| Tension Reduction     | .76                           | .67  | .61                            | .63  | 1.92      |
| Social Action         | .32                           | .48  | .49                            | .62  | -2.78**   |
| Ignore Problem        | .77                           | .87  | .60                            | .70  | 1.96      |
| Blame Self            | .93                           | .98  | .72                            | .84  | 2.06*     |
| Reserve for Self      | 1.24                          | 1.14 | .78                            | .75  | 4.24***   |
| Spiritual Help        | .74                           | .78  | .85                            | .81  | -1.26     |
| Positive Thinking     | 1.46                          | 1.11 | 1.94                           | 1.04 | -3.98***  |
| Professional Help     | .91                           | .86  | 1.15                           | .99  | -2.27*    |
| Relaxing Diversions   | 1.72                          | 1.16 | 2.35                           | 1.12 | -4.92***  |
| Physical Distractions | 1.55                          | 1.19 | 2.33                           | 1.72 | -5.64***  |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

Here there are very clear tendencies between the two groups, demonstrating important differences in coping styles. These are the following:

- a) The more introverted subjects showed generally higher levels of interiorizing coping. This can be seen in the following results: Reserve for self ( $t = 4.24$ ,  $p < .001$ ), no coping ( $t = 3.92$ ,  $p < .001$ ), blame self ( $t = 2.06$ ,  $p < .05$ ). The results for ignore the problem are practically significant ( $t = 1.96$ ).
- b) More extroverted subjects showed generally higher levels of exteriorizing coping. These include: Invest in close friends ( $t = -5.68$ ), physical distractions ( $t = -5.64$ ), problem solving ( $t = -5.25$ ), relaxing diversions ( $t = -4.92$ ), making an effort/being successful ( $t = -4.87$ ), belonging ( $t = -4.27$ ), and positive thinking ( $t = -3.98$ ). All are significant to the  $p < .001$  level.
- c) Reference to others coping was seen generally more often in more extroverted subjects showed more of this type of coping, although this difference wasn't

significant for all of the mechanisms. Social action ( $t = -2.78, p < .01$ ) showed the largest difference, followed by professional help ( $t = -2.27, p < .05$ ) and spiritual help ( $t = -1.26$ ).

### 3.5.3. General conclusions

The personality variables of neuroticism and extraversion have long been studied when determining individual differences on a wide variety of topics. Here, we are contemplating the role that these two factors play in the incidence of school aggression as well as the psychological ramifications that stem from these adverse events. There were many relevant differences with groups that manifested high and low levels of these personality characteristics.

The more neurotic subjects manifest much more psychological distress in general, particularly depression, post-traumatic stress, and hypervigilance. There are also much higher levels among these subjects of all types of aggression, punishment and overall frequent bullying. This is particularly true for verbal and indirect bullying. When studying victim types, it can be postulated that these subjects may be seen as better targets, cited in the literature as “provocative” victims, because they may act out, cry or fight back, reinforcing the bully’s actions. However, it must be taken into consideration that neurotic people generally pay more attention to and verbalize more frequently the negative aspects of their life, meaning that part of this difference could be due to a propensity to complain and not to a real difference in severity of symptoms or frequency of bullying. That said, the differences are so great that it is safe to assume that there is a very real disparity between the two groups.

There are also some interesting trends to be seen in the coping mechanisms used by more neurotic subjects. Mechanisms related to interiorizing coping, particularly tension reduction and self blame, are shown to be much more common among this group. Mechanisms involving exteriorizing coping showed less difference, except those of a more passive nature, such as worrying and hope, which were seen more often in neurotic students. Reference to others coping was also generally reported to be used slightly more by these subjects, especially seeking spiritual help.

In conclusion, those subjects manifesting high levels of neuroticism reported much more psychological distress, school victimization and generally used less adaptive and effective coping mechanisms.

The role of extraversion and the relationship it holds with victimization and symptomatology is less clear. More introverted subjects showed significantly higher levels of several types of psychological symptoms, particularly avoidance and depression. They reported significantly higher levels of bullying in general, indirect aggression, as well as verbal and physical aggression, but to a lesser degree. There were no differences in terms of punishment. When considering victim types, it is likely that these students are seen as easier targets, generally lacking large groups of friends to protect them and being less likely to fight back. When looking at the coping mechanisms more frequently used by more introverted people we notice, primarily, that only those mechanisms related to interiorizing are seen more in these subjects. They typically react by reserving the problem for themselves, doing nothing, or blaming themselves. Extroverted people are more likely to use exteriorizing methods, such as sports, investing in close friends and directly solving the problem. One coping mechanism that was, somewhat surprisingly, seen more in extraverted subjects was worrying. Here, in this scale, worrying consists of being concerned with the future of the subject as well as the world in general. It is not representative of a fear or continual mulling over of a specific present situation. This concern could either be seen as constructive, as the recognition of a situation and the effects it may have, or counterproductive, as an irrational fear of the future. These subjects also reported using slightly more professional help, organized social action and spiritual help.

To conclude, more introverted subjects generally manifested more psychological symptoms and more aggression from their peers. They are shown to use less adaptive forms of coping as well. The differences between these groups are not as pronounced as the groups with high and low levels of neuroticism. The literature regarding the role of extraversion in problems of school aggression and their consequences has been ambivalent in the past, some studies citing a non-existent or very minor role of this personality characteristic while others consider it to be an important factor. What we have seen here shows important differences in the incidence of school aggression and a

generally worse psychological outcome for more introverted subjects, and that this phenomenon could be due, in part, to maladaptive or nonexistent coping practices.

### 3.6. The role of coping: Comparing levels of coping styles

In this section we will study the role that coping styles and mechanisms play in the psychological symptoms that students experience as a result of aggression suffered in school. We will take into consideration three types of coping: Interiorizing, Exteriorizing and Reference to Others. In objective 3, put forward in chapter one of this paper, we find the hypothesis that suggests that the use of different mechanisms could be linked more frequently to specific psychological symptoms and victimization in general. We anticipated higher levels of interiorizing coping to be linked to higher levels of symptoms and more specifically to depression, PTSD and avoidance. It is also thought that the levels of victimization would be higher for this group. The differences between these groups would be greater than those for the other coping styles.

#### 3.6.1. The role of exteriorizing coping

Exteriorizing coping is characterized by an emphasis being placed by the individual on friendship (social support, investing in close friends and belonging) as well as social interaction (relaxing diversions and physical distractions). Additionally, there is a conscious effort to think about the problem and better the situation in a constructive manner (Problem solving, making an effort and being successful, focusing on the positive, worry and hope).

Here, in the following tables, we will compare groups of students with high and low levels of exteriorizing coping. The method followed to obtain these subsamples was the same used in the groups of high and low neuroticism and extraversion. That is, the sample of those who filled out the entire questionnaire was divided into three similarly sized groups based on their scores on the items related to exteriorizing coping. The groups with the lowest scores and the highest scores were used, eliminating those subjects with mid-range scores.

In table 39, shown below, two groups of subjects, with high and low levels of exteriorizing coping, were compared using the means and standard deviations for the personality characteristics of neuroticism and extraversion. The two samples were obtained in the same way as the samples used in the neuroticism and extraversion groups. These results show the differences in personality that subjects with high and low levels of exteriorizing coping manifest.

Table 39. Means, standard deviations and t-scores for students with high and low levels of exteriorizing coping on personality scales. (n = 300)

| Scale        | Low Exteriorizing Coping (n = 150) |     | High Exteriorizing Coping (n = 150) |     | T - score |
|--------------|------------------------------------|-----|-------------------------------------|-----|-----------|
|              | Mean                               | SD  | Mean                                | SD  |           |
| Neuroticism  | .40                                | .23 | .51                                 | .21 | -4.08***  |
| Extraversion | .68                                | .16 | .78                                 | .15 | -5.26***  |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

Students manifesting high levels of exteriorizing coping showed significantly more neuroticism and, especially, extraversion than the group of students who reported using exteriorizing coping less frequently. According to the theories of Eysenck, this combination of personality traits is found in people he calls “hysterical”.

The differences between these two groups were also studied with regards to the type of aggression and bullying suffered. These results are shown in table 40.

Table 40. Means, standard deviations and t-scores for students with high and low levels of exteriorizing coping on types of aggression. (n = 326)

| Scale          | Low Exteriorizing Coping (n =164) |      | High Exteriorizing Coping (n =162) |      | T - score |
|----------------|-----------------------------------|------|------------------------------------|------|-----------|
|                | Mean                              | SD   | Mean                               | SD   |           |
| Verbal         | .49                               | .53  | .73                                | .56  | -3.99***  |
| Physical       | .29                               | .39  | .40                                | .45  | -2.26*    |
| Indirect       | .30                               | .47  | .52                                | .60  | -3.63***  |
| Punishment     | .65                               | .50  | .70                                | .51  | -.79      |
| Total Bullying | 3.46                              | 5.26 | 5.49                               | 4.27 | -3.39***  |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

The differences between the two groups here were more varied:

- a) The largest difference between the two groups were found to be for verbal ( $t = -3.99, p < .001$ ) and indirect aggression ( $t = -3.63, p < .001$ ), both being more frequent in students reporting higher levels of exteriorizing coping.
- b) A smaller but still significant difference between the two groups was shown, in which students with high exteriorizing coping experienced more physical aggression ( $t = -2.26$ ).
- c) There was no difference between the two groups for punishment.
- d) When looking at the total levels of bullying (using the more common events) the students that use exteriorizing coping more frequently also reported being bullied more by their peers.

Using the same two groups of students, we studied the psychological symptoms reported as a result of their experiences of aggression in school. The results are shown in table 41.

Table 41. Differences in symptom scale scores between students with low and high levels of exteriorizing coping. (n= 326).

| Scale                 | Low Exteriorizing Coping<br>(n=164) |      | High Exteriorizing Coping<br>(n =162) |      | T - score |
|-----------------------|-------------------------------------|------|---------------------------------------|------|-----------|
|                       | Mean                                | SD   | Mean                                  | SD   |           |
| Depression            | .47                                 | .57  | .94                                   | .77  | -6.24***  |
| Dissociation          | .35                                 | .45  | .77                                   | .66  | -6.74***  |
| General Maladjustment | .23                                 | .28  | .44                                   | .36  | -5.69***  |
| Hopelessness          | .36                                 | .58  | .63                                   | .65  | -3.99***  |
| Hypervigilance        | .45                                 | .53  | 1.01                                  | .74  | -7.86***  |
| Oppositional Conduct  | .69                                 | .67  | .97                                   | .65  | -3.73***  |
| Somatic Symptoms      | .52                                 | .55  | .95                                   | .75  | -5.92***  |
| Increased Arousal     | .54                                 | .56  | 1.00                                  | .69  | -6.67***  |
| Avoidance             | .42                                 | .54  | .77                                   | .67  | -5.30***  |
| Impact                | .16                                 | .18  | .29                                   | .23  | -5.81***  |
| Reexperiencing        | .33                                 | .47  | .76                                   | .68  | -6.66***  |
| Total Events          | 3.91                                | 6.30 | 5.42                                  | 4.27 | -3.39***  |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

The results of these analyses show the following:

- a) There are many very significant differences between the groups with high and low levels of exteriorizing coping. Those students who reported more exteriorizing coping also manifested more symptomatology of all types.
- b) The scales that demonstrate the most differences are: Hypervigilance ( $t = -7.86, p < .001$ ), dissociation ( $t = -6.74, p < .001$ ), increased arousal ( $t = -6.67, p < .001$ ), and reexperiencing ( $t = -6.66, p < .001$ ).
- c) The scales that show the least amount of difference, although still quite significant, are: oppositional conduct ( $t = -3.73, p < .001$ ), hopelessness ( $t = -3.99, p < .001$ ) and avoidance ( $t = -5.30, p < .001$ ).
- d) There were also significantly more adverse events reported by students that use externalizing coping more frequently ( $t = -3.39, p < .001$ ).

### 3.6.2. The role of interiorizing coping

In tables 42, 43 and 44, two groups of subjects, with high and low levels of interiorizing coping, were compared using the means and standard deviations for personality variables, types of aggression and bullying and the 11 symptom scales included in the MWES. The two samples were obtained in the same way as the samples used in the exteriorizing coping groups.

Interiorizing coping is characterized by an avoidance of the problem (lack of coping, ignoring the problem), indirectly and temporarily trying to lessen the anxiety produced (tension reduction) and interiorizing the situation, which can be due to embarrassment or shame (keeping the problem for oneself, self blame). Considering the research presented in the introduction, and according to Hypothesis 3.4., we expect this type of coping style to be the least adaptive and counterproductive of the three. We anticipate that those that manifest higher levels of interiorizing coping to have much higher

incidences of aggression and to suffer greater levels of adverse psychological symptoms.

Table 42. Means, standard deviations and t-scores for students with high and low levels of interiorizing coping on personality scales. (n =296)

| Scale        | Low Interiorizing Coping (n = 151) |     | High Interiorizing Coping (n = 145) |     | T - score |
|--------------|------------------------------------|-----|-------------------------------------|-----|-----------|
|              | Mean                               | SD  | Mean                                | SD  |           |
| Neuroticism  | .33                                | .20 | .63                                 | .20 | -12.79*** |
| Extraversion | .75                                | .15 | .69                                 | .18 | 3.14**    |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

Here, it is quite clear that those who reported using interiorizing coping more frequently showed much higher levels of neuroticism ( $t = -12.79, p < .001$ ) and significantly lower levels of extraversion ( $t = 3.14, p < .01$ ) than those who use less interiorizing coping. These are considered to be “anxious” people according to Eysenck’s theory.

The findings on the type of aggression and general bullying also prove to be particularly interesting.

Table 43. Means, standard deviations and t-scores for students with high and low levels of interiorizing coping on types of aggression. (n = 244)

| Scale          | Low Interiorizing Coping (n =121) |      | High Interiorizing Coping (n =123) |      | T - score |
|----------------|-----------------------------------|------|------------------------------------|------|-----------|
|                | Mean                              | SD   | Mean                               | SD   |           |
| Verbal         | .43                               | .45  | .91                                | .63  | -7.72***  |
| Physical       | .25                               | .33  | .54                                | .56  | -5.80***  |
| Indirect       | .22                               | .36  | .68                                | .67  | -7.69***  |
| Punishment     | .56                               | .47  | .81                                | .55  | -4.34***  |
| Total Bullying | 2.74                              | 4.14 | 7.29                               | 7.52 | -6.77***  |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

- a) Those who showed higher levels of interiorizing coping also reported significantly more aggression of all types as well as overall bullying.



- b) The largest differences between the two groups were with verbal ( $t = -7.72$ ,  $p < .001$ ) and indirect ( $t = -7.69$ ,  $p < .001$ ) aggression.
- c) Smaller, but still very important t-scores were found with physical aggression ( $t = -5.80$ ,  $p < .001$ ) and punishment ( $t = -4.34$ ,  $p < .001$ )
- d) Those who turn to interiorizing coping to deal with their problems also suffer much more bullying in general ( $t = -6.77$ ,  $p < .001$ ).

Symptom levels were also much higher in those that rely on interiorizing coping.

Table 44. Differences in symptom scale scores between students with low and high levels of interiorizing coping. (n= 323).

| Scale                 | Low Interiorizing Coping (n=163) |      | High Interiorizing Coping (n=160) |      | T - score |
|-----------------------|----------------------------------|------|-----------------------------------|------|-----------|
|                       | Mean                             | SD   | Mean                              | SD   |           |
| Depression            | .28                              | .30  | 1.31                              | .69  | -15.73*** |
| Dissociation          | .22                              | .30  | .99                               | .72  | -12.73*** |
| General Maladjustment | .16                              | .22  | .56                               | .45  | -10.18*** |
| Hopelessness          | .16                              | .23  | 1.02                              | .73  | -14.31*** |
| Hypervigilance        | .32                              | .34  | 1.27                              | .72  | -15.08*** |
| Oppositional Conduct  | .49                              | .49  | 1.30                              | .68  | -12.24*** |
| Somatic Symptoms      | .39                              | .41  | 1.20                              | .79  | -11.60*** |
| Arousal               | .36                              | .35  | 1.31                              | .69  | -15.79*** |
| Avoidance             | .22                              | .24  | 1.14                              | .67  | -16.42*** |
| Impact                | .11                              | .13  | .37                               | .23  | -12.49*** |
| Reexperiencing        | .21                              | .30  | .96                               | .74  | -12.10*** |
| Total events          | 3.31                             | 3.21 | 6.82                              | 4.88 | -7.67***  |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

The results of these analyses show the following:

- a) There are very significant differences between the two groups on all of the symptom scales.

- b) The most significant differences are found with: Avoidance ( $t = -16.42$ ,  $p < .001$ ) increased arousal ( $t = -15.79$ ,  $p < .001$ ), depression ( $t = -15.73$ ,  $p < .001$ ) and hypervigilance ( $t = -15.08$ ,  $p < .001$ ).
- c) The least significant difference, although still significant, is with general maladjustment ( $t = -10.18$ ,  $p < .001$ ).
- d) There is also an important difference in the total number of adverse events experienced in school ( $t = -7.67$ ,  $p < .001$ )

### 3.6.3. The role of reference to others coping

In tables 45, 46 and 47 two groups of subjects, with high and low levels of reference to others coping, were compared using the means and standard deviations for personality variables, types of aggression and bullying and the 11 symptom scales included in the MWES. The two samples were obtained in the same way as the samples used in the exteriorizing and interiorizing coping groups.

Reference to others coping is characterized by the consultation or help seeking of a qualified third party (teacher or school official, counselor or psychologist) or peers (social action). This type of coping also includes seeking spiritual help or guidance (through prayer or support within the church).

Table 45. Differences in symptom scale scores between students with low and high levels of reference to others coping. ( $n = 323$ ).

| Scale        | Low Reference to Others Coping ( $n = 165$ ) |     | High Reference to Others Coping ( $n = 158$ ) |     | T - score |
|--------------|--|-----|---|-----|-----------|
|              | Mean   | SD  | Mean  | SD  |           |
| Neuroticism  | .42  | .23 | .50   | .21 | -3.28***  |
| Extraversion | .71  | .16 | .76   | .15 | -2.81**   |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

Those who report using more reference to others coping manifest significantly higher levels of both neuroticism and extraversion. Although these differences are less

pronounced, the pattern is similar to that found in subjects that frequently use exteriorizing coping.

Table 46. Means, standard deviations and t-scores for students with high and low levels of reference to others coping on types of aggression. (n = 347)

| Scale          | Low Reference to Others Coping (n = 182) |      | High Reference to Others Coping (n = 165) |      | T - score |
|----------------|--|------|---|------|-----------|
|                | Mean                                     | SD   | Mean                                      | SD   |           |
| Verbal         | .51                                      | .47  | .76                                       | .58  | -4.44***  |
| Physical       | .29                                      | .58  | .45                                       | .50  | -3.57***  |
| Indirect       | .30                                      | .40  | .57                                       | .63  | -4.84***  |
| Punishment     | .63                                      | .47  | .69                                       | .53  | -1.17     |
| Total Bullying | 3.59                                     | 4.70 | 5.97                                      | 6.78 | -3.83***  |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

The types of aggression suffered by those who reported more reference to others coping showed generally higher levels, with some variation.

- a) The largest differences were seen, again, for indirect ( $t = -4.84, p < .001$ ) and verbal ( $t = -4.44, p < .001$ ) aggression.
- b) A more moderate, but still significant difference was found for physical aggression ( $t = -3.57, p < .01$ ).
- c) There was no significant difference found for punishment.
- d) The group reporting more reference to others coping also reported greater incidence of bullying ( $t = -3.83, p < .001$ ).

The analyses with symptom scales also yielded significant t-scores.

Table 47. Differences in symptom scale scores between students with low and high levels of reference to others coping. (n= 347).

| Scale                 | Low Reference to Others Coping (n=182) |      | High Reference to Others Coping (n =165) |      | T - score |
|-----------------------|--|------|--|------|-----------|
|                       | Mean                                   | SD   | Mean                                     | SD   |           |
| Depression            | .51                                    | .57  | .96                                      | .77  | -6.24***  |
| Dissociation          | .34                                    | .44  | .82                                      | .70  | -7.61***  |
| General Maladjustment | .22                                    | .23  | .48                                      | .45  | -6.91***  |
| Hopelessness          | .35                                    | .54  | .65                                      | .65  | -4.75***  |
| Hypervigilance        | .50                                    | .53  | 1.02                                     | .71  | -7.73***  |
| Oppositional Conduct  | .70                                    | .66  | .99                                      | .69  | -4.03***  |
| Somatic Symptoms      | .52                                    | .56  | .98                                      | .77  | -6.39***  |
| Arousal               | .56                                    | .55  | 1.02                                     | .68  | -6.97***  |
| Avoidance             | .43                                    | .52  | .80                                      | .69  | -5.74***  |
| Impact                | .17                                    | .17  | .29                                      | .22  | -5.54***  |
| Reexperiencing        | .30                                    | .48  | .79                                      | .67  | -6.41***  |
| Events Remembered     | 3.90                                   | 3.13 | 5.80                                     | 4.58 | -4.54***  |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

The results of these analyses show the following:

- a) All symptoms were experienced more by people with high levels of reference to others coping.
- b) The most significant differences were found for hypervigilance ( $t = -7.73$ ,  $p < .001$ ), dissociation ( $t = -7.61$ ,  $p < .001$ ), arousal ( $t = -6.97$ ,  $p < .001$ ), and somatic symptoms ( $t = -6.39$ ,  $p < .001$ ).
- c) The least were oppositional conduct ( $t = -4.03$ ,  $p < .001$ ) and hopelessness ( $t = -4.75$ ,  $p < .001$ ).
- d) There was also a significant difference between the two groups in the total number/frequency of events experienced. Subjects with higher levels of reference to others coping experienced more traumatic events ( $t = -4.54$ ,  $p < .001$ ).

### 3.6.4. General conclusions

In the study of adverse events and their impact on psychological well-being, an important factor in discerning individual processes and outcomes is to take into account the manner in which people cope with these negative life experiences. Here, we are concerned with how middle and high school students manage situations involving school aggression and frequent bullying. Carrying out factor analyses on 18 coping mechanisms included in the ACS scale has left us with three coping styles: Exteriorizing, Interiorizing, and Reference to Others. Each is composed of between three and ten coping mechanisms. In the introduction, after reviewing the existing literature, it was postulated that of the three, interiorizing coping would be the least adaptive to these stressful situations, coinciding with higher levels of victimization. Additionally, it was hypothesized that this coping style would also be the least efficient in protecting the individual from the negative consequences, coinciding with higher levels of psychological symptoms. It was thought that both exteriorizing and reference to others coping would be more conducive to psychological well-being, diminishing the psychological ramifications of aggression and being related with lower levels of victimization. The nature of the relationship between levels of victimization and coping is unclear in one important aspect, directionality. It is unknown if subjects report less coping in general because they have less to cope with or if their use of a particular coping style has helped them to avoid further problems at school. The literature on victim types leads us to believe that students who effectively cope with their problems are seen as less desirable targets by their peers, shielding them from further abuse.

Then, independent groups t-test analyses were carried out for groups of low and high levels for the three coping styles. Levels of neuroticism, extraversion, types of aggression, level of bullying and psychological symptoms were studied. The results for these analyses generally coincide with our hypotheses, however, an important point must be discussed. All of the groups with higher levels of coping styles, regardless of which one, showed higher levels for practically every variable studied. After carefully examining cases and response tendencies, the conclusion was reached that subjects, generally speaking, either marked higher or lower response options to the applicable items. This means that those who suffered more aggression also reported using more

coping mechanisms in general, to deal with their situations. Those who experienced fewer problems felt that they had less to cope with and therefore reported less coping.

In these general conclusions it is important to compare the types of coping styles looking at the relative differences between groups. The t-scores for the coping styles, although all significant, vary greatly among coping styles. All t-scores are significant at the .001 level unless indicated otherwise.

The first analyses were carried out with the personality variables of Neuroticism and Extraversion. The neuroticism t-scores for exteriorizing and reference to others coping were very similar (-4.08 and -3.28, respectively). The means for the two groups with high levels of these types of coping styles are also very similar. However, when we look at the t-score for interiorizing coping it is extremely high at -12.79, showing that those students that used interiorizing coping more manifested much more neuroticism than those who used more of the other types of coping. As far as extraversion is concerned, the two reference to others groups showed the least difference while the exteriorizing groups demonstrated a more important divergence ( $t = -2.81$  ( $p < .01$ ) and -5.26, respectively) while the trend was different for interiorizing, with those using interiorizing coping being more introverted ( $t = 3.14$ ).

The types and amount of aggression and bullying also showed differences between the students that have high levels of the three coping styles. The differences between the exteriorizing coping groups showed the lowest t-scores (from between -2.26 ( $p < .05$ ) and -3.99 for types of aggression and -3.15 for overall bullying). The means of the group with high levels of this coping style were also the lowest (.40 to .73 for aggression and 5.49 for bullying). The results were similar but slightly higher for those who use reference to others coping. The t-scores varied from -3.57 to -4.84 for aggression and -3.83 for bullying. The means for the group with high levels was virtually the same as the group with high levels of exteriorizing (from .45 to .76 for aggression and 5.97 for bullying). The t-scores for the interiorizing groups were much higher for all types of aggression (from  $t = -5.80$  to -7.69) and overall bullying ( $t = -6.77$ ), when compared with the other groups. The means for the high group were also significantly higher than the corresponding groups for the other coping styles (from .54 to .91 for aggression and 7.29 for bullying). These results indicate that interiorizing coping is less effective and

adaptive when facing school aggression, which could lead to more problems with peers in the future.

When considering the relative differences in the t-scores between the groups for adverse psychological symptoms, they were also very indicative of the relationship between interiorizing coping and psychological difficulties. The t-scores for exteriorizing coping (between those who use it more and less frequently) were between -3.73 and -7.86 and the means of the group with high levels were between .29 and 1.01. The majority of these scores are on the lower end of this range, with hypervigilance being quite a bit higher. Reference to others coping had similar results for the t-scores, between -4.03 and -7.73 as well as for the means (.29 to 1.02). Those who frequently use these coping styles reported more overall symptoms. All of these t-scores are significant, but again, an interesting conclusion can be made when comparing the three sets of results. Interiorizing coping has much higher t-test results for symptoms, from -10.18 to -16.42 with means for the high group ranging from .37 to 1.31. Comparing these results, we observe that there is a much greater difference between those who report using interiorizing coping more or less and that the group with high levels manifested much higher levels of all symptoms than the group of low interiorizing coping as well as those subjects that reported high levels of exteriorizing and reference to others coping. This leads us to the conclusion that the use of interiorizing coping is counterproductive and ineffective, leading to a worse psychological outcome when compared with exteriorizing and reference to others coping. Although the groups with high levels of the other types of coping also showed more symptomatology than their lower-level counterparts, this could be due to other factors, such as those who are not bullied or are not affected psychologically not feeling the need to cope with anything. Additionally, some subjects could report more coping of all three types, not having a particular style that they use more than others.

The results shown in the above section indicate that there is indeed a palpable difference between the three coping styles, particularly in the case of interiorizing coping. Students that use interiorizing coping frequently are generally much more neurotic and introverted than their peers that use this coping style less as well as those that use other coping styles. They have more problems with being victims of school aggression of all types and overall reiterated aggression, that is, bullying. They have

more psychological problems than their peers of all coping groups, and the symptoms they face more commonly are depression, post-traumatic stress and hypervigilance.

### 3.7. The predictive role of personality and bullying in post-traumatic and general symptomatology

With the t-test and means analyses carried out in the previous sections we are able to observe the differences between groups based on their levels of neuroticism, extraversion and their use (more or less frequent) of three different coping styles. The results have yielded very interesting information about the impact that these personality characteristics have on the incidence of victimization and psychological distress. The foundation has been laid for studying the nature of these differences and the predictive role that each of these five variables, as well as the amount of bullying experienced, have on each of the different psychological symptoms reported by the students. A step-wise regression analysis was run using the subjects that filled out the entire questionnaire (n = 447). The independent variables were the five personality variables (Exteriorizing, Internalizing and Reference to Others Coping, Neuroticism, and Extraversion) as well as the level of bullying. The level of bullying is determined by the overall score on the 20 most common directly experienced acts of aggression. The dependent variables used were the symptom scales, the total amount of symptoms experienced, and the total amount of PTSD symptoms experienced.

Table 48. Regression analysis. Personality characteristics and symptoms (n=447). (Table continued on the next page)

| Dependent Variables | R ; R <sup>2</sup> corrected (F <sub>gb</sub> , p)   | Typical Error | Independent Variables   | Standardized Beta                                     |
|---------------------|--|---------------|---|---|
| Avoidance           | .827; .680<br>F <sub>6,452</sub> = 163.32;<br>p<.001 | .56           | Interiorize<br>Bullying<br>Neuroticism<br>Exteriorize                                   | .57***<br>.29***<br>.19***<br>-.12**                  |
| Dissociation        | .718; .508<br>F <sub>6,452</sub> = 79.96;<br>p<.001  | .70           | Interiorize<br>Bullying<br>Ref. To Others<br>Neuroticism<br>Extraversion<br>Exteriorize | .43***<br>.30***<br>.16***<br>.15***<br>-.10*<br>.08* |



|                       |   |     |   |   |
|-----------------------|---|-----|---|---|
| Depression            | .806; .645<br>$F_{6,452} = 139.61;$<br>$p < .001$ | .59 | Interiorize<br>Bullying<br>Neuroticism  | .52***<br>.28***<br>.21***                            |
| General Maladjustment | .665; .435<br>$F_{6,452} = 59.77;$<br>$p < .001$  | .73 | Interiorize<br>Bullying<br>Ref. to Others<br>Exteriorize                                  | .44***<br>.28***<br>.22***<br>-.16**                  |
| Hopelessness          | .753; .561<br>$F_{6,452} = 98.51;$<br>$p < .001$  | .66 | Interiorize<br>Bullying<br>Exteriorize<br>Neuroticism<br>Extraversion                     | .64***<br>.20***<br>-.20***<br>.13***<br>.07*         |
| Hypervigilance        | .774; .594<br>$F_{6,452} = 112.73;$<br>$p < .001$ | .63 | Interiorize<br>Bullying<br>Neuroticism<br>Ref. To Others                                  | .41***<br>.31***<br>.18***<br>.09*                    |
| Impact                | .671; .444<br>$F_{6,452} = 61.71;$<br>$p < .001$  | .75 | Interiorize<br>Bullying<br>Neuroticism  | .36***<br>.28***<br>.23***                            |
| Increased Arousal     | .769; .587<br>$F_{6,452} = 109.35;$<br>$p < .001$ | .64 | Interiorize<br>Bullying<br>Neuroticism<br>Extraversion                                    | .48***<br>.28***<br>.20***<br>.11***                  |
| Oppositional Conduct  | .644; .406<br>$F_{6,452} = 53.25;$<br>$p < .001$  | .78 | Interiorize<br>Bullying<br>Neuroticism<br>Extraversion                                    | .39***<br>.28***<br>.22***<br>.19***                  |
| Reexperiencing        | .711; .499<br>$F_{6,452} = 76.94;$<br>$p < .001$  | .70 | Interiorize<br>Bullying<br>Neuroticism<br>Ref. To Others                                  | .39***<br>.29***<br>.19***<br>.09*                    |
| Somatic Symptoms      | .663; .432<br>$F_{6,452} = 59.15;$<br>$p < .001$  | .75 | Interiorize<br>Bullying<br>Neuroticism<br>Ref. To Others<br>Extraversion                  | .35***<br>.25***<br>.23***<br>.16***<br>.10*          |
| Total Symptoms        | .828; .681<br>$F_{6,452} = 164.32;$<br>$p < .001$ | .56 | Interiorize<br>Bullying<br>Neuroticism<br>Extraversion<br>Ref. To Others<br>Exteriorizing | .54***<br>.31***<br>.20***<br>.10***<br>.08*<br>-.08* |
| PTSD Symptoms         | .817; .663<br>$F_{6,452} = 151.47;$<br>$p < .001$ | .57 | Interiorize<br>Bullying<br>Neuroticism<br>Extraversion                                    | .51***<br>.31***<br>.22***<br>.07*                    |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

The results of the regression analyses were the following:

- a) The best predictor for all of the psychological symptoms studied here is the use of internalizing coping. This is especially true for: Hopelessness, avoidance, depression, and increased arousal. It is also the greatest predictor for overall symptomatology and PTSD symptoms.
- b) Another very important predictor for psychological problems was the level of bullying experienced. This was the second most relevant predictor for all symptom scales. It was also the second most relevant variable for total symptoms and PTSD symptoms.
- c) Neuroticism was also seen as a predictor, although to a lesser degree, for most of the symptoms. It was the third most relevant for: Somatic symptoms, impact, depression, reexperiencing, arousal, oppositional conduct, avoidance and hypervigilance. Additionally, it was the third most relevant for PTSD symptoms and total symptoms. It is the fourth most predictive for dissociation and hopelessness and does not appear for general maladjustment.
- d) The use of reference to others coping played a relatively minor role in the prediction of some psychological symptoms. These are: Dissociation, general maladjustment, somatic symptoms, reexperiencing and hypervigilance. This was also true for total symptoms.
- e) Extraversion was also found to appear to a smaller degree in some variables, with relatively low predictive power. These symptoms are: Oppositional conduct, increased arousal, dissociation and hopelessness. Total symptoms and PTSD symptoms were also slightly influenced by this personality characteristic.
- f) There was a positive impact of the use exteriorizing coping on some psychological variables, meaning that the beta was negative. These are: General Maladjustment, hopelessness and avoidance. This means that the use of this coping style may act as a buffer in the development of these symptoms. This was also true for the total symptoms experienced.

To summarize, the variable found to have the most predictive power in general with the symptom scores was the use of interiorizing coping, found to be quite detrimental in the appearance of psychological symptoms. There were no dependent variables in which interiorizing was not the most significant variable. This was followed closely by the level of bullying victimization, also very relevant in all types of psychological symptoms.

Neuroticism also had generally high predictive power. It appeared as predictive for almost all of the dependent variables. Reference to others coping appeared in about half of the cases, playing a different predictive role in each. Extraversion was found to have predictive power in only some of the scales, while exteriorizing coping was shown to be predictive in some cases, and with a negative value, implying that this coping style is effective in avoiding the development of some types of psychological symptoms.

The positive beta values that are shown when examining the predictive power of extraversion are, at first glance, confusing. It was not anticipated that extraversion would be predictive of psychological symptoms. This could be explained by the relatively small number of introverted subjects. Frequency analyses revealed that there are only 19 very introverted subjects and 37 that are quite introverted. Since the regression analyses do not take into account the victimization status of these students, it is logical to assume that, keeping in mind prevalence statistics, many of these students were not bullied. This leaves us with a very small group of introverted subjects that are likely to suffer psychological consequences as a result of bullying. Consequently, the regression results, generally seen to be low or non-significant positive betas, are most likely representing a tendency that those who are less extraverted (but not necessarily introverted) are more likely suffer psychological symptoms.

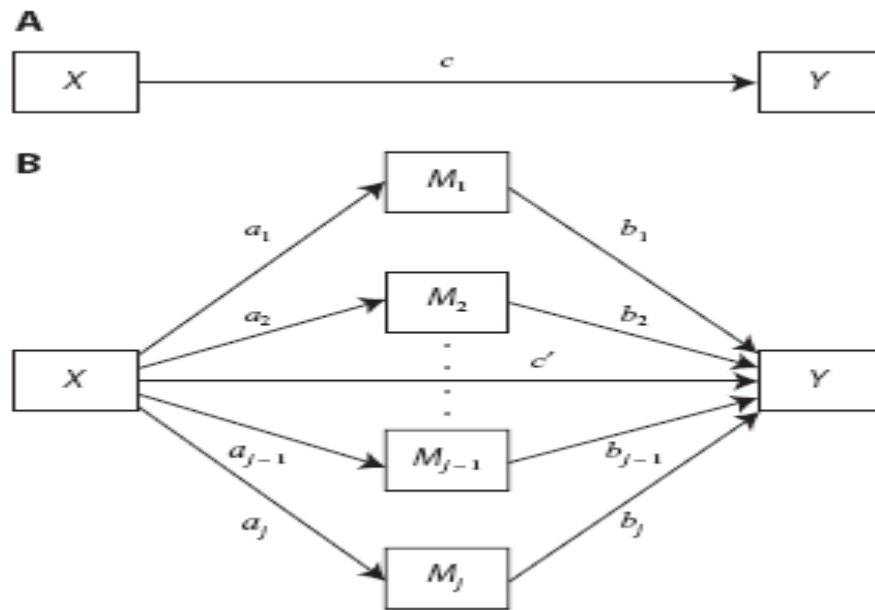
### 3.8. The mediating role of personality and coping in the relationship between bullying and psychological symptoms

#### 3.8.1. The theory of mediation and multiple mediation

Mediation is a relatively novel method to quantify the indirect effects of certain variables on the relationship that exists between an independent variable (here we will use the example bullying) and a dependent variable (psychological symptoms). The researchers Baron and Kenny (1986) are pioneers in this particular field and more recently Preacher and Hayes (2008) have further developed the method to include the testing of multiple mediators simultaneously, providing macros that can be used with different statistical programs.

As these techniques are fairly new, it is important to present the theory behind these techniques, in order to provide a context for the interpretation of these results. Mediation first tests the existence of a quantifiable relationship between an independent variable (X) and a dependent variable (Y). Once this relationship is established to be significant and the effect size is quantified, other variables, called mediators (M) can be tested to see how the causal effect of X on Y is conditioned by the presence of M, which is the indirect effect that X has on Y through M. This relationship can be depicted graphically in the following manner (Preacher and Hayes, 2008):

Figure 2.



In the above figure 2 (A) X directly affects Y; this total effect is called the  $c$  path.

In figure 2 (B) X is hypothesized to have an indirect effect on Y through M mediators. This indirect effect is called the  $c'$  path. The  $a$  paths represent the relationship that the independent variable has with the mediators, while the  $b$  paths are those that connect the mediators to the dependent variables. The  $c'$  path is what remains after the effects of all of the mediating variables are removed.

For these analyses to be significant and informative it is necessary for the relationships between the independent variable (IV) and the mediator as well as between the dependent variable (DV) and the mediator to be significant. Additionally, the portion of the relationship between the IV and DV that is not explained by the mediators ( $c'$  path) must be smaller than the total relationship between the IV and DV ( $c$  path). If all of these paths are shown to be significant, then the mediating variable tested truly does mediate in a significant manner the relationship, having a quantifiable influence. For the purposes of this research, supposing M is Neuroticism, if all paths are significant, this means that the level of neuroticism a person manifests can be a determining factor in the amount of psychological symptoms suffered as a result of bullying in school. More recently, researchers (Aiken, West, Woodward, Reno and Reynolds, 1994; Preacher and Hayes, 2008) have simultaneously studied the indirect

effects of several mediators. There are several advantages of this analysis, identified by Preacher and Hayes (2008) as the following:

“First, testing the total indirect effects of X on Y is analogous to conducting a regression analysis with several predictors, with the aim of determining whether an overall effect exists. If an effect (in this case mediation) is found, one can conclude that the set of j variables mediates the effect of X on Y. Second, it is possible to determine to what extent specific M variables mediate the X-Y effect, conditional on the presence of other mediators in the model. Third, when multiple putative mediators are entertained in a multiple mediation model, the likelihood of perimeter bias due to omitted variables is reduced... Fourth, including several mediators in one model allows the researcher to determine the relative magnitudes of the specific indirect effects associated with all mediators.”

This not only allows for the study of several variables in one analysis but, more importantly, allows for the comparison of these potential mediators, determining which are the most relevant.

In April 2009, Preacher and Kenny presented a macro that allows for the computation of the effects of multiple mediators using several common statistical programs, including SPSS. This has greatly facilitated the task of conducting multiple mediation analyses.

### 3.8.2. Multiple Mediation Analyses: Results

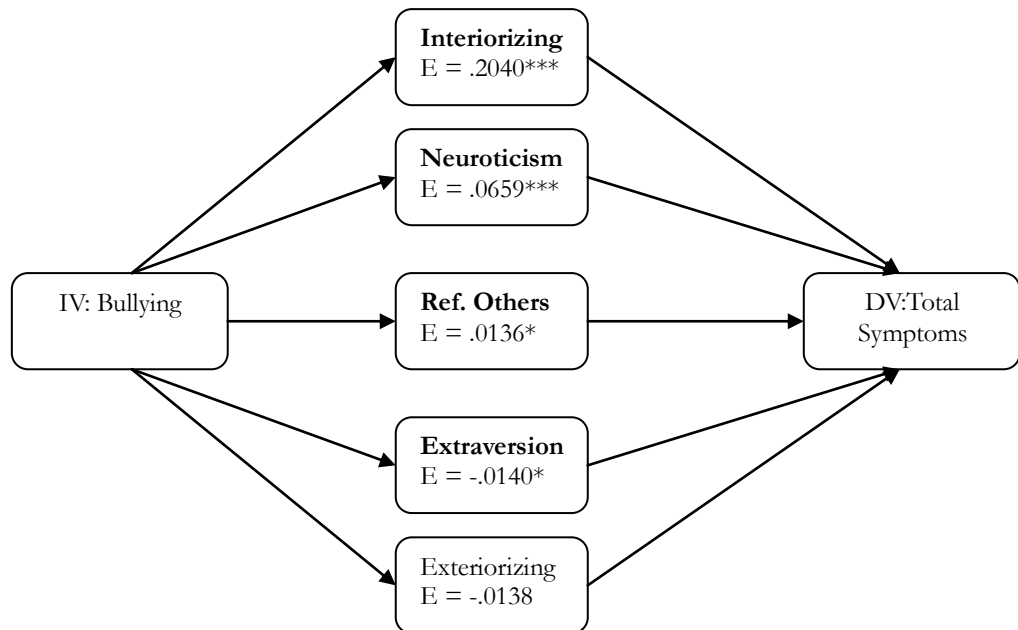
In this section many figures demonstrating the results of the mediation analyses are shown. The figures are simplified to include only the most critical information: that is, the effect size and the significance values of the paths joining the IV and the DV as well as the effect size of the individual mediating variables. The mediating variables are placed in order of significance (from highest to lowest). All potential mediating variables are shown in the first set of figures, not only those found to be significant. Those that are significant are shown in bold print.

### 3.8.2.1. The mediating role of personality and coping

Here, in this first section of figures, the independent variable studied is the degree of bullying experienced by the subject (based on the 20 most common directly experienced acts), and the dependent variables are total symptoms, PTSD symptoms, and all of the 11 symptom scales individually. The mediating variables, for all analyses, are: Neuroticism, Extraversion, Exteriorizing Coping, Interiorizing Coping, and Reference to Others Coping. For all of these figures: E is the Effect size, the levels of significance are \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$ . The remaining pertinent information: the standard errors, z- scores, and bias corrected and accelerated confidence intervals can be found in the tables located in Appendix II.

Before commenting the results individually, it is important to point out that all of the total effects ( $c$  paths) and all of the direct effects ( $c'$  paths) of the independent variable (bullying) on the dependent variable are significant to the  $p < .001$  level. This is a prerequisite to carrying out the rest of the mediation analyses. If there is no significant relationship between the two, there can be no significant mediation by any other variable. In this case, as all the relationships are significant, this is not a problem. All of these analyses included 448 subjects of the sample.

Figure 3. Effect of mediators on the relationship Bullying - Total Symptoms.



Total Effect Size of IV on DV ( $c$  path) =  $.5427^{***}$

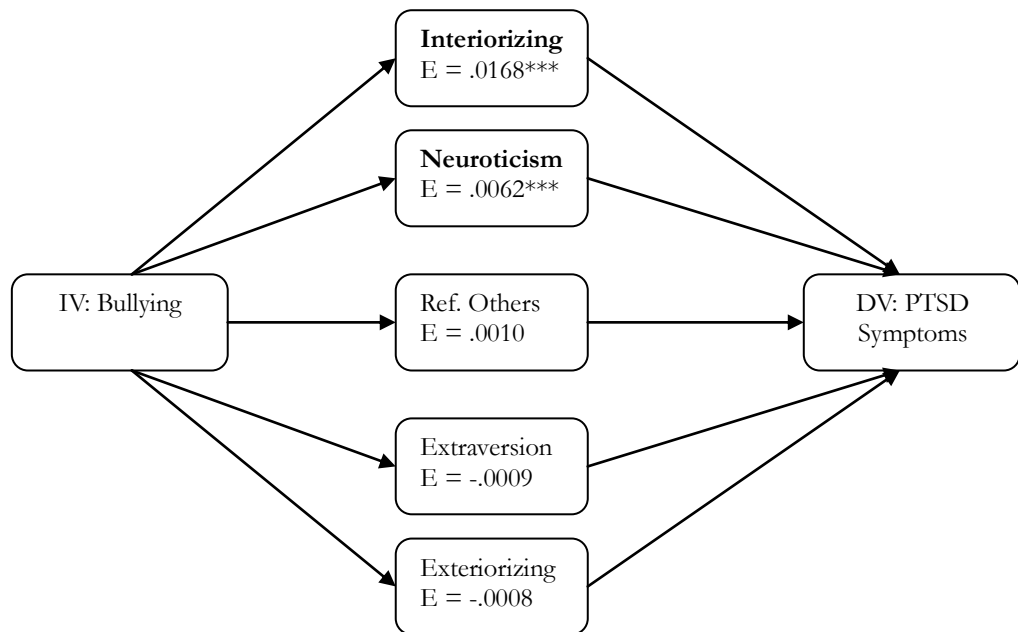
Direct effect of IV on DV ( $c'$  path) =  $.2817^{***}$

The first analysis carried out studied the mediating role of personality and coping in the relationship between level of bullying and the total amount of symptoms manifested. In this case, all of the variables studied except exteriorizing coping had a significant impact on this relationship, although the magnitude and nature of this role varies. The greatest mediating effect was found to be interiorizing coping, with an effect size and z-score far superior to all other variables. This is followed by neuroticism, also very significant. These two variables contribute, in large part, to the development of psychological symptoms as a result of bullying victimization. Reference to others coping has a smaller, but also positive, effect on this relationship, meaning that the use of this kind of coping can also increase the likelihood of developing psychological symptoms. Two variables had a negative mediating effect. Extroverted students showed less propensity to developing psychological symptoms resulting from victimization. The same is true for those that use exteriorizing coping, although this effect size is not significant. This coping style seems, to some degree, to buffer the victim from psychological problems. Actively confronting problems and taking advantage of their social circle allows for a better psychological adaptation to the situation. In the figures above,



the effect size of exteriorizing is similar to that of extraversion, however, due to a smaller standard error, the z-score of extraversion is more significant.

Figure 4. Effect of mediators on the relationship Bullying - PTSD Symptoms.



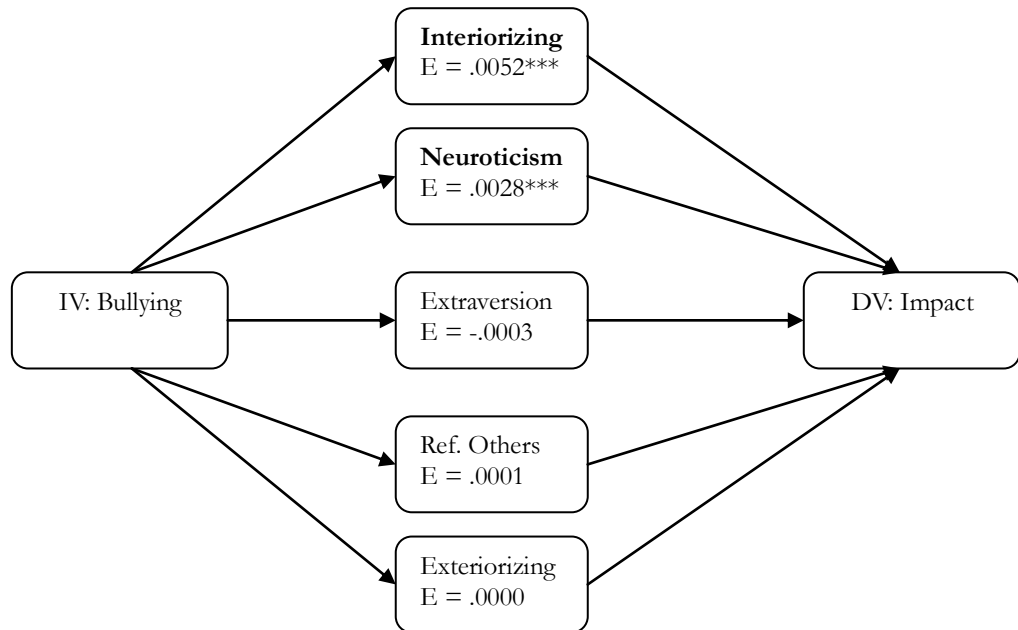
Total Effect Size of IV on DV ( $c$  path) = .0476\*\*\*

Direct effect of IV on DV ( $c'$  path) = .0252\*\*\*

For the symptoms related to post-traumatic stress disorder, the results are similar to those of total symptoms. The effect sizes are smaller, due in large part to the method of coding the points in the scales (for total symptoms all of the points from all items were added, while for PTSD symptoms the mean of the four subscales was used). Here, for these symptoms, the first two mediators were found to be relevant in the same order and significant to the same degree. Here we find interiorizing coping and neuroticism to be detrimental to having a more favorable psychological outcome, while extraversion and exteriorizing coping are found to act as buffers to this relationship, although not to a significant degree.

In the following figures we will comment on the mediating role that each of these five variables has on the relationship between bullying and the eleven different symptom scales separately.

Figure 5. Effect of mediators on the relationship Bullying - Impact.

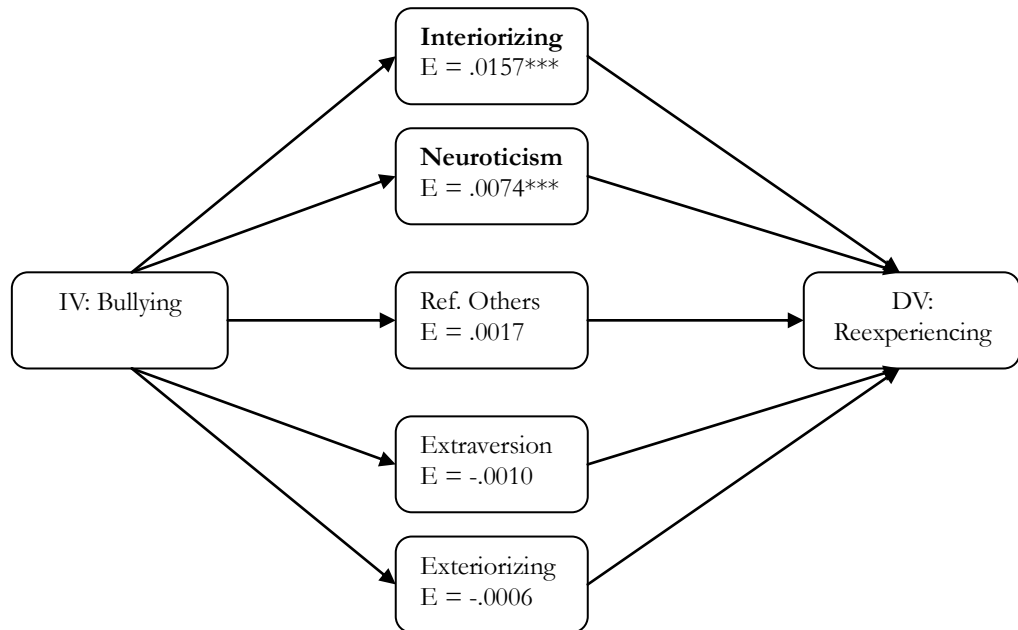


Total Effect Size of IV on DV ( $c$  path) =  $.0171^{***}$

Direct effect of IV on DV ( $c'$  path) =  $.0092^{***}$

The relationship between bullying and impact of the event only yielded two significant mediators, interiorizing and neuroticism. Extraversion, reference to others coping and exteriorizing showed no effect on the relationship at all. As we will see later, the effect sizes are much smaller than those for the other dependent variables, likely due to the scale only being composed of four items.

Figure 6. Effect of mediators on the relationship Bullying - Reexperiencing.

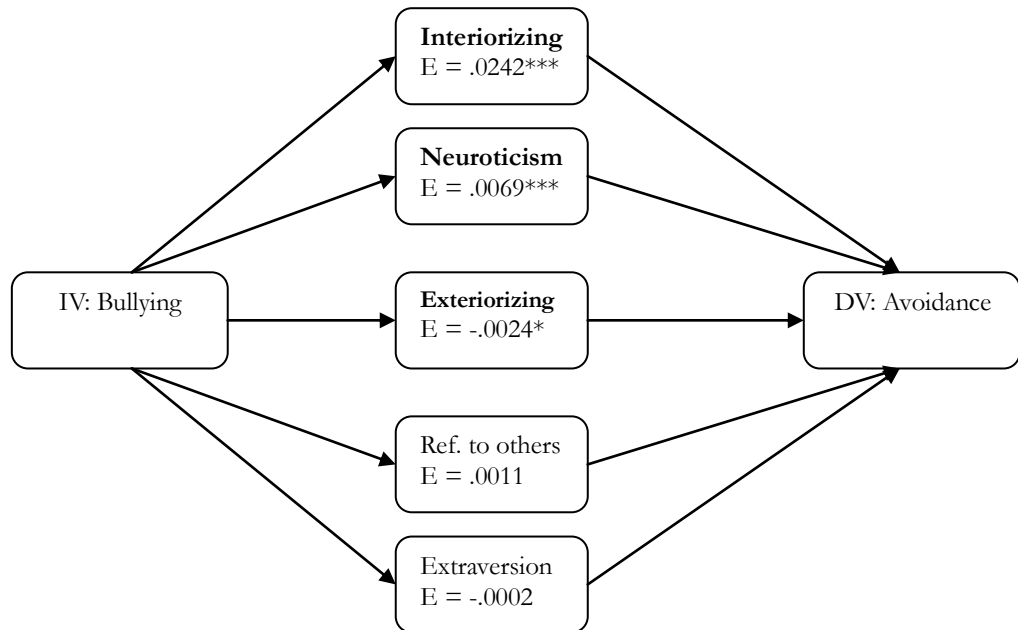


Total Effect Size of IV on DV ( $c$  path) =  $.0542^{***}$

Direct effect of IV on DV ( $c'$  path) =  $.0309^{***}$

For reexperiencing, another PTSD symptom, the results are similar to those of impact, although the effect sizes are generally higher. Interiorizing and Neuroticism are both significant mediators, while reference to others coping has a relatively low positive impact and extraversion and exteriorizing showed slight negative effects.

Figure 7. Effect of mediators on the relationship Bullying - Avoidance.

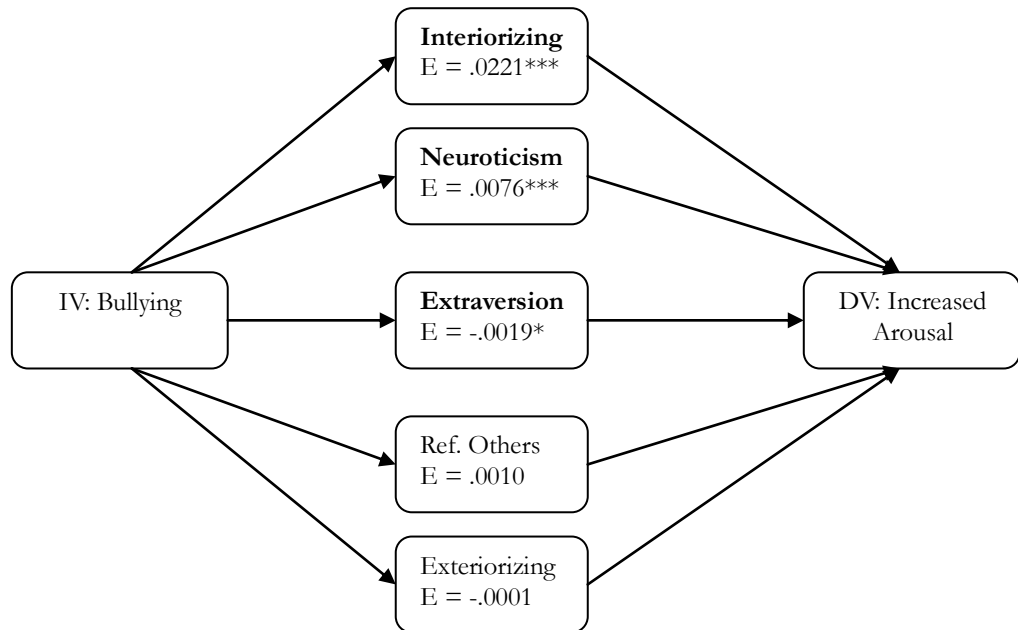


Total Effect Size of IV on DV ( $c$  path) = .0598\*\*\*

Direct effect of IV on DV ( $c'$  path) = .0303\*\*\*

For the symptoms of avoidance, we find that interiorizing is a variable that greatly mediates the relationship, much more than any other. This is followed by neuroticism, also very significant, and a negative effect of exteriorizing coping. Again, we find that there is no significant mediation by reference to others coping or extraversion. Those victims of bullying that are neurotic and often use interiorizing coping are more likely to manifest avoidance symptoms, while those who use exteriorizing coping have a better psychological outcome than their peers.

Figure 8. Effect of mediators on the relationship Bullying – Increased Arousal.

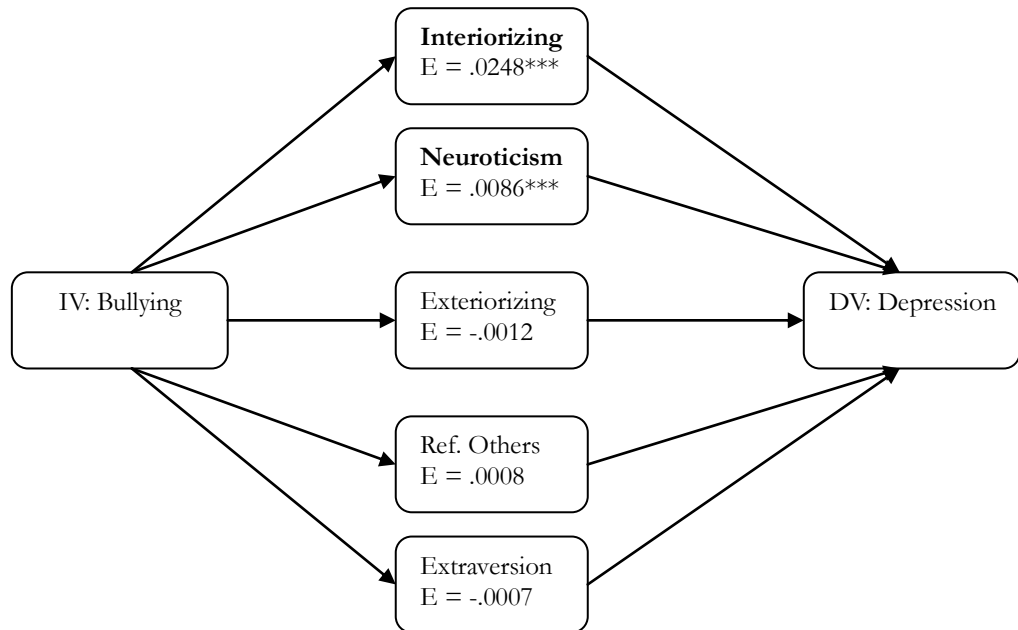


Total Effect Size of IV on DV ( $c$  path) =  $.0591^{***}$

Direct effect of IV on DV ( $c'$  path) =  $.0305^{***}$

For the analysis with increased arousal, the results were slightly different. It is clear that interiorizing and neuroticism play a key role in the relationship between bullying and increased arousal, but here, we observe that extraversion is also an important indicator. Those students that are more introverted manifest more physiological arousal (characterized by an increased activation of the nervous system and alertness towards threatening situations). Reference to others and exteriorizing coping had no significant impact.

Figure 9. Effect of mediators on the relationship Bullying - Depression.

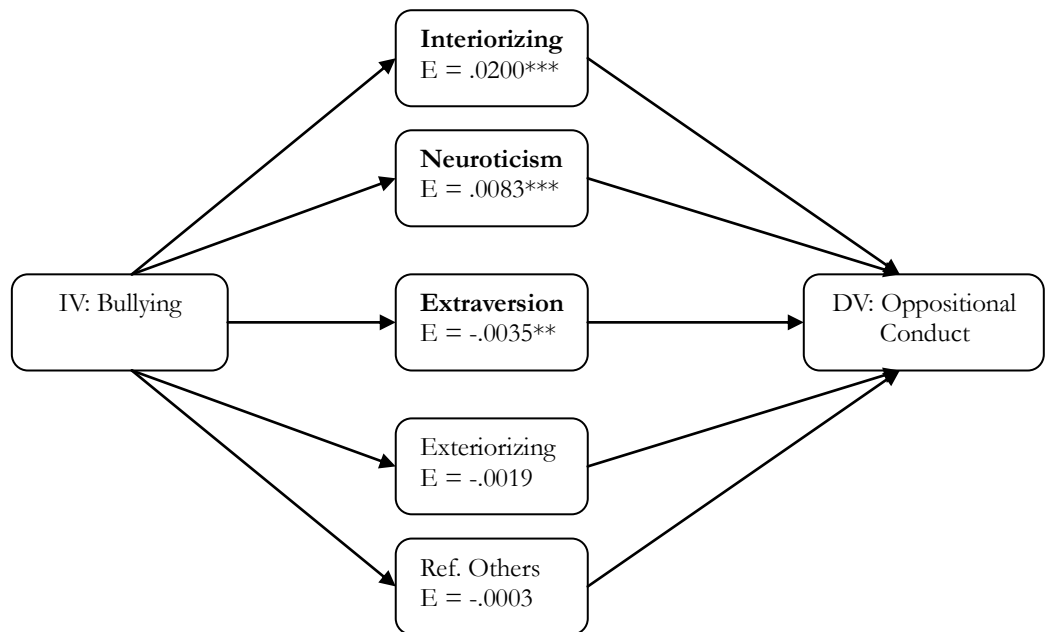


Total Effect Size of IV on DV ( $c$  path) =  $.0647^{***}$

Direct effect of IV on DV ( $c'$  path) =  $.0324^{***}$

One of the greatest effect sizes of interiorizing is found to exist in the relationship between bullying and depression, meaning that those victims that use interiorizing are much more likely to develop depression than their peers. This is also true, but to a lesser extent for neurotic subjects. Exteriorizing coping offers a more favorable psychological outcome, but this is not significant. Reference to others coping and extraversion do not have a significant effect either.

Figure 10. Effect of mediators on the relationship Bullying – Oppositional Conduct.

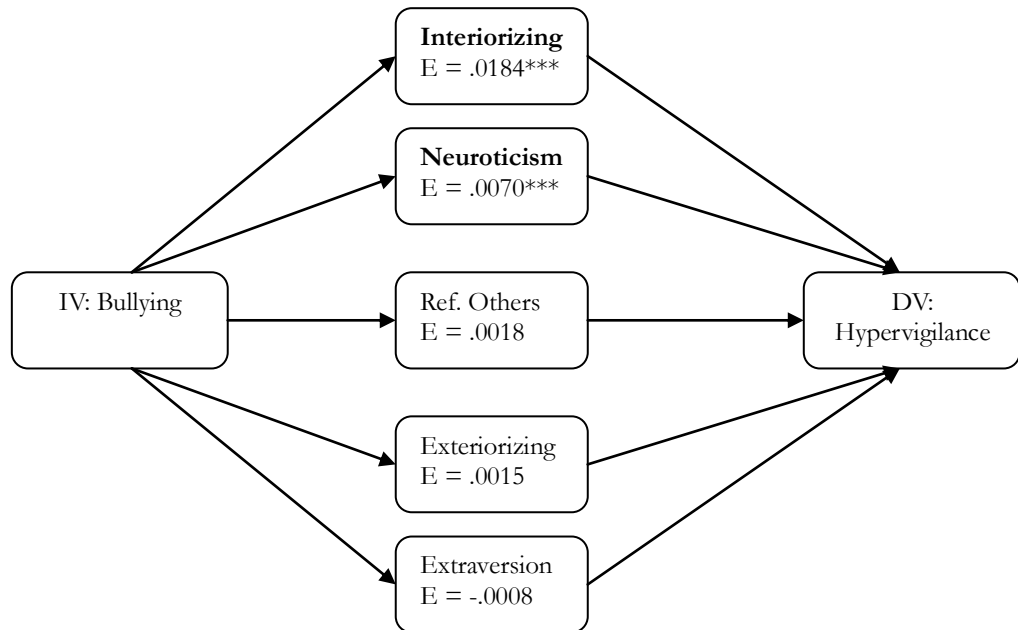


Total Effect Size of IV on DV ( $c$  path) =  $.0557^{***}$

Direct effect of IV on DV ( $c'$  path) =  $.0331^{***}$

The results for the oppositional conduct analyses vary in that here extraversion also has a significant effect size. The two most relevant variables continue to be interiorizing and neuroticism. Additionally, those bullied students who were more extraverted showed fewer problems with oppositional conduct. The same is true for those who use exteriorizing coping, although not to a significant degree. It is possible that these extraverted students found a more constructive outlet in order to externalize their problems.

Figure 11. Effect of mediators on the relationship Bullying - Hypervigilance.



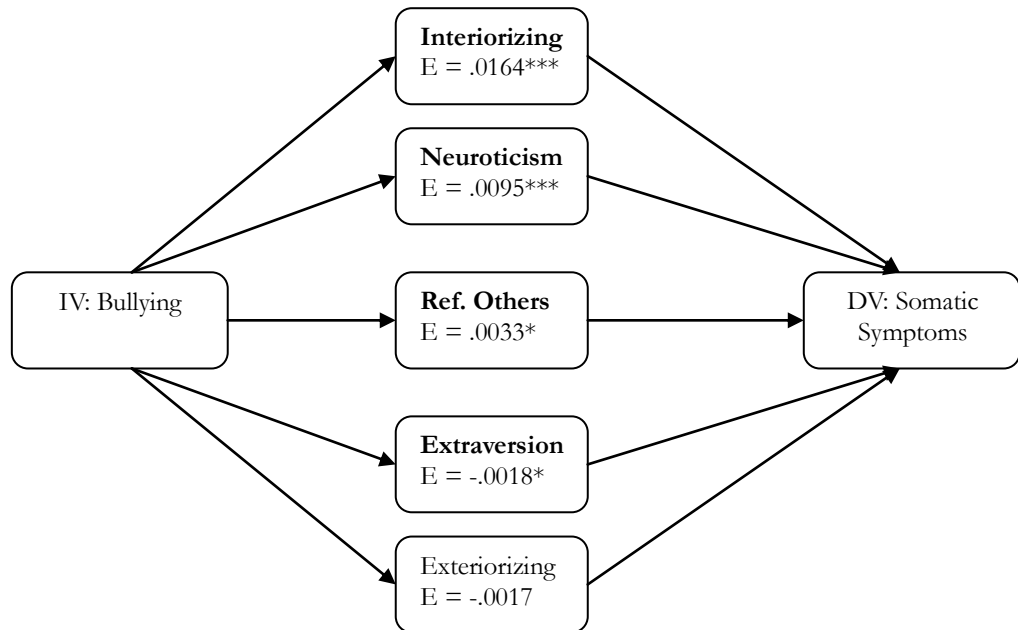
Total Effect Size of IV on DV ( $c$  path) = .0639\*\*\*

Direct effect of IV on DV ( $c'$  path) = .0534\*\*\*

The above figure shows that the relationship between bullying and hypervigilance is significantly mediated by the same variables as most other symptoms, interiorizing coping and neuroticism, although these effect sizes are slightly lower. This difference can also be appreciated by the relatively high direct effect of the independent upon the dependent variable. Reference to others coping is almost significant, while exteriorizing and extraversion have no significant impact.



Figure 12. Effect of mediators on the relationship Bullying - Somatic Symptoms.

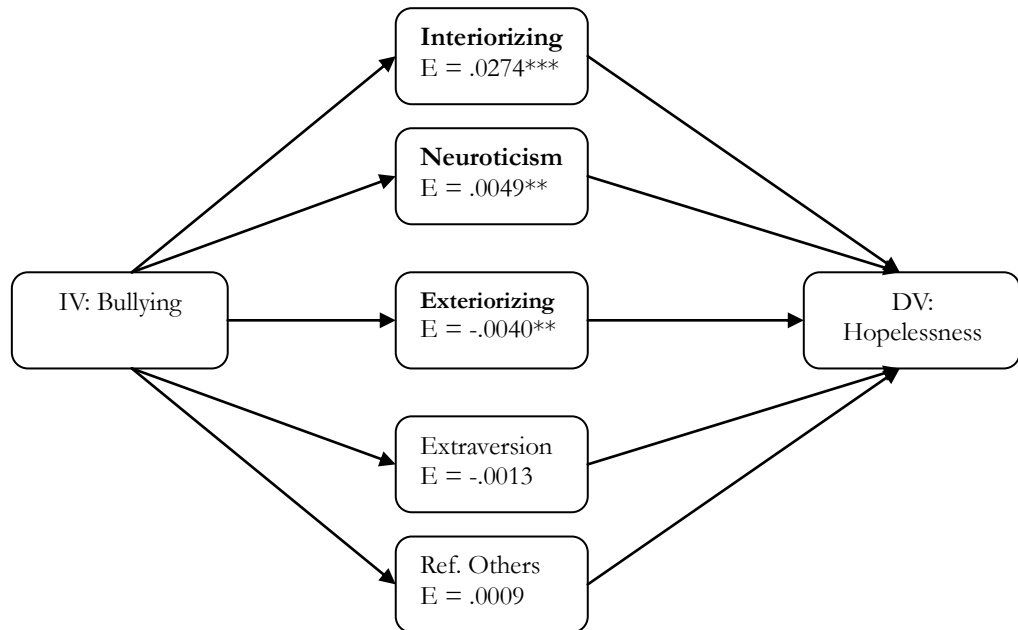


Total Effect Size of IV on DV ( $c$  path) = .0534\*\*\*

Direct effect of IV on DV ( $c'$  path) = .0279\*\*\*

There are four personality variables that significantly mediate the relationship between bullying and somatic symptoms. Interiorizing coping, neuroticism, and reference to others coping are demonstrated to have an important negative influence on the appearance of somatic symptoms. That is, those bullied subjects that are neurotic or employ these coping styles are more likely to have somatic symptoms than their peers. Extraverted students also show significantly fewer symptoms of this type. Exteriorizing coping has the inverse effect, those bullied that use this coping style generally reporting fewer problems, but this effect is not significant. There is a well documented relationship between interiorizing problems and the manifestation of somatic complaints, for example headaches and abdominal pain. These results reinforce this idea, highlighting the benefits that an adequate coping style offers in combating certain types of psychological as well as physical problems.

Figure 13. Effect of mediators on the relationship Bullying - Hopelessness.

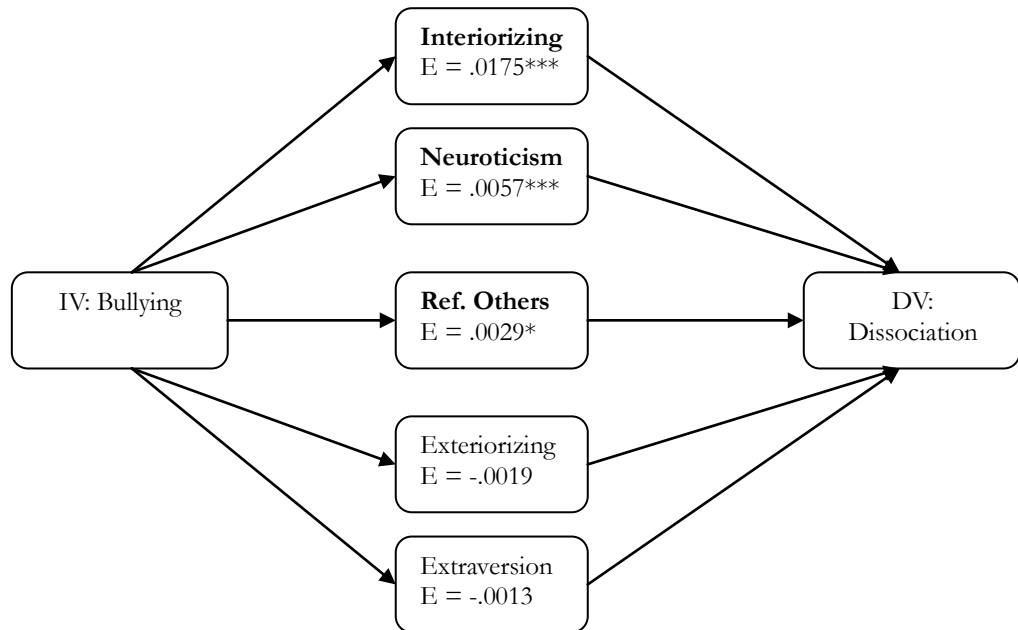


Total effect size of IV on DV ( $c$  path) =  $.0499^{***}$

Direct effect of IV on DV ( $c'$  path) =  $.0220^{***}$

Here, we see that the role that interiorizing plays in the appearance of hopelessness in victims of bullying is very relevant, the highest effect size of all of the psychological symptoms. This is followed, at a great distance, by neuroticism. Also significant, but with a negative effect, is exteriorizing. Extraversion and reference to others show effect sizes that are not significant. It is quite clear that the use of interiorizing coping is detrimental for bullied students, as it leads to greater levels of hopelessness, among other psychological symptoms. Meanwhile, some psychological symptoms can be avoided or mitigated by using exteriorizing coping. Later on in this section we will study the specific mechanisms of each of these coping styles in order to determine which are the most conducive to a positive psychological outcome.

Figure 14. Effect of mediators on the relationship Bullying - Dissociation.

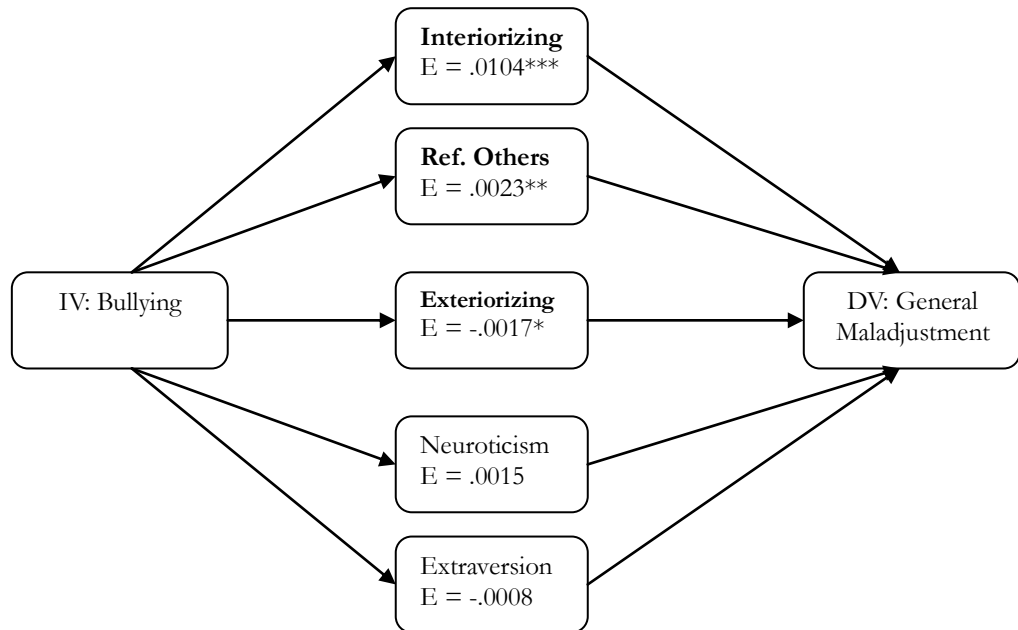


Total effect size of IV on DV ( $c$  path) = .0545\*\*\*

Direct effect of IV on DV ( $c'$  path) = .0317\*\*\*

The results for dissociation are very similar to those of somatic symptoms, although here there are three significant mediating variables. The two most significant are interiorizing coping and neuroticism. The effect size of reference to others coping is relatively large when compared to others, and its use leads to a greater manifestation of dissociation or nightmares. Exteriorizing coping and extraversion also yield close to significant results.

Figure 15. Effect of mediators on the relationship Bullying – General Maladjustment.



Total Effect Size of IV on DV ( $c$  path) = .0288\*\*\*

Direct effect of IV on DV ( $c'$  path) = .0171\*\*\*

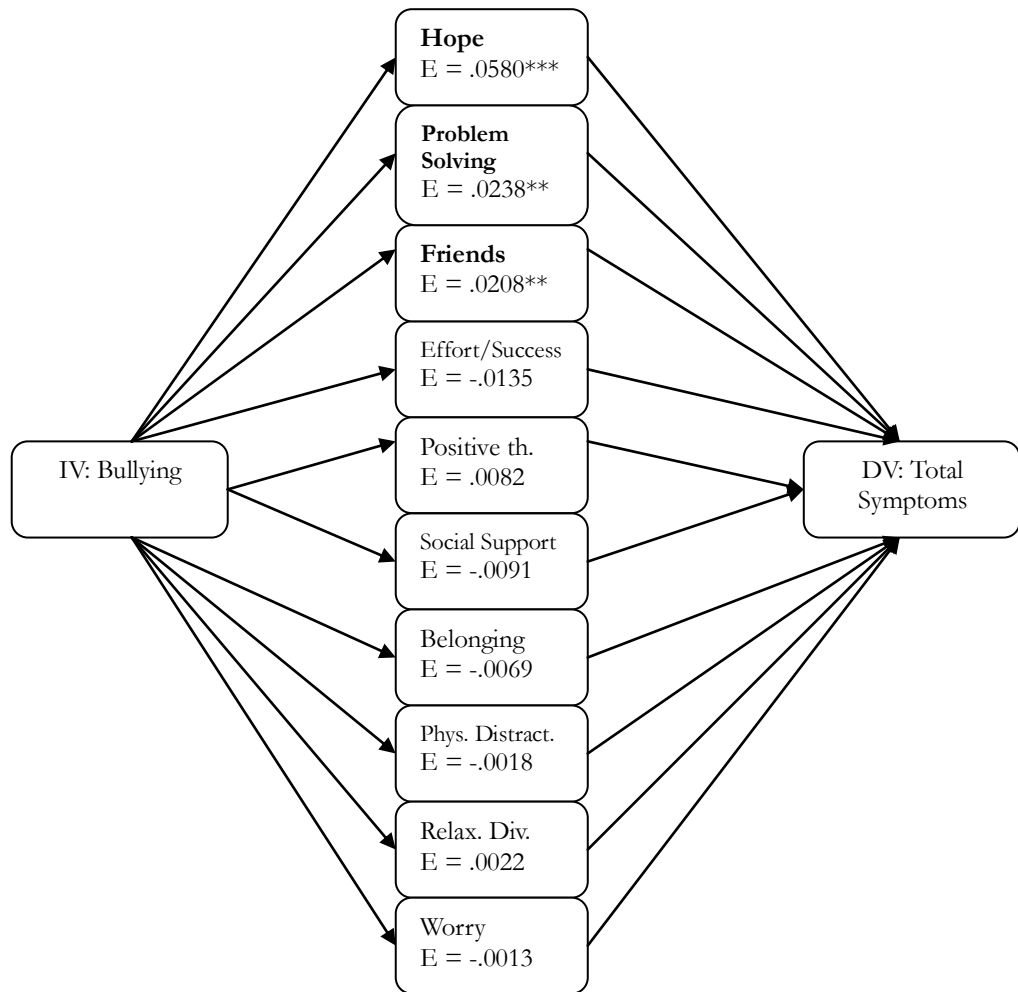
The last symptom variable studied was general maladjustment. There were three mediating variables that significantly influenced the relationship between bullying and this grouping of psychological alterations. There are several important differences to be noticed here. The total and direct effect sizes are much lower here than for the other psychological variables, revealing that the relationship between bullying and general maladjustment, although still significant, is weaker than that manifested by the other psychological symptoms. Therefore, the effects of the mediating variables are also considerably lower. The most relevant variable is still interiorizing coping, however, neuroticism is not significant at all. Reference to others coping is the second most significant variable, followed by exteriorizing coping, which has a negative effect. These differences with respect to the other psychological variables could be explained by the nature of this scale. As explained in chapter 2, general maladjustment is a grouping of emotions and behaviors that do not fit into the other symptom scales, have little cohesion as a unit and, in some cases, are rare and extreme items such as pulling one's hair out. This scale is a clear manifestation of psychological problems but they are unclassifiable and the

affirmative response to one item generally is relatively independent from the responses to other items. The subscale does have several items related to regression and generalized fears, and these are the most common themes found here, although these items do not exclusively represent this problem. This can be seen in the significant, but substantially lower, reliability scores given at the beginning of this chapter.

### 3.8.2.2. The mediating role of coping mechanisms

In the previous section we have studied the influence that the three coping styles have on the established relationship between bullying and symptomatology. Here, we will be studying the mediating role that each of the individual coping mechanisms has on this relationship, in order to determine the most and least adaptive emotions and behaviors. These results are presented within each coping style.

Figure 16. Mediating role of exteriorizing coping mechanisms.



Mediating variables: Positive th. = positive thinking; Phys. Distract. = physical distraction; Relax. Div. = relaxing diversions.

Total Effect Size of IV on DV ( $c$  path) = .5515\*\*\*

Direct effect of IV on DV ( $c'$  path) = .4711\*\*\*

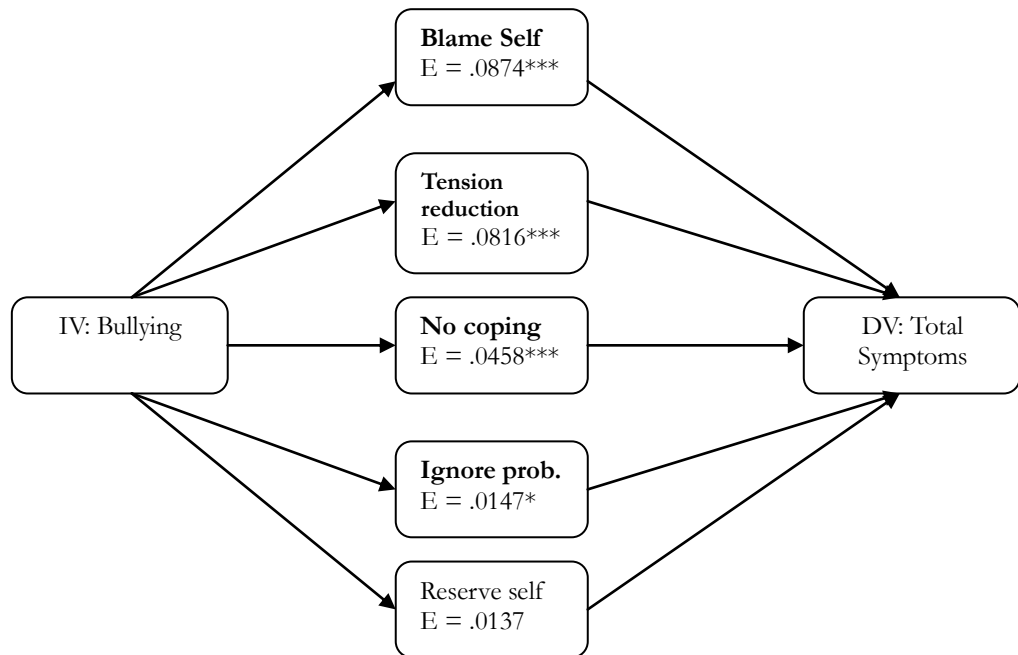
Of the ten coping mechanisms classified as exteriorizing coping, only three were found to be significant mediators of the relationship between bullying and total symptoms, and these three variables all have positive effect sizes, meaning they lead to increased psychological symptoms. These are: having hope, investing in close friends and, surprisingly, problem solving. The first two are more comprehensible. Simply hoping that a situation will go away can make the person feel better temporarily but is not a feasible long-term solution to resolving problematic situations and can eventually

lead to further worry and disappointment while preventing the person from doing something more constructive. Investing in close friends has the same effect, while working as a distraction and making the person feel better and more supported, in the longer term may do little to better the situation.

The significant effect of problem solving, a direct, active form of stopping the bullying situation and bettering the psychological outcome, is a result that warrants further research. While logically it is viewed as a very effective method of coping, here it is shown to lead to more negative psychological outcomes. When considering all of the statistical output, we find a very large difference between the *a* path (the relationship between victimization and problem solving) and the *b* path (the relationship between problem solving and psychological symptoms). For this case, problem solving has a very strong relationship with bullying victimization but a non-significant relationship with psychological symptoms. This large disparity, not seen in the other significant effect sizes, could explain, in part, this unexpected result. Another possibility is that thinking about the problem continuously could turn into an obsession, interfering with other aspects of the person's life and occupying much of their time. Additionally, if the person insists in resolving problems that are beyond their capabilities they could become frustrated and feel even more helpless, compounding their psychopathology.

The trend found in the previous mediation analyses leads us to believe that for several symptoms, the use of exteriorizing coping is beneficial for the psychological well-being of the students. This can be explained here by considering the non-significant negative effect sizes. There are four variables that are shown to be somewhat more conducive to a better psychological outcome. These are making an effort and being successful, social support, belonging, and physical distraction. These mechanisms counterbalance, to a certain degree, the negative influence of the other variables. It is also important to point out that, as seen in previous sections, those students reporting more bullying also reported using more coping of all types. This trend is seen here, in that practically all of the mechanisms have a significant positive relationship with bullying, while the relationship with psychological symptoms is more varied.

Figure 16. Mediating role of interiorizing coping mechanisms.



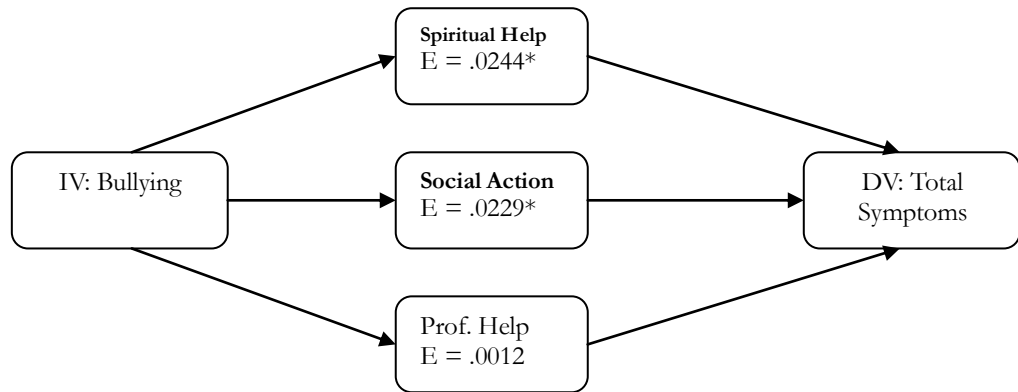
Total Effect Size of IV on DV ( $c$  path) = .5513\*\*\*

Direct effect of IV on DV ( $c'$  path) = .3080\*\*\*

Of the five coping mechanisms studied here, four were found to significantly mediate the relationship between bullying and symptoms. All of these effects were detrimental to the psychological outcome of bullied students. The least effective coping mechanism was found to be blaming oneself, closely followed by tension reduction. A complete lack of coping and ignoring the problem were also significantly detrimental. Reserving the problem for oneself was also found to be counterproductive as well, but not to a significant degree.



Figure 18. Mediating role of reference to others coping mechanisms.



Total effect size of IV on DV ( $c$  path) = .5519\*\*\*

Direct effect of IV on DV ( $c'$  path) = .5034\*\*\*

Of the three coping mechanisms that make up reference to others coping, two were found to have a significant mediating role. Spiritual help was shown to affect this relationship, leading to more psychological symptoms. This could be due to a feeling of hope or personal helplessness that accompanies placing one's problems in the hands of another, through confession, prayer or support seeking. It could temporarily make the person feel better, but if results are not achieved could lead to frustration and a greater sense of helplessness. Social action could have a similar effect of creating expectation that may not be fulfilled. Professional help was the only variable found to be linked to a less negative outcome, although this was not by any means significant. It shows a more active position by the victim. If the professional is a counselor or psychologist, they are well trained to help the person with their psychological problems. If the professional is a school employee, they are in a better position to remedy the problem.

### 3.8.3. General conclusions

In this section we have studied in depth the predictive power and the mediating role that personality characteristics, as well as coping styles and mechanisms, have on the development of psychological symptoms. The variable found to have the most predictive power in general with the symptom scores, according to the regression analyses, was the use of interiorizing coping, found to be quite detrimental for the psychological well-being of students in general, not just those bullied. In fact, it was found to be more predictive of psychological problems than the level of bullying itself. This variable was also found to have the largest effect on the psychological health of bullying victims specifically, for all of the symptom types. There were no dependent variables in which interiorizing was not the most significant mediating variable. This leads us to the conclusion that interiorizing coping is not only ineffective and harmful for dealing with bullying situations but is also directly linked to the appearance of all types of symptoms, especially hopelessness, depression and PTSD symptoms.

Of the five interiorizing coping mechanisms, the most detrimental was found to be blaming oneself. In this case the victim not only does nothing constructive to resolve the situation but adds to the problem even more by feeling guilty and, instead of recognizing the bully as the culpable one, places the blame squarely on themselves, leading to a further sense of helplessness and the idea that they deserve to feel bad for what they perceive they have done. This is closely followed by tension reduction, which includes reducing pressure through crying, screaming or general evasion. Although this may work, very temporarily, to exteriorize rage and frustration, the effect is momentaneous, does nothing in the short or long term, and, if done in public, can worsen the bullying situation. Not coping at all with the situation, and feeling incapable of doing so, also leads to psychological difficulties, as the original problem is confounded by a sense of imposed apathy, helplessness or giving up which could lead to more problems on an unconscious level. Ignoring the problem is similar in this regard to not coping, but the problem is pushed aside on a more conscious level, the person refusing to think about it at all. All of these coping mechanisms lead to a worse psychological outcome of those who are bullied. The only non-significant coping

mechanism of this type was reserving the problem for oneself, in which the person avoids others so that they do not realize what is happening.

Neuroticism also had generally high predictive power. It appeared as predictive for almost all of the dependent variables. It was also found to have the second largest effect on the relationship between bullying and psychological symptoms, after interiorizing, for all symptoms except general maladjustment. This effect is particularly high for post-traumatic stress symptoms and depression. The lowest effect sizes, although still significant, are for hopelessness and dissociation. The only dependent variable unaffected by the mediation of neuroticism is general maladjustment. These results lead us to conclude that most neurotic subjects, regardless of their victimization status, suffer more psychological symptoms. However, the predictive power of this variable is notably less than that of interiorizing and bully victimization. If a person uses interiorizing coping or is bullied, it is more likely that they will have more psychological problems. However, as these characteristics are not mutually exclusive and, in fact, often coexist in a person, it is important to recognize the dynamic that exists between these three factors. When we take into consideration the relationship between bullying and symptomatology, we find that the role of neuroticism is also very relevant. Generally speaking, those students who are bullied at school and show neurotic tendencies are much more likely to have psychological problems. This is to be expected, as neuroticism is characterized by a person's tendency to ruminate on their negative experiences and a generalized emotional instability, leading them to overreact both emotionally and behaviorally to their victimization.

Reference to others coping appeared in about half of the psychological symptoms, playing a different predictive role in each. In the general population it is not very predictive of psychological difficulties. It is only a significant predictor of general maladjustment, dissociation and somatic symptoms, reexperiencing and, to a lesser degree, hypervigilance. Those who turn to others for help resolving their problems, regardless of bullying status, have more difficulties dealing with their problems on a more physical level, including having difficulty sleeping, different types of physical discomfort, as well as a certain degree of generalized fear and emotional regression. This situation could be created by a sense of personal helplessness with their situation, relying on others because they are unable to confront their problems alone. These

results are found to be the same from those who are bullied at school, with the exception of hypervigilance, not found to be affected by this coping style. It is very important to look at the individual coping mechanisms here, as there are some that are found to be more detrimental than others. In the mediation analyses, we find that the least effective coping mechanism of this type is spiritual help. As previously noted, this is most likely to complicate the psychological adjustment to an adverse situation, because it is a very passive form of coping, placing your problems in the hand of a higher power and hoping that they will be resolved does little to remedy the situation, and while it may be comforting in the short term, may eventually lead to disappointment and frustration, worsening the symptoms.

Another significantly prejudicial coping mechanism is social action. The first point that must be addressed is that it is by far the coping mechanism (of all 18) that is the least used. In Spain, the formation of support groups and petitions, particularly in school-aged children and adolescents, is not common. Very recently, there have been more manifestations of public support, demonstrations, and media coverage of this problem, but they are cases that are isolated and generally quite severe. This could lead us to believe that the few people who do use this mechanism have more severe bullying problems and find fewer peers to join them in their actions.

The only mechanism of this type that had a negative effect on the relationship between bullying and symptoms, but by no means significant, was seeking professional help. Relying on others to help a person with their problems when the person can actually do something concrete to help, is shown to be somewhat effective. A school employee could help mitigate the bullying problem and a psychology professional could help with symptoms as well as discovering the most effective way to deal with the situation. It is likely that the victim feels like they are a more active participant and have done what they can to better the situation. However, there could be frustration if their problems aren't resolved in a timely fashion.

Extraversion was found to have predictive power in only some of the scales. In the regression analyses, extraverted subjects in general were predicted to have significantly more problems with oppositional conduct, increased arousal, total symptoms, total post-traumatic symptoms, somatic symptoms, hopelessness and dissociation. This trend is

reversed when considering bullied subjects and their psychological symptoms. Introverted victims of bullying were found, as a result of these negative experiences, to manifest, in this order, significantly more oppositional conduct, avoidance, total symptoms and arousal. These students avoid people and things that remind them of their problems, are more alert to potential danger and tend to act out more. This difference between the general population and bullied students will be explained further in Chapter 4.

Exteriorizing coping was shown to be predictive in some cases, and with a negative value, implying that this coping style in general is effective in avoiding the development of some types of psychological symptoms. This is the case for general maladjustment, hopelessness, avoidance, dissociation and total symptoms. Those students that use this coping style generally do not avoid situations, feel as if their situation is impossible to improve and do not have difficulties with regression. For victims of bullying, the impact of this coping style is very similar. Those bullied students who use exteriorizing coping suffer less hopelessness, general maladjustment and avoidance, but also fewer psychological symptoms in general. Globally, this coping style is found to be more adaptive to bullying situations and more likely to mitigate the adverse psychological consequences that bullying can have on the victim. However, when considering the mechanisms that compose this coping style, we find that the results vary greatly. Some are found to be detrimental, while others are more helpful. For the only three mechanisms found to have a significant impact on the relationship between bullying and symptoms, this impact was shown to be harmful. Having hope, characterized by the expectation that things will improve on their own, was the most ineffective. A positive attitude is maintained, at first, but there is nothing actively done and when this expectation remains unfulfilled it can create more psychological difficulties. Investing in friends, that is, committing oneself to a close relationship or making an effort to make new friends, can serve as a welcome distraction and a source of social support for the general population, but in this case, for victims of bullying, with their generally reduced social circles and difficulty making friends, this can be a difficult mechanism to use and even a source of further frustration. Problem solving was, surprisingly, the other significantly detrimental coping mechanism. Defined in chapter 2 as a way to “systematically confront the problem, thinking about it and keeping in mind different points of view and solution options”, this would, on the surface, appear to be helpful

and adaptive for reducing the consequences of bullying. A plausible explanation for this result could be that the victims of bullying studied here confront the problem, but in a way that does not diffuse or even worsens the bullying situation. This could mean fighting back or protesting in a way that reinforces the bully, instead of pretending that it doesn't bother them, or some more thought out response. Additionally, the victim of bullying could think about the problem, but to an extreme degree, becoming an obsession. This coping mechanism deserves greater study in order to determine exactly how the specific problem of bullying could be solved. Of the more productive mechanisms we find, although not to a significant level, making an effort and being successful, which is characterized by laboriousness and striving to be successful in general. This describes the general tendency of a person to overcome difficulties and a desire for personal growth. This characteristic will help the person to not only make a greater effort to resolve their problems and improve their well-being, but also indicates a tendency to plan for the future and control their actions. The other mechanism with a positive influence on psychological outcome is social support. Sharing problems with others not only alleviates pressure on oneself and allows the person to feel more loved and protected but also allows for these friends to help the person with their bullying situation. These friends can also offer advice and help the person to feel better emotionally. A student seeking support from their peers is generally an effective way to feel better, although in many cases the victim of bullying has a reduced social circle, and sometimes their friends could also be suffering victimization, making this mechanism difficult to carry out to its full potential.

To conclude, from the results put forth in this section, we can address several important questions regarding why some victims of bullying suffer more psychological consequences than others, focusing primarily on the individual personality characteristics and coping styles used by students. We find that the most determining aspect of a worse psychological outcome is the use of interiorizing coping, particularly tension reduction and self blame. This coping style increases the probability of suffering all of the psychological symptoms studied here, and may even exacerbate the tendency of the individual to be bullied. Neurotic subjects were also found to suffer more psychological difficulties of all types, although this impact may be influenced in part by the tendency of these students to ruminate, possibly reporting more symptoms than they actually experience. Reference to others coping, particularly seeking spiritual

help, is found to be counterproductive, which may be due to a sense of dependence or frustration, along with a lack of action. Extraversion has some effect on the psychological outcome of bullying victimization, introverted subjects acting out more, being more susceptible to increased physical and psychological arousal, and avoiding things that remind them of their victimization. Exteriorizing coping, made up of ten different mechanisms, is found to be helpful in general, but certain mechanisms are found to be detrimental to the psychological well-being of the students. All of these results and the questions they pose will be contemplated more thoroughly in the final section of this thesis, Conclusions.

## CHAPTER FOUR: CONCLUSIONS

The purpose of this thesis was to explore the incidence, nature and consequences of school bullying among middle and high school students in Valencia, Spain, and how these are affected by personality. We began by reviewing literature that has studied the phenomenon of school aggression on an international level, defining types of bullying, typical bully and victim profiles as well as the school environment as a whole. Analyses using the present sample were carried out in order to determine individual differences among victims. The impact of certain sociodemographic variables, namely sex, immigration status and age was researched and examined to determine if these factors affected the prevalence of bullying, its nature and consequences. After these elements were studied we moved on to more complex individualities of the subjects, their personality characteristics as well as the coping styles and mechanisms that they employ to deal with their problems. In this chapter we present the conclusions reached regarding the objectives and hypotheses proposed in Chapter One.

### 4.1. Aggression and bullying in schools

The first section of results pertains to objective 1: the exploration of the prevalence of verbal, physical and indirect aggression as well as punishment and the differences between groups based on demographic variables. First of all, it is important to note here that there is no set way in the literature to define and determine incidence rates of bullying in general, as well as what the decisive point between suffering aggression and bullying is. In order to compare it to previous studies we have decided not to calculate these overall rates, to avoid being arbitrary in this way. Instead, all of the levels of bullying and severe bullying are relative to the other groups established specifically for



the purposes of this paper, not to be compared to groups obtained in a different manner in other studies.

That said, the first question to be addressed was what, if any, differences exist between boys and girls. Much of the literature published leads us to believe that, generally speaking, boys report more physical aggression, girls report more indirect aggression and both manifest similar levels of verbal aggression (Borg, 1999; Craig, 1998; Rivers and Smith, 1994; Ortega, 2000; Crick and Grotpeter, 1995; Björkqvist et al., 1992; Owens, Shute and Slee, 2000). Seals and Young (2003) however, found that levels of physical aggression were similar between the two sexes, and that these aggression patterns change differently as they age. Most of the studies centered on the type of aggression used by the bully and not that experienced by the victim, however, the literature also emphasizes that boys usually bully boys and girls usually bully girls (Ortega and Mora-Merchán, 2000; Seals and Young, 2003). Boys are found to have more problems overall with teachers, including punishment (Borg, 1999).

Taking into consideration this literature, we expected (hypothesis 1.1) to find important differences between boys and girls, specifically, that boys were more frequently victims of physical aggression and punishment, girls were more frequently exposed to indirect aggression, and both were verbally abused to a similar extent. Our results fully support this hypothesis in terms of the types of aggression suffered. Levels of verbal aggression were virtually identical while boys were more frequently punished and physically attacked. Girls reported significantly more indirect aggression. However, when taking into account the levels of these types of bullying, that is reiterated aggression, these results were not as significant, in large part due to the much higher standard deviations, indicating much variation among individuals. These results followed the same trend but the differences for physical and indirect bullying are no longer significant. Repetitive punishment was also found significantly more among boys, though. We can conclude from these results that boys are more frequently pushed, hit, threatened and punished than girls, for example, while girls are more often lied or maliciously gossiped about. Things such as name calling and mean teasing are common among all students. Of the students that are frequently bullied in these ways, we find that these trends are maintained, but since there is a large degree of variability among subjects and frequency of events, these differences are less pronounced.

The second hypothesis of this objective (1.2) involves the possible differences between immigrants and Spanish nationals. The literature on this subject is relatively scarce, and studies ethnicities different to those studied here. That said, the common denominator for these studies is the potential effect of social exclusion and cultural differences, regardless of nationality. This does not necessarily apply to this study, or at least not to the same degree. Most of the immigrants in the schools studied here, although not all, are from Central and South America, where Spanish is the primary language. As a result, there is no language barrier, lessening the impact of social exclusion and making it easier for these students to integrate with their peers. This could be beneficial to these students, facilitating social relationships with all other students. However, it could also be detrimental, as some studies suggest that immigrants, particularly those with language differences, are buffered from attacks by their peers that form part of the majority (Strohmeier and Spiel, 2009). Generally speaking, the available literature on this subject offers contradictory results, two Austrian studies (Strohmeier, Spiel and Gradinger, 2008; Strohmeier and Spiel, 2009) finding that Austrians were victimized more than their peers from Turkey or the former Yugoslavia, while in Italy (Vieno, Santinello, Lenzi, Baldassari and Mirandola, 2009), immigrants suffered more victimization. This difference could be due, in part, to the different percentages of immigrants in each of the regions. In Austria, approximately half of the subjects were immigrants, while in Italy this percentage was just over 7%. In Italy these immigrants, clearly in the minority, may be picked on more, while in Austria, they have more support and don't stand out so much as being different. In our study, 20.9% of the sample were immigrants, 12% being from South and Central America, 5.2% were European and the rest were from Asia and Africa.

Given the very different characteristics of the samples presented here and in the literature it is difficult to make quantitative comparisons. We hypothesized that, given the characteristics of our sample, that there would be few differences in the incidence and type of aggression experienced by immigrants and Spanish nationals, except for certain types of verbal aggression (such as name calling) that we expected to find more among immigrants. We were somewhat surprised to find that Spaniards were found to experience significantly more physical aggression and slightly more physical bullying, although threats of physical violence were found to occur more in immigrants.

Particularly, there were more fights involving Spaniards. They also reported much more punishment and this was more reiterated. Spaniards also showed slightly higher levels of indirect bullying, while immigrants showed slightly higher levels of verbal aggression, particularly being teased because of their race. In general, Spaniards reported more aggressive events than immigrants, but this difference was not shown to be significant ( $t = 1.57$ ). From these results we can conclude that generally immigrants, except for very specific types of insults, report similar or slightly lower levels of aggression than Spaniards. The large difference in punishment could be due to a widely extended opinion among educators in Spain that Spanish adolescents show an increasing lack of respect for authority figures, requiring more punishment to correct this behavior. Additionally, Spaniards may feel a greater sense of entitlement than immigrants, sparking more complaints of unfair treatment.

The last hypothesis (1.3) addresses the differences that may exist between younger and older children. The evolving maturity and social skills of children over time makes it quite clear that their behavior as well as their interactions with their peers will also experience a gradual change. This leads us to believe that the types of aggression that they use will become less reflexive and more contemplated, directed more at specific people and intended to do harm. Generally speaking, previous literature has noted a marked decrease of victimization as a whole with age. This could be due to several factors. The first is that younger children are less conscious of the harm they inflict on others, lack social skills to deal with certain situations, and copy what they see (Smith and Levan, 1995; Ortega, 2000) leading to more frequent, but less harmful, aggression. However there are several studies that contend that the incidence of bullying does not decrease, but is directed at fewer and more specifically targeted victims (Perry, Kusel and Perry, 1988; Kaltiala-Heino, Rimpelä, Rantanen, and Rimpelä, 2000). We expect to find that the differences between age groups to be more of a qualitative than quantitative nature, meaning that the type, rather than the incidence of bullying, will vary. Specifically, we expected to find that physical and verbal aggression will show a tendency to decrease, but indirect aggression, with the relative complexity that it requires, will increase with age. For the most part, the results obtained here show that these trends exist, but not to a significant degree. Younger students show moderately higher levels of verbal and physical aggression and bullying, while older children reported slightly more indirect aggression. Levels for punishment were very much the same. When looking at

the individual acts, however, interesting differences can be appreciated. For verbal and physical aggression, more simple forms, such as teasing, tripping and throwing things were more common, while more severe types of physical altercations were much more common among older students. Another factor that could explain the lack of significant differences between the age groups is that there is relatively little difference in age among the students and there are no very young students. The two groups are made up of 11 to 14 year-olds and 15 to 19 year-olds. The differences between eleven and nineteen year-olds may be evident, however the differences between fourteen and fifteen year-olds are probably non-existent.

## 4.2. Psychological consequences of peer aggression

Once we studied the incidence of aggression and bullying, its forms and the differences in experiences between demographic groups, the next objective of this paper was to investigate the effects of aggression on psychological well-being. For this purpose, we considered the sample as a whole and, additionally, considered differences that may exist between groups. These groups were formed based on demographic variables as well as the level of bullying experienced. Additionally, we looked at possible relationships between the specific types of aggression and psychological symptoms. In the questionnaire we used scales to represent eleven different psychological symptoms. The clinical levels of disorders were not considered here, and as such no diagnoses were made, instead, levels of symptomatology were determined.

The first hypothesis (2.1) concerns the general population represented by all of the subjects included in the study. We expected that students who were bullied suffer more symptomatology in general. The two most studied psychological symptoms, found to have a strong relationship with aggression, were depression (Hawker and Boulton, 2000; Kaltiala-Heino et. al., 2000; Grennan and Woodhams, 2007; Ranf, Báguena, Toldos and Beleña, 2006; Seals and Young 2003; Craig, 1998; Kaltiala-Heino, Rimpelä, Marttunen, Rimpelä and Rantanen, 1999; Slee, 1995) and anxiety (Ortega and Mora-Merchán, 2000; Craig, 1998; Kaltiala, et.al., 2000; Kumpulainen, et.al., 2001; Hawker and Boulton, 2000; Grennan and Woodhams, 2007; Graham and Juvonen, 1998; Hugh-Jones and Smith, 1999). In this study we do not study anxiety as a whole but instead consider related

symptoms of post-traumatic stress and hypervigilance. Somatic symptoms (Katiala Heino et.al., 2000) were also found to be linked to victimization as well as post-traumatic stress (Ateah, C., Báguena, M.J., Beleña, A., et al., 2004, Gruber and Fineran, 2007; Ranf, Báguena, Toldos and Beleña, 2006)

Taking into account this previous research we hypothesized that most all types of psychological symptoms studied here would be found to a greater degree in victimized students, and this would be particularly true for depression, post-traumatic stress, hypervigilance and oppositional conduct.

Before considering the effect of reiterated bullying we first studied the correlations between psychological symptoms and different types of aggression. All of these correlations were significant, however, some important differences can be appreciated. The greatest correlations were found with verbal aggression followed closely by indirect aggression. Both were found to have the strongest relationship with depression, PTS (post-traumatic stress) and hypervigilance. The correlations with physical aggression were slightly lower overall, and the symptoms most commonly manifested by those reporting more of this type of aggression were slightly different, the most significant being with dissociation, general maladjustment, depression, and PTS. For punishment, the correlations were weaker overall. There was, however, a notably high correlation between punishment and oppositional conduct, much higher than the other correlations. We can conclude that levels of all symptoms are affected by all types of aggression but the most common symptoms overall are depression, post-traumatic stress and hypervigilance, while those suffering physical aggression manifest more problems with nightmares, distraction and regression and those punished often act out more frequently.

In order to have a base for comparison we looked at the symptoms reported by the subjects as a whole as a result of their adverse school experiences, regardless of victimization and found that the most frequent were oppositional conduct, increased arousal, somatic symptoms, depression and hypervigilance. Regression and hopelessness are much less common. These adolescents generally act out more, are attent to their surroundings, have physical complaints, such as headaches, and report some depressive feelings. From here, we compared those students reporting high levels of bullying to

those that reported no or very few bullying problems. The differences in symptom severity of all types between these two groups were very significant, especially for depression, hypervigilance, hopelessness and the symptoms of PTSD. This coincides with hypothesis 2.1, with a slightly smaller difference, although still very significant, in oppositional conduct than anticipated. This could be explained by the characteristics of the victim (for example if they are more withdrawn), their immediate reactions to bullying, and their coping style.

Hypothesis 2.2 led us to study the differences between boys and girls, in the general population, for symptomatology. We anticipated, based on the literature consulted, that girls would report more symptoms in general (Kaltiala-Heino et. al., 2000; Kumpulainen, et.al., 2001; Graham and Juvonen, 1998; Murberg and Bru, 2004). We expected these differences to be more marked for depression and somatic complaints, and the possibility that boys show more oppositional conduct. What remains unclear is if there is a greater propensity by girls to actually develop these symptoms or if they are just more likely to report them, possibly seen as a sign of weakness by boys and the tendency of girls to ruminate more on their problems. In any event, girls reported significantly higher levels of most symptoms, particularly somatic symptoms, reexperiencing, depression, and hypervigilance. The levels of general maladjustment (related to regression, generalized fear and self-inflicted injury) and oppositional conduct, contrary to our prediction, were virtually identical. When considering boys and girls that were bullied often, the same trend is maintained, with girls reporting more psychological symptoms overall. However, here only four of these differences (avoidance, depression, hopelessness, and somatic symptoms) are significant.

We can conclude that indeed girls, regardless of their victimization status, manifest more overall symptomatology, however, when the subjects are bullied, these differences are limited to avoiding things that remind them of the situation, feeling depressed in the present and about their future, and physical manifestations of their pain. Unfortunately, the nature of this difference, if it is as a result of a higher incidence of symptoms or simply its reporting, is still unclear.

The second demographic variable studied here was the immigration status of the student (hypothesis 2.3). We did not anticipate to find important differences in

symptoms between the two groups. Indeed, almost all of the symptom scales reveal very little difference between Spanish nationals and immigrants, in accordance with the hypothesis. The only significant difference between the two was found in the impact of the event which affected Spaniards more. There were two other scales that showed some difference, oppositional conduct and increased arousal were found to be higher in Spaniards as well. The rest of the scales were very similar, most of them demonstrating slightly higher levels in Spaniards. For victims of bullying, we see the same trend as demonstrated in the general population, Spaniards manifesting slightly higher levels of almost all symptoms. We can conclude that Spaniards generally show more symptomatology and they report being somewhat more affected by their negative experiences than their immigrant peers, act out more and are more physiologically aroused, but these differences are small.

We didn't expect to find these same differences between younger and older students (hypothesis 2.3) on psychological symptoms, particularly for shorter term effects (those that are more specifically addressed here). Previous literature has placed more emphasis on longer term effects, self esteem, social skills and relationships, things not contemplated by the present study. The results obtained in chapter three show very little difference between these two groups in the general population. In general, younger students showed slightly higher levels of most types of symptoms, particularly hopelessness and avoidance, with the exception of somatic symptoms and general maladjustment. The only significant difference was that younger students reported more hypervigilance. For bullied children, the same tendencies are seen as with the general population, suggesting that younger children, regardless of victimization status, suffer slightly more psychological problems than their older peers, particularly being more alert to their surroundings and possible threats.

To conclude, the most important factors in the appearance of psychological symptoms as a result of their adverse school experiences is the frequency and severity of bullying victimization and to a lesser degree the type of victimization. Different types of aggression are more strongly linked to different psychological symptoms, making it important to study which types of aggression are the most detrimental to the psychological outcome of the victim. Here we have found that the most damaging, and with very similar psychological consequences, are verbal and indirect aggression,

followed by physical aggression, which tends to lead to slightly different psychological problems. Another important characteristic of the person in determining their psychological distress as a result of negative school experiences is their gender, with girls having, or at least reporting, more problems in general, particularly internalizing difficulties. This could be due to many different factors, two of which have been studied here, personality characteristics and coping styles, which, in the following pages, will be discussed.

### 4.3. The role of personality and coping

The final and culminating objective of this study delves into the characteristics of individuals that are more conducive to psychological problems as a result of aggression and bullying. We examined the role of neuroticism and extraversion as well as the manner in which students cope with their problems, in order to establish what characteristics of the person make them more likely to suffer symptoms, as well as which are the best ways to confront their problems in order to limit the adverse situations and their consequences. We studied this from several different angles and established the relationships in a series of steps that allows not only for the linking of variables, but additionally, permitted us to explore and quantify the role that these personality characteristics and coping styles have in the development of symptoms as a result of bullying. With these results, we are able to establish, to a certain extent, a personality profile of students that are more likely to have problems and identify the specific coping mechanisms that can help them to minimize their difficulties.

We started by studying the differences between girls and boys on personality characteristics. This was followed by an exploration of the relationships that exist among these personality variables and coping styles. Then we began to address personality characteristics by considering the differences in victimization, symptomatology and coping mechanisms used between groups of students with low and high levels of neuroticism and extraversion. Additionally, using regression and mediation analyses, we explored if the emotional aspects of personality (extraversion and neuroticism) mediate the relationship between the level of aggression and the



consequences for the psychological well-being of the children and to what degree. The next step was to examine if the cognitive aspects of personality (coping mechanisms) mediate this same relationship. We studied the use of three different coping styles (internalizing, externalizing and reference to others) and how the use of these styles affects their victimization status or psychological symptoms. Additionally, we examined which are the specific mechanisms used by people who suffer more or less aggression and bullying and which are associated with a better or worse psychological prognosis.

The first hypothesis (3.1) put forward in this section, is related to the personality differences between demographic groups. Previous literature suggests that we would find higher levels of neuroticism in girls (Ranf, 2005). We expected to find little difference between the sexes for extraversion. In terms of coping, previous studies suggest that girls generally show more internalizing forms of coping and support seeking than boys, while boys showed a more pro-active, problem focused approach (Olafsen and Viemerö, 2000). We anticipated finding some difference between the sexes, but for coping mechanisms rather than overall coping styles. In accordance with these hypotheses, girls showed significantly higher levels of neuroticism than boys while extraversion was a trait that was virtually identical in boys and girls. As for coping, levels of coping styles showed large differences between boys and girls. Girls reported using exteriorizing, reference to others and interiorizing coping with much more frequency. The differences shown here were very significant. Girls reported universally more coping of all types, more with exteriorizing and interiorizing than with reference to others. This may be explained by a tendency of girls to report more coping actions and being more reflexive in their responses. They may ruminate more on their problems and as a result, and pay more attention to what they do to resolve them. The tendency of boys to act more directly to the situation in the moment it occurs may lead to a decrease in the use of longer term strategies, or more difficulty in recognizing them as such. Given these results on overall coping styles the results for individual mechanisms are not surprising. All but one of the coping mechanisms were reported to be used more by girls than boys. This is especially true for the following mechanisms: Tension reduction, social support, belonging, worrying and hope. This is in accordance with previous studies, girls relying more on close friends and social circles, while thinking about their problems frequently. The only mechanism that was reported slightly more by boys was physical distraction, which includes items involving sports and exercise.

Analyses about Spaniards and immigrants were not expected to yield important differences between the two groups. This is what we found, specifically that while immigrants reported slightly higher levels of neuroticism, this was not significant and the levels of extraversion were virtually identical. As for coping, Spaniards and immigrants reported using exteriorizing and interiorizing coping to the same degree, while immigrants reported slightly more reference to others coping. There were only two significant differences between the two groups, both of which pertain to reference to others coping. Spaniards used social action, that is, forming groups and acting in an organized fashion to resolve the problem while immigrants reported seeking spiritual help much more often, which includes praying and consulting figures within the church.

We also expected to find few differences between older and younger students on these variables. The groups manifest almost identical levels of neuroticism and very similar levels of extraversion, the only palpable difference was found with coping, older students reporting higher levels of all types of coping styles, particularly exteriorizing, followed by reference to others and interiorizing. All coping mechanisms were reported more by older students, but to varying degrees. Particularly relevant are those related to exteriorizing coping as well as reference to others coping. Older students are most likely more reflective in their reactions and are more likely to give more thought to a long term strategy, as they generally have more problems with prolonged bullying. Younger children may lack the cognitive capacity to form a coherent coping style. That said, it can be seen that older children more frequently go to others for help and make an effort to solve the problem, generally more constructive solutions, but also tend to consciously ignore the problem and blame themselves, more counterproductive mechanisms, as we will discuss later.

#### 4.3.1. Neuroticism

The second hypothesis that was presented in Objective 3 (3.2) of this paper, involves the differences that may exist between groups of students with high and low levels of neuroticism. It was postulated that there would be significant differences between these two groups and that they would be the following: people with high levels

of neuroticism will show higher symptom levels in general, specifically more depression, somatic complaints, post-traumatic stress disorder and hypervigilance, as well as their level of victimization. We expected there to be greater incidence of reported victimization among subjects with higher levels of neuroticism. In reference to the mediation analyses, we anticipated that there would be a significant relationship between victimization and adverse psychological symptoms and that this relationship would be mediated in part by neuroticism.

The groups formed, neurotic and non-neurotic subjects, showed very large differences in all aspects of the analyses carried out. All of the symptoms studied showed much higher levels for the neurotic groups in the t-test analyses. Those more neurotic subjects manifested much more problematic psychological profiles than their less neurotic peers and, in accordance with the hypothesis, neurotic adolescents were found to have many more difficulties with post-traumatic stress symptoms, depression and hypervigilance. This was also supported by the relatively high correlations between these symptom scales with neuroticism. More neurotic students also manifested having experienced more aggression and bullying in general, and this is especially true for verbal aggression (for example insults, name-calling and yelling) and indirect aggression (for example rumors and social exclusion). The same was true for physical aggression and punishment, but to a lesser degree. From these results, it is clear that neurotic children and adolescents report more aggression from their peers and that they suffer more psychologically. What is less clear is the reason for this phenomenon. It is likely that this is influenced by many factors and not just one underlying reason.

Taking into consideration existing literature as well as the results achieved here, there are at least four factors that could contribute to the more severe problems that neurotic students face. The first has to do with the very nature of neuroticism. A person with a high level of neuroticism as described by Eysenck and Eysenck (1989) in the introduction as anxious, worried, with mood swings, and often depressed. They may sleep poorly and have psychosomatic symptoms. They also tend to be overemotional, with exaggerated responses to all types of situations. These reactions interfere in their social adaptation and may cause them to react irrationally. This definition leads us to believe that the neurotic person, regardless if they are a victim of bullying or not, will suffer more psychological symptomatology. If they are victimized, it is likely that these

psychological symptoms are exacerbated by the stress. Additionally, their exaggerated responses may lead to further aggression, and a worse psychological outcome. This can be seen in our results on coping styles. Neurotic people tend to use interiorizing coping more (particularly immediate tension release and blaming oneself) which are not only counterproductive to resolving the aggressive situation but are also harmful for the psychological well-being of the person. The results describing the effects of neuroticism on symptomatology and victim status could also be affected by a phenomenon called rumination, described in previous literature as a tendency of the person to dwell on the more negative aspects of their lives, possibly leading them to remember and report more negative events, and this negative self-focus could worsen, or at least lead to a higher manifestation of, psychological symptoms.

The importance of neuroticism in the appearance of psychological symptoms is made clear in the regression analyses where it appears, after interiorizing coping and the existence of bullying, as an important predictor of all psychological symptoms except for general maladjustment (best described as regression). The role that neuroticism plays in the relationship between bullying and the development of psychological symptoms is also very relevant. Students who are bullied at school and show neurotic tendencies are much more likely to have psychological problems. These mediation analyses show that not only the fact that the person is neurotic means that they have more psychological problems, but that the neuroticism acts as an exacerbating factor, that those students that are bullied suffer more psychological problems because they are neurotic.

#### 4.3.2. Extraversion

The next hypothesis presented (3.3) is related to the role that extraversion can play in this same relationship. Part of the literature contends that introverted students experience more bullying (Mynard and Joseph, 1997; Delfabbro et.al, 2006). However other studies found the opposite, that there were no significant differences based on this personality variable. Based on this other part of the literature (Ranf, 2006; Bollmer et.al., 2006) we hypothesized that there would be no significant differences in psychological symptoms between subjects with high and low levels of extraversion, although the interaction with other factors could create these differences. We also anticipated that

there would be no mediating effect of introversion on the relationship between victimization and psychological symptoms.

When comparing extraverted and more introverted subjects, there were several significant differences between the two groups, although these differences were less pronounced than with the other personality variables studied here. When observing the results obtained here, we find that more introverted students tend to avoid situations and places that remind them of their bad experiences. They also manifest more depression and hopelessness, and are more alert to potential threats in their surroundings. They tend to relive their negative experiences more often and show more signs of regression, generalized fear, and/or self-inflicted injury. These adolescents also reported more overall bullying as well as more verbal, indirect and physical aggression. These results were generally supported by the correlations carried out with the different subscales. These results contradict our hypothesis, showing that there is indeed a significantly increased incidence of bullying reported by more introverted students and that they manifest greater psychological distress, particularly post-traumatic stress and depression, than their extraverted peers.

There were also important differences in the way that these students manage their problems. When considering the coping mechanisms used more frequently by more introverted students, most of these fall within the category of interiorizing, especially hiding their problems from others, consciously avoiding coping with the situation and blaming themselves for what happens to them. These mechanisms, as we have seen, are counterproductive for both bettering the situation they are experiencing as well as avoiding the psychological consequences of negative experiences. Extraverted adolescents tend to rely on their friends for support and keep themselves busy with activities and sports. They also confront their problems more actively, trying to solve them and making an effort to improve their situation and their lives in general. These forms of coping lead to better psychological outcomes and serve to improve their relationships with their peers.

Following the comparison of these two groups of students we studied the predictive power of extraversion in determining psychological symptoms and the effect that this personality trait has on the development of psychological difficulties as a result

of bullying experiences. The results of these regression analyses can be seen as contradictory to the t-tests and correlations to some degree. Extraversion was shown to be significantly predictive of psychological symptomatology in general, specifically post-traumatic stress, hopelessness, somatic symptoms and dissociation. It is also predictive of behaviors of acting out with peers and authority figures. All of these variables showed significant, although relatively low, predictive power. These results are surprising, and show a different tendency than that of other analyses presented here. This discrepancy is most likely due to the nature of the sample. Those who were truly introverted were relatively few. Of these subjects, even fewer were also bullied, leaving us with a very small sub-sample. With this reduced group, it is impossible to carry out valid statistical analyses, and it is likely that some had more symptoms than others. However, this group is not comparable to those manifesting high levels of extraversion, who were far greater in number. As a result, the regression analyses, generally shown to be low or non-significant positive betas, are most likely representing a tendency that those who are less extraverted (but not necessarily introverted) are more likely suffer psychological symptoms.

The multiple mediation analyses carried out here, on the other hand, support the idea that, generally speaking, introversion is a personality trait that can lead to the worsening of some psychological symptoms resulting from bullying experiences. Psychological well-being is affected in a general way and introverted victims of bullying manifest more physical complaints such as headaches and abdominal pain, are more physiologically aroused and nervous and act out with more frequency than their peers. Previous literature supports these results to some degree. Ehrler et.al., 1999 showed significant correlations between introversion and depression, anxiety and social problems. It was also found that there was a connection with internalizing difficulties (Olafsen and Viemerö, 2000). Internalizing problems are often associated with somatic complaints.

In conclusion, it is shown that introversion plays a role in bullying phenomena and psychological symptoms, although compared to neuroticism and certain forms of coping, this role is relatively minor. The higher incidence of bullying experienced by more introverted adolescents could be that they generally lack a broad circle of friends and the popularity to shield them from the attacks, making them easier targets. Another

explanation is that as a result of bullying, these children can become more isolated from their peers and less inclined to socialize and enjoy socializing with them. This change in peer relationships and the temporary shift in activities and preferences of the victim could lead to the person feeling more isolated and alone, exposing them to further aggression from their peers. More introverted students may be more prone to internalize their problems leading to more anxiety and somatic symptoms.

### 4.3.3. Coping styles and mechanisms

The way that adolescents cope with their problems affects their situation, their relationships with their peers and how their problems affect their psychological well-being. The next three hypotheses presented in chapter one are related to three different coping styles analyzed here. The first (3.4) was that interiorizing coping would be counterproductive to resolving their victimization and would lead to more psychological symptomatology overall. Interiorizing coping is characterized by a conscious avoidance of the problem, temporarily trying to lessen the anxiety resulting from the situation and interiorizing the problem, refusing to share it with anyone else. Considering the research presented in the introduction, and according to Hypothesis 3.4., we expect this type of coping style to be the least adaptive and most counterproductive of the three. We anticipate that those who manifest higher levels of interiorizing coping have much higher incidences of aggression and suffer greater levels of adverse psychological symptoms. Specifically, we postulated that people with higher levels of interiorizing may show higher levels of depression, PTSD and avoidance, among other symptoms. This could be due to the victims blaming themselves or trying to ignore the problem and not being able to. This group may have higher levels of victimization, as they might avoid the problem or give up instead of trying to resolve the situation. We also anticipated that the use of this coping style will mediate the relationship between victimization and psychological symptoms. The first point that must be made before we consider the coping styles individually, is that victims of bullying reported more coping of all types, although to varying degrees, leading us to the conclusion that those who suffered aggression felt they had more to cope with in general, and used many forms, while those who did not have problems with their peers reported much lower coping overall.

#### 4.3.3.1. Interiorizing coping

The group of students who used more interiorizing coping reported a much higher incidence of all types of aggression, particularly verbal and indirect, bullying in general, and punishment. The directionality of this relationship is unclear, that is, if bullying leads them to use ineffective coping or if their tendency to use this type of coping makes them easier targets for victimization. As these two variables are not isolated, it is probable that their ineffectiveness in dealing with these situations worsens them and that this ineffectiveness can be exacerbated by the stress and continuity of the situation.

Previous research has cited interiorizing coping mechanisms as being more problematic. Cassidy (2009) found that some of the best predictors of victimization are having lower social identity (lesser identification with a social group) and poorer problem solving skills (more helpless, less in control, confident, and less likely to approach and more likely to avoid a conflict). Those who use interiorizing coping rely less on support from their friends, lack the ability to address the problem on their own and instead choose to avoid the situation, leading to further victimization. This was also found in the present study, this coping style being found much more frequently among victims of peer aggression.

The psychological well-being of this group of students is also affected by the specific mechanisms they employ. Kochenderfer-Ladd (2004) found that one of the most commonly used interiorizing mechanisms is cognitive distancing, separating their thoughts and emotions from the stressor, often making a conscious effort not to think about the problem. The author found it can lead to internalizing problems, including somatic complaints and depression. Another study found that self-blame is often associated with anxiety in children. Our results maintain those put forward in previous studies and find that the use of interiorizing coping is very strongly associated with all eleven psychological symptoms studied here and that, in particular, those who use these coping mechanisms are more depressed, more alert to their surroundings and have more post-traumatic stress symptoms. The psychological symptoms of these students were much more severe than those of their peers that did not use these methods of coping as frequently. This leads us to the conclusion that interiorizing not only fails to shield the



person from having negative emotional consequences to adverse events but in fact significantly worsens their psychopathology.

When we consider the predictive power of interiorizing coping we find that it is the best predictor for all of the psychological symptoms studied here. It is especially predictive for feelings of hopelessness and depression, avoiding situations that remind them of their problems and increased physiological arousal. It is also the greatest predictor for overall symptomatology and PTSD symptoms. This type of coping was found to be quite detrimental for the psychological well-being of students in general, not just those bullied. In fact, it was found to be more predictive of psychological problems than the level of bullying itself.

This variable was also found to have the largest effect on the psychological health of bullying victims specifically, for all of the symptom types. The mediation analyses show that interiorizing, more than any other variable, mediated the relationship between bullying and symptomatology. This leads us to the conclusion that interiorizing coping is ineffective and harmful for dealing with bullying situations, possibly contributing to even more bullying in the future and contributing to a pattern of victimization that could potentially lead into adulthood.

When considering the individual coping mechanisms that are included in this style we find that there are some differences, with some being more prejudicial than others. In the mediational analyses carried out, we find that these variables strongly affect the relationship between bullying victimization and psychological symptoms. Of the five interiorizing coping mechanisms, the most detrimental was found to be tension reduction, which includes reducing pressure through physical and verbal outbursts or general evasion. Although this may work, very temporarily, to exteriorize rage and frustration, the effect is momentaneous, does nothing in the short or long term, and, if done in public, can worsen the bullying situation. This is closely followed by blaming oneself. In this case the victim not only does nothing constructive to resolve the situation but adds to the problem even more by feeling guilty and embarrassed, leading to a further sense of helplessness and shame that may prevent them from getting the help they need. Another problematic coping mechanism is not coping at all with the situation, and feeling that the situation cannot be changed, which leads to psychological

difficulties, as the original problem is compounded by a sense of avoidance, helplessness or giving up all together. Ignoring the problem is similar in this regard to not coping, but the problem is pushed aside on a more conscious level, the person refusing to think about it at all. All of these coping mechanisms lead to a worse psychological outcome of those who are bullied. The only non-significant coping mechanism of this type was reserving the problem for oneself, in which the person avoids sharing with others or being around them so that they do not realize what is happening. These results lead us to the conclusion that students who cope with their problems by acting out in a physical release of tension, blaming themselves for their situation, avoiding the situation by doing nothing to try to change it or by refusing to even think about it are much more likely to have more severe psychological problems as a result of their victimization.

#### 4.3.3.2. Exteriorizing coping

Another coping style that was studied here was exteriorizing coping. This coping style is characterized by giving great importance to close friendships and broader social circles as well as social interaction with their peers, including listening to music, reading, going out with friends, as well as participating in sports and other forms of physical exercise. Additionally, there is a conscious effort to think about the problem and better the situation in a constructive manner.

Previous research leads us to believe that certain forms of this coping style can be beneficial in dealing with bullying situations and their consequences. Kanetsuna, et. al. (2006), specifically recommend support seeking, but recognize that it is not very common because victims feel ashamed and do not wish to share their experiences with others. They could lack the solid friendships to offer them such support. Grennan and Woodhams (2007) found that detached and rational coping had minimal and often negative correlations with depression, anxiety and stress.

In hypothesis 3.5 we anticipated that subjects with higher levels of exteriorizing coping would manifest fewer psychological symptoms in general, as they are more likely to confront their problems before they cause more serious psychological harm. We also postulated that this group would have lower levels of victimization, because these coping mechanisms are more adaptive to the situation, promoting problem resolution

and using their social network to ward off bullying attacks. We did not expect exteriorizing to significantly mediate the relationship between victimization and symptomatology in a negative manner. As externalization is shown to be a more adaptive coping style, we believed that there would most likely be an inverse relationship. That is, victims of school aggression may suffer less psychological symptoms if they use this coping style more. We believed that the analysis of the individual coping mechanisms could provide more insight into the nature of this mediating relationship.

When studying the two groups with low and high levels of exteriorizing coping we find that these results are, at first glance, contradictory with the hypotheses proposed in chapter one. Students that reported using exteriorizing coping more frequently also reported significantly more peer aggression of all types as well as overall bullying. The likely explanation for this result is that, generally speaking, students that have fewer problems with their peers are less likely to report what they do in order to cope with their problems. They might feel that they have nothing to cope with, reporting that they do not need to do certain things to cope with problems that may not even exist. Those students who do have more problems with peer aggression probably use many types of coping and are more likely to respond affirmatively overall to the items in the ACS. Given this explanation, it was important to take into consideration the differences between those manifesting high levels of each coping style as well as the relative t-scores of each set of coping style groups, which is what was done in chapter three. It is also important to take into consideration that there are most likely many subjects that are found to be in more than one group, an overlapping of students that employ more than one coping style. That said, the levels of aggression and bullying for those students that use more exteriorizing coping are much lower than those using interiorizing coping and also lower (although not to the same degree) than those that use more reference to others coping. This leads us to believe that the use of exteriorizing coping is more adaptive and helpful in avoiding peer aggression situations.

Since, generally speaking, students reporting more overall coping also reported more aggression, it is logical that they would also report more symptoms. This was found to be true. Those students who used more exteriorizing coping also manifested more psychological symptoms of all types. These levels are similar to those that use reference to others coping but much lower than those using interiorizing coping. The conclusion

that can be reached is that those who use this coping style have fewer psychological difficulties than their peers that use interiorizing coping mechanisms.

When evaluating the predictive power of exteriorizing coping in the appearance of psychological symptoms we found that, in accordance with the hypotheses, exteriorizing has a negative predictive power in several of the variables tested. That is, that exteriorizing leads to a decreased incidence of some types of symptoms. Those who use exteriorizing coping, but are not necessarily bullied at school, suffer significantly less overall symptomatology. Specifically they manifest feeling less hopelessness, self blame and negative self perception. They report less regression and generalized fears, as well as physical and emotional avoidance. They also have fewer problems with nightmares, memory loss and dissociation.

The mediation analyses carried out show us that those students who are bullied and use exteriorizing coping also suffer less hopelessness, general maladjustment and avoidance, and fewer psychological symptoms in general. Globally, this coping style is found to be more adaptive to bullying situations and more likely to mitigate the adverse psychological consequences that bullying can have on the victim.

However, when studying the individual mechanisms that make up this coping style, we find that the results vary greatly. Some are found to be counterproductive, while others are more helpful. For three of these mechanisms found to have a significant impact on the relationship between bullying and symptoms, this impact was shown to be harmful. Having hope, characterized by the expectation that things will improve on their own, was the most ineffective. A positive attitude is maintained, at first, but there is nothing actively done by the person to change the situation. Investing in friends and trying to build new relationships is another mechanism that does not mitigate the effect of bullying as, in theory, it can serve as a welcome distraction and a source of social support, but in this case of victims of bullying, with their generally reduced social circles and difficulty making friends, this can be difficult to employ and even a source of further disappointment. Problem solving was the other significantly detrimental coping mechanism. On the surface, this would appear to be helpful and adaptive for reducing the consequences of bullying, and in fact some previous studies cite it as a particularly useful method. Mahady Wilton, et.al. (2000). found that active problem solving

mechanisms are the most effective immediately and in the long run, deescalating the bullying situation, and avoiding further aggression. However, they comment that these types of coping mechanisms require well developed social skills and social support that victims of bullying may lack. Another plausible explanation for this could be that the victims confront the problem in a way that does not help the bullying situation, by fighting back or protesting in a way that reinforces the bully. This coping mechanism deserves greater study in order to determine exactly how the specific problem of bullying could be solved.

Of the more productive mechanisms we find, although not to a significant level, making an effort and being successful, which is the tendency of a person to overcome difficulties and a desire for personal growth. This characteristic will help the person to not only make a greater effort to resolve their problems and improve their well-being, but also implies tendency to plan for the future and control their actions. The other mechanism with a positive influence on psychological outcome is social support. Friends can allow the person to feel more loved and protected and can help the person with their bullying situation. These friends can also offer advice and help the person to feel better. A student seeking support from their peers is generally an effective way to improve their emotional situation, although in many cases the victim of bullying has a reduced social circle, and sometimes their friends could also be suffering victimization, making this mechanism difficult to carry out to its full potential.

#### 4.3.3.3. Reference to others coping

Hypothesis 3.6 studies the use of reference to others coping and how it can influence bully victimization and subsequent psychological problems. Previous literature described in the introduction emphasizes the importance of other people (friends, teachers, family...) in the resolution of bullying situations (Kochenderfer-Ladd, 2004). The idea is that if the victim feels that they have the support of others they are more likely to overcome adverse situations and recover emotionally. We didn't expect the reference to others coping style to contribute to victimization or a worse psychological outcome, rather the contrary. Furthermore, we postulated that this type of coping style may show to be productive, leading to less severe psychological difficulties as a result of bullying activity.

Adolescents that frequently employed this style of coping had similar levels of aggression and overall bullying as those who used exteriorizing coping, although these were generally slightly higher for the high reference to others group. This group showed much lower levels of all types of aggression and bullying than interiorizing coping. The symptoms they suffer follow a similar trend. The levels of psychological symptoms suffered by students using reference to others coping was practically identical to those experienced by people using high levels of exteriorizing coping. Those who seek help from a school employee or psychologist or enlist more organized help from peers are less likely to be victims than those who use interiorizing coping, but more than those who use exteriorizing coping.

The predictive power that this type of coping has on the psychological symptoms they experience was low, but positive. These adolescents that rely on others, professionals, peers or a higher power, to help them remedy or deal with their problems were more likely to have more overall symptoms. Specifically, they were found to have more problems with regression, nightmares and memory loss, experience more physical pains, reexperience their victimization more through dreams and intrusive thoughts, and be more vigilant of their surroundings. It is possible that the physical manifestations of their psychopathology, such as pain and bedwetting, lead them to consult with medical professionals more often than their peers.

When we studied the mediating role of reference to others coping on the relationship between bully victimization and symptomatology, we observed that the impact was minimal, but generally positive, meaning that, for certain types of symptoms, this type of coping was detrimental. This coping style led to significantly more overall symptoms, and this effect was specifically found for regression and generalized fears, somatic complaints, dissociation and nightmares. These manifestations of a negative psychological state are more evident to third parties, and as such, may have attracted the attention and provoked the intervention of these people. Another explanation could be that the same sense of personal helplessness that may lead them to reach out to others could be provoking the internalizing of their problems, resulting in these symptoms.

Of the three reference to others coping mechanisms, there were differences in the effect that each had on the psychological well-being of bullying victims. Spiritual help, closely followed by social action, were found to be harmful to the recovery of the students. Social action is characterized by the organization of support groups and surrounding oneself with people who have similar problems. In Spain, particularly among adolescents, there is little tendency toward organized action, such as the formation of support groups and the signing of petitions. In an unstructured manner, the grouping of bullied children can be detrimental in two ways. The first is that they may bring even more attention to their problem in a manner which provokes bullies and isolates them from non-bullied peers. The second is that, being surrounded by people that have similar problems could exacerbate their own symptoms by rumination and creating a negative atmosphere that can lead them to feel even more upset. The other detrimental mechanism is seeking spiritual help. If prayer or consultation of a religious figure is used to find solace and reflect on the situation it could be positive. However, many of the people who use this as a way of coping place their problems in the hands of a higher power with the expectation that, the situation will improve if it is “God’s will” and do very little actively to resolve the situation themselves. It is probable that this passivity will do nothing to improve their victimization status and will, on the other hand, lead to a feeling of helplessness and disappointment. The only mechanism related to third parties that had no negative effect on the relationship between victimization and symptoms was seeking professional help, either from a school authority or professional counselor or psychologist. These are individual with the training and authority to, often times, remedy the bullying situation or improve the psychological well-being of the person. The use of this mechanism also shows the disposition of the adolescent to recognize their problems and ask for help, two critical aspects of psychological recovery.

#### 4.4. Personality profile of the bullying victim with severe psychopathology

Using the information garnered in the analyses carried out in chapter three of this thesis, we can create a personality profile of the victim of bullying that is most likely to suffer more severe psychological consequences. Although Spanish boys are the group that suffer more aggression in general, Spanish girls tend to suffer more psychological

consequences. Adolescents that have high levels of neuroticism, otherwise known as emotional instability, are generally anxious, worried, with mood swings, and often depressed tend to be overemotional, with exaggerated responses to all types of situations. The behavioral characteristics of this personality trait can lead to further victimization, while their predisposition to depression, anxiety and general instability can further expose them to psychological problems. These victims also tend to be more introverted, which is characterized by being calm, introspective, reserved, distant (except with close friends) and not impulsive. This person does not get angry or aggressive easily, and tends to be highly ethical and somewhat pessimistic. Often, people manifest both of these personality traits, and this makes them particularly vulnerable to bullying and the psychological consequences of this bullying are more pronounced.

People that manifest this personality profile can lessen the emotional ramifications of their experiences by controlling their responses and choosing their coping methods. This is clearly easier said than done. Students who are both neurotic and introverted generally use forms of coping that are counterproductive and harmful for their emotional well-being. They may react by screaming or crying, refuse to cope with the situation, try to ignore the problem completely, hide their problems from others and blame themselves for what happens to them. These forms of coping are not only linked to increased levels of bullying but also worse psychological symptomatology. The use of these forms of coping could exacerbate a cycle of victimization and mental health problems that could continue well into adulthood.

#### 4.5. Ways to minimize the negative ramifications of school aggression

There are several steps that can be taken in order to lower the incidence of bullying. The first is to train teachers and other school officials to recognize and be more vigilant with aggression among peers. They should make a concerted effort to end aggressive situations in their presence and make an example of them for the other students. If the problem is more severe or continuous measures should be taken to punish the aggressor and the counselor as well as other pertinent employees of the center and the parents of the children involved should be notified. Students should also be taught to be more



sensitive to these problems, either through a school wide project or assembly or in their classrooms. Some schools have initiated mediation programs, where a group of students is selected by teachers and peers based on specific qualities such as trust and discretion. These students volunteer to act as mediators of their peers, first being trained to listen to their peers, initiate conversations among both parties, and know when to report any problems to teachers. Many of the victims are more reluctant to talk to teachers than their peers, and mediation of this type facilitates open communication with a neutral third party as well as with the aggressor.

Since it is very difficult to modify the personality characteristics of a person, namely neuroticism and introversion, a way in which victims can be helped managing the psychological consequences of aggression is informing students, as well as parents, about the most constructive ways to cope with problems. Written information could be distributed to all students and their families detailing the most effective ways to cope with problems. These would be: effective problem solving skills, emphasizing the importance of social support, keeping active and instilling a sense of the importance of striving to make an effort and being successful in the things that they do. Additionally, workshops could be created and offered to students that wish to participate in order to work on the use of these and other coping mechanisms.

#### 4.6. Limitations of this study

The first and most important limitation to be addressed is the nature of the sample. While it is a broad and numerous sample composed of an equal numbers of boys and girls, spanning a broad age range and encompassing a relatively large number of immigrants, there was one important difficulty. The questionnaires were distributed in three middle/high schools in more marginal areas of Valencia that posed several obstacles for the satisfactory completion of the questionnaire and the formation of a sufficiently large sample. The first problem was a very high rate of absenteeism. In any given group the number of students missing could easily reach 30%. This decreased the size of the overall sample, making it necessary to find more subjects the next school year. The absenteeism also made it necessary for the students to finish the questionnaires in only one class period, as the same students may not be there another day to finish.

Chronic absenteeism, sometimes for months or years at a time, was also not uncommon. This creates very different levels of knowledge and abilities among peers of the same age. In one case it was so pronounced that a class of twelve year-olds was completely discarded because of a lack of basic reading skills. These differences in abilities also led to many questionnaires not being completely filled out. While most students finished the questionnaire without difficulties, others would have needed much more time. In retrospect, it may have been better to reduce the length of the questionnaire in order to avoid this problem.

In terms of analyses, it would have been interesting to further isolate the groups of people that used more one type of coping or another to avoid overlapping, for example that subjects use interiorizing and exteriorizing coping to the same degree. This would allow us to better isolate the effects of the use of each coping style in a more pure sense. This was attempted, but very difficult to carry out, and created groups that were not comparable in size, and in some cases too small to carry out reliable analyses.

#### 4.7. Suggestions for future research

There are many aspects of the research presented here that could be extended and studied more profoundly. The considerably lower correlations between victimization of physical aggression and neuroticism as well as all coping styles is an interesting result that deserves further study. The fact that physical aggression is not as harmful as verbal or indirect aggression is an interesting and somewhat surprising result. It may be explained by higher incidence in boys, who reported less overall symptomatology, but is something that should be studied further.

The role of introversion was made more clear here, but is still somewhat enigmatic. It was shown to be, to a certain degree, conducive to more adverse psychological symptoms, but this effect was not as relevant as others. As there is a debate open in the literature as to the extent of the psychological problems that introverted people face, it would be interesting to study further the role of introversion in both peer victimization as well as psychological well-being. It would be interesting to work with a sub-sample of

truly introverted students that is large enough to compare directly to extroverted students. This would allow us to come to more concrete conclusions about the nature of this personality variable and how it affects the psychological well-being of the individual.

In future studies it would also be interesting to further define the three coping styles. Factor analysis led to at least three mechanisms having similar factor weights with two factors. Social support was similarly present in exteriorizing and reference to others coping, as some aspects of this mechanisms relied on emotional support while others focused on more practical support. Problem solving was also found to be similarly weighted on these two factors. Hope was found to be similarly categorized in exteriorizing and interiorizing coping. This could be explained that if the hope for a better future is accompanied by action it could be considered more externalizing, while if this hope is pathological or if the person does not do anything more active it could be considered more interiorizing. Further study of these specific coping mechanisms, as well as worry, lack of coping, ignoring the problem and relaxing diversions could lead us to more answers regarding the beneficial and detrimental facets of each type of coping.

A further study of the interaction of demographic and personality variables would be useful for this type of research. For example, the exploration of the differences between females with high and low levels of neuroticism or immigrants with high and low levels of extraversion could be studied to further explore the importance of these variables individually. The use of multiple mediation analysis, novel and very interesting, could also be used here to study the effect of personality and coping variables on the relationship between bullying and symptoms for the different groups. That is, it would be interesting to see if these effects vary depending on the sex, age or immigrant status of the adolescent. Additionally, multiple mediation could be used to study the effect of the individual coping mechanisms, not only for the total symptomatology, but for each symptom type. These analyses will have to be reserved for the future, however, because the objectives of this thesis were more limited in scope. However, the results could be very interesting in further defining a profile of a victim of bullying that is most likely to suffer psychological difficulties.

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## APPENDICES



## APPENDIX I: QUESTIONNAIRES

### I.I. Student Alienation and Trauma Survey (SATS)

Código #: \_\_\_\_\_

(Esta información es estrictamente confidencial ya que tu nombre no aparece por ninguna parte en esta escala)

1. **Edad** \_\_\_\_\_
2. **Curso** \_\_\_\_\_
3. **Nacionalidad/Etnia:** \_\_\_\_\_
4. **Si eres de otro país ¿cuantos años llevas viviendo en España?** \_\_\_\_\_
5. **¿De que país son tus padres?** \_\_\_\_\_
6. **Sexo:** Chico  Chica
7. **¿Cuantos años llevas en el sistema educativo, incluida la guardería, si fuiste?**  
4  5  6  7  8  más de 8

### MI PEOR EXPERIENCIA EN LA ESCUELA

#### PARTE I

Queremos saber más acerca de las cosas malas que les suceden a los estudiantes en la escuela. Muchos niños han tenido o tienen malas experiencias en la escuela, bien con otro estudiante, bien con un profesor. Este cuestionario te pregunta sobre tus peores experiencias en la escuela. Lee cuidadosamente cada frase. Verás que debajo de cada una de ellas te preguntan dos cosas. En la primera, **cuántas veces** te ha sucedido, responde poniendo un círculo alrededor de los números:

- 0 = no ha sucedido**
- 1 = ha sucedido una vez**
- 2 = ha sucedido pocas veces**
- 3 = ha sucedido muchas veces**
- 4 = sucede todo el tiempo**

y, en la segunda **con quien**, poniendo un círculo alrededor de las letras, donde:

- E = con otro estudiante**
- P = con el profesor**
- A = con ambos**

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 1. Se han burlado de mí.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 2. Me han gritado.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 3. Me han avergonzado.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 4. Alguien me ha amenazado con hacerme daño a mí o a alguien a quien quiero.      | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 5. Han permitido que otros alumnos/as me peguen, empujen o abofeteen.             | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 6. Me han castigado.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 7. Me han expulsado de clase.   | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 8. Me han expulsado de la escuela.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 9. No me han permitido participar en proyectos o actividades especiales.          | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 10. No me han permitido ir al baño.   | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 11. Me han lanzado un libro, un borrador u otra cosa.                             | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 12. Me han dado una paliza.   | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 13. Me han pellizcado o apretado (mano, brazo, etc.) tan fuerte que me ha dolido. | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 14. Me han abofeteado.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 15. Me han empujado.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 16. Me han agarrado muy fuerte.   | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 17. Me han zarandeado.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 18. Me han tirado de las orejas o del pelo.                                       | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 19. Me han golpeado con una regla, palo u otra cosa.                              | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 20. Me han perseguido.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 21. Me han elegido el último para realizar actividades.                           | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 22. Otros alumnos han dejado de hablarme.   | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 23. Alguien ha hecho algo para que a otros no les guste.                          | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 24. Me han puesto la zancadilla.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 25. Alguien me ha hablado de sexo y no me ha gustado.                             | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 26. Alguien ha mentido sobre mí y me ha metido en problemas.                      | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 27. Nadie me ha ayudado cuando pedía ayuda.                                       | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 28. Han hecho que me quedara solo alejado de todo el mundo.                       | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 29. Han hecho comentarios sexuales sobre mí.                                      | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 30. Me han tocado sexualmente.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 31. He visto que sucedía algo muy malo.   | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 32. Me han dado un puñetazo.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 33. Me han forzado a tener relaciones sexuales.                                   | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 34. Me han encerrado en un armario o habitación pequeña.                          | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 35. Me han atado.   | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 36. Me han desnudado y registrado.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 37. Alguien me ha robado algo.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 38. Me han dejado fuera del grupo.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 39. Alguien se ha burlado de mi ropa.   | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 40. Alguien ha inventado un cuento sobre mí.                                      | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 41. He querido ser amigo de alguien que no ha querido ser mi amigo.               | 0 | 1 | 2 | 3 | 4 | E | P | A |

|  |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|
| 42. Alguien ha sacado una pistola, cuchillo u otra arma.                         | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 43. He visto herir gravemente o asesinar a alguien.                              | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 44. He quedado tan malherido que he tenido que ir al hospital.                   | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 45. Alguien me ha molestado cuando iba o venía de la escuela.                    | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 46. Alguien ha dicho cosas malas sobre mi madre o mi familia.                    | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 47. Alguien me ha hecho hacer cosas que no quería hacer.                         | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 48. Alguien no me ha dejado jugar o estar con mis amigos.                        | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 49. Alguien ha hecho que faltara a clase o a la escuela.                         | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 50. Alguien me ha ensuciado la ropa a propósito.                                 | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 51. Alguien conocido se ha suicidado.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 52. He visto que han amenazado a alguien con un cuchillo, pistola u otra arma.   | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 53. Alguien ha dicho que había una bomba en la escuela y que teníamos que salir. | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 54. Me han castigado injustamente.   | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 55. He estado en una pelea.  | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 56. Alguien se ha burlado de mí por mi raza.                                     | 0 | 1 | 2 | 3 | 4 | E | P | A |
| 57. He tenido problemas por algo que he hecho.                                   | 0 | 1 | 2 | 3 | 4 | E | P | A |

\* AHORA VUELVE ATRÁS SOBRE ESTAS FRASES Y HAZ UN CÍRCULO EN EL NÚMERO DE LA FRASE QUE DESCRIBE LA PEOR EXPERIENCIA QUE TE HA SUCEDIDO, SOLO UNA, LA MÁS MALA DE TODAS.

59. Señala la persona o personas con la que has tenido esa mala experiencia.

|                               | Hombre | Mujer |                  | Hombre | Mujer |
|-------------------------------|--------|-------|------------------|--------|-------|
| Profesor/a                    |        |       | Director         |        |       |
| Estudiante                    |        |       | Jefe de estudios |        |       |
| Personal de cafetería/comedor |        |       | Tutor            |        |       |
| Orientador                    |        |       | Otro             |        |       |
| Conserje(s)                   |        |       |                  |        |       |

60. ¿Cuántos años tenías cuando ha ocurrido?.....

61. ¿Durante cuanto tiempo ha ocurrido? .....

62. ¿En qué curso(s) estabas cuándo ocurrió?.....

63. ¿De que nacionalidad/etnia es la(s) persona(s) que te hizo daño?.....

64. Por favor, marca con una cruz la frase que mejor describa cómo te sentiste inmediatamente después de que sucediera:

Realmente no me molestó ( ) Me molestó un poco ( ) Me molestó mucho ( )

I.II. My Worst Experience Scale

PARTE II

Piensa en cuántas veces te has sentido o has actuado de las siguientes maneras desde tu peor experiencia en la escuela. Pon un círculo alrededor del número que mejor lo describe. Los números significan:

- 0 = no ha sucedido
- 1 = ha sucedido una vez
- 2 = ha sucedido pocas veces
- 3 = ha sucedido muchas veces
- 4 = sucede todo el tiempo

Además, si esos sentimientos o malestar han durado más de un mes lo indicas en la columna de la derecha con una X.

|   | 0 | 1 | 2 | 3 | 4 | Duró más de un mes |
|---|---|---|---|---|---|--------------------|
| 1. Me he enfadado mucho sin motivo aparente.  | 0 | 1 | 2 | 3 | 4 | ( )                |
| 2. Me he puesto muy nervioso.   | 0 | 1 | 2 | 3 | 4 | ( )                |
| 3. He molestado a otros niños/as.   | 0 | 1 | 2 | 3 | 4 | ( )                |
| 4. He estado más cansado de lo que suelo estar.   | 0 | 1 | 2 | 3 | 4 | ( )                |
| 5. He pensado que ya no era un chico/a tan bueno como antes.                              | 0 | 1 | 2 | 3 | 4 | ( )                |
| 6. He perdido el apetito.   | 0 | 1 | 2 | 3 | 4 | ( )                |
| 7. Ha sido más difícil motivarme para hacer las cosas.                                    | 0 | 1 | 2 | 3 | 4 | ( )                |
| 8. He querido estar más cerca de mi madre y padre.  | 0 | 1 | 2 | 3 | 4 | ( )                |
| 9. He dejado de comer.  | 0 | 1 | 2 | 3 | 4 | ( )                |
| 10. He pensado en cosas que podía hacer para vengarme de la persona que me ha hecho daño. | 0 | 1 | 2 | 3 | 4 | ( )                |
| 11. No soy tan feliz como antes.  | 0 | 1 | 2 | 3 | 4 | ( )                |
| 12. He soñado despierto/a durante largos períodos de tiempo.                              | 0 | 1 | 2 | 3 | 4 | ( )                |
| 13. He hecho cosas que luego no recordaba haber hecho.                                    | 0 | 1 | 2 | 3 | 4 | ( )                |
| 14. No me importa el futuro.  | 0 | 1 | 2 | 3 | 4 | ( )                |
| 15. Me he puesto a llorar cuando pensaba en mi peor experiencia.                          | 0 | 1 | 2 | 3 | 4 | ( )                |
| 16. He pensado en cosas demasiado malas para decirlas.                                    | 0 | 1 | 2 | 3 | 4 | ( )                |
| 17. He sentido que tenía que andar con cuidado con todo el mundo.                         | 0 | 1 | 2 | 3 | 4 | ( )                |
| 18. Me ha costado concentrarme en las tareas.   | 0 | 1 | 2 | 3 | 4 | ( )                |
| 19. Me he enfadado rápidamente.   | 0 | 1 | 2 | 3 | 4 | ( )                |
| 20. Me cuesta pensar porque recuerdo lo que ha ocurrido.                                  | 0 | 1 | 2 | 3 | 4 | ( )                |
| 21. No puedo entusiasmarme por las cosas como antes.                                      | 0 | 1 | 2 | 3 | 4 | ( )                |
| 22. Me he mantenido alerta para que no me hieran otra vez.                                | 0 | 1 | 2 | 3 | 4 | ( )                |
| 23. He tenido miedo de estar solo/a.  | 0 | 1 | 2 | 3 | 4 | ( )                |

|  |   |   |   |   |   |     |
|--|---|---|---|---|---|-----|
| 24. Me he hecho mis necesidades encima.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 25. He aparentado que no me importa lo que ha pasado.                                | 0 | 1 | 2 | 3 | 4 | ( ) |
| 26. Me he metido en problemas en la escuela.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 27. He deseado morirme.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 28. He tenido pesadillas.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 29. He deseado ser un niño/a pequeño/a otra vez.                                     | 0 | 1 | 2 | 3 | 4 | ( ) |
| 30. He ignorado a mi familia.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 31. He comido hasta vomitar.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 32. He tratado que la gente sea amable conmigo.                                      | 0 | 1 | 2 | 3 | 4 | ( ) |
| 33. Me han dolido zonas del cuerpo sin razón aparente.                               | 0 | 1 | 2 | 3 | 4 | ( ) |
| 34. He pensado en suicidarme.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 35. Ya no he podido estar tranquilo/a  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 36. Me han dado ataques de risa o llanto que no podía controlar.                     | 0 | 1 | 2 | 3 | 4 | ( ) |
| 37. He pensado en lo que había pasado aún cuando no quería pensar en ello.           | 0 | 1 | 2 | 3 | 4 | ( ) |
| 38. He comenzado a comer todo lo que veía.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 39. He tenido miedo a la oscuridad.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 40. He sentido que la vida no valía la pena.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 41. Me he mantenido alejado/a de mis amigos/as.                                      | 0 | 1 | 2 | 3 | 4 | ( ) |
| 42. He pasado mucho tiempo solo/a.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 43. Me ha dolido el estómago.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 44. No he querido estar con mis amigo/as.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 45. No he podido pensar con claridad.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 46. He tenido dificultad para dormir o quedarme dormido/a.                           | 0 | 1 | 2 | 3 | 4 | ( ) |
| 47. He querido estar solo/a.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 48. He vomitado cuando pensaba en lo que me ha sucedido.                             | 0 | 1 | 2 | 3 | 4 | ( ) |
| 49. He dicho que estaba enfermo/a para no ir a la escuela.                           | 0 | 1 | 2 | 3 | 4 | ( ) |
| 50. Me he sentido con ganas de pelear todo el tiempo.                                | 0 | 1 | 2 | 3 | 4 | ( ) |
| 51. He empezado a hacer las mismas cosas una y otra vez.                             | 0 | 1 | 2 | 3 | 4 | ( ) |
| 52. No he podido recordar cosas sobre lo que ha pasado.                              | 0 | 1 | 2 | 3 | 4 | ( ) |
| 53. Me he despertado muchas veces de noche.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 54. He pensado que yo era el/la único/a culpable.                                    | 0 | 1 | 2 | 3 | 4 | ( ) |
| 55. He pensado que mi vida nunca mejoraría.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 56. He tenido miedo de cualquier persona que se pareciera a la que me ha hecho daño. | 0 | 1 | 2 | 3 | 4 | ( ) |
| 57. Aparecen de repente en mi mente imágenes de lo que ha ocurrido.                  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 58. He tenido miedo de ir a mi casa.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 59. Me he mantenido alejado de la persona que me ha hecho daño.                      | 0 | 1 | 2 | 3 | 4 | ( ) |
| 60. Algunas veces he pensado que podía hacerme daño a mí mismo/a o a otra persona.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 61. No he podido hablar de lo que ha sucedido.                                       | 0 | 1 | 2 | 3 | 4 | ( ) |

|   |   |   |   |   |   |     |
|---|---|---|---|---|---|-----|
| 62. Me he sentido como un fracasado/a.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 63. No he podido controlar mis actuaciones o sentimientos.                                  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 64. Me he puesto muy nervioso/a cuando algo me ha sorprendido.                              | 0 | 1 | 2 | 3 | 4 | ( ) |
| 65. Parece como si no me importara lo que me ha sucedido.                                   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 66. He tenido problema para tomar decisiones.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 67. He tenido sueños sobre cosas que no puedo contar a nadie.                               | 0 | 1 | 2 | 3 | 4 | ( ) |
| 68. No he podido prestar atención a las cosas durante tanto tiempo como antes.              | 0 | 1 | 2 | 3 | 4 | ( ) |
| 69. Me he mantenido alejado del lugar donde ha sucedido el hecho.                           | 0 | 1 | 2 | 3 | 4 | ( ) |
| 70. He tenido miedo de que alguien me tocara.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 71. He querido estar solo/a.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 72. He sentido que había hecho algo malo o diabólico.                                       | 0 | 1 | 2 | 3 | 4 | ( ) |
| 73. He hecho cosas que después me han hecho sentirme mal.                                   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 74. Me he sentido solo/a.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 75. He tratado de mantenerme alejado/a de las personas que estaban allí cuando ha sucedido. | 0 | 1 | 2 | 3 | 4 | ( ) |
| 76. He odiado ir a la escuela.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 77. He obtenido malas notas en la escuela.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 78. He tenido tics nerviosos en mi cuerpo.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 79. He comenzado a tartamudear.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 80. He comenzado a chuparme el dedo.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 81. He tenido dolor de oídos.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 82. He comenzado a comerme las uñas.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 83. He comenzado a arrancarme el pelo.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 84. Siempre hablo de lo que ha ocurrido.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 85. Le he contestado mal a los adultos.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 86. He dejado de hacer los deberes.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 87. Los adultos me molestan más que antes.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 88. He hecho lo que quería aunque a la gente lo le gustase.                                 | 0 | 1 | 2 | 3 | 4 | ( ) |
| 89. He comenzado a arrancarme las pestañas.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 90. He tenido problemas para recordar las cosas.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 91. Me he hecho mis necesidades en la cama mientras dormía.                                 | 0 | 1 | 2 | 3 | 4 | ( ) |
| 92. Me he preocupado más de lo normal.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 93. Me ha dolido la cabeza con frecuencia.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 94. No confío en la gente tanto como antes.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 95. No he hecho saber a la gente cómo me he sentido.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 96. He puesto cara triste.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 97. Me he alejado de la gente para estar solo/a.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 98. Me he sentido rabioso/a, pero no se lo he dicho a nadie.                                | 0 | 1 | 2 | 3 | 4 | ( ) |

|  |   |   |   |   |   |     |
|--|---|---|---|---|---|-----|
| 99. He dicho cosas mezquinas a otras personas.                               | 0 | 1 | 2 | 3 | 4 | ( ) |
| 100. He dado portazos.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 101. He comenzado a tomar alcohol.   | 0 | 1 | 2 | 3 | 4 | ( ) |
| 102. He comenzado a tomar drogas.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 103. He comenzado a sentir que la experiencia me estaba ocurriendo otra vez. | 0 | 1 | 2 | 3 | 4 | ( ) |
| 104. He sentido que me iba a morir.  | 0 | 1 | 2 | 3 | 4 | ( ) |
| 105. Siempre estoy esperando que me pase algo.                               | 0 | 1 | 2 | 3 | 4 | ( ) |

### I.III. Adolescent Coping Scale (ACS)

#### ACS

Los estudiantes suelen tener ciertas preocupaciones o problemas sobre temas diferentes, como la escuela, el trabajo, la familia, los amigos, el mundo en general, etc. En este Cuestionario encontrarás una lista de diferentes formas con las que la gente de tu edad suele encarar una gama amplia de problemas o preocupaciones.

Deberás indicar, marcando el número correspondiente, las cosas que tú sueles hacer para enfrentarte a esos problemas o dificultades. En cada afirmación debes marcar el número 0, 1, 2, 3, o 4 según creas que es tu manera de reaccionar o de actuar. No hay respuestas correctas o erróneas. No dediques mucho tiempo a cada frase, simplemente responde lo que crees que se ajusta mejor a tu forma de actuar.

- 0 = **No me ocurre nunca o no lo hago**
- 1 = **Me ocurre o lo hago raras veces**
- 2 = **Me ocurre o lo hago algunas veces**
- 3 = **Me ocurre o lo hago a menudo**
- 4 = **Me ocurre o lo hago con mucha frecuencia**

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. Hablar con otros para saber lo que ellos harían si tuviesen el mismo problema.               | 0 | 1 | 2 | 3 | 4 |
| 2. Dedicarme a resolver lo que está provocando el problema.                                     | 0 | 1 | 2 | 3 | 4 |
| 3. Seguir con mis tareas como es debido.  | 0 | 1 | 2 | 3 | 4 |
| 4. Preocuparme por mi futuro.   | 0 | 1 | 2 | 3 | 4 |
| 5. Reunirme con amigos.   | 0 | 1 | 2 | 3 | 4 |
| 6. Producir una buena impresión en las personas que me importan.                                | 0 | 1 | 2 | 3 | 4 |
| 7. Esperar que ocurra lo mejor.   | 0 | 1 | 2 | 3 | 4 |
| 8. No puedo hacer nada para resolver el problema, así que no hago nada.                         | 0 | 1 | 2 | 3 | 4 |
| 9. Llorar o gritar.   | 0 | 1 | 2 | 3 | 4 |
| 10. Organizar una acción o petición en relación con mi problema.                                | 0 | 1 | 2 | 3 | 4 |
| 11. Ignorar el problema.  | 0 | 1 | 2 | 3 | 4 |
| 12. Criticarme a mí mismo.  | 0 | 1 | 2 | 3 | 4 |
| 13. Guardar mis sentimientos para mí solo.  | 0 | 1 | 2 | 3 | 4 |
| 14. Dejar que Dios se ocupe de mis problemas.   | 0 | 1 | 2 | 3 | 4 |
| 15. Acordarme de los que tienen problemas peores, de forma que los míos no parezcan tan graves. | 0 | 1 | 2 | 3 | 4 |
| 16. Pedir consejo a una persona competente.   | 0 | 1 | 2 | 3 | 4 |



|  |   |   |   |   |   |
|--|---|---|---|---|---|
| 17. Encontrar una forma de relajarme; por ejemplo, oír música, leer un libro, tocar un instrumento musical, ver la televisión. | 0 | 1 | 2 | 3 | 4 |
| 18. Hacer deporte.   | 0 | 1 | 2 | 3 | 4 |
| 19. Hablar con otros para apoyarnos mutuamente.  | 0 | 1 | 2 | 3 | 4 |
| 20. Dedicarme a resolver el problema poniendo en juego todas mis capacidades.  | 0 | 1 | 2 | 3 | 4 |
| 21. Asistir a clase con regularidad.   | 0 | 1 | 2 | 3 | 4 |
| 22. Preocuparme por mi felicidad.  | 0 | 1 | 2 | 3 | 4 |
| 23. Llamar a un amigo íntimo.  | 0 | 1 | 2 | 3 | 4 |
| 24. Preocuparme por mis relaciones con los demás.  | 0 | 1 | 2 | 3 | 4 |
| 25. Desear que suceda un milagro.  | 0 | 1 | 2 | 3 | 4 |
| 26. Simplemente, me doy por vencido.   | 0 | 1 | 2 | 3 | 4 |
| 27. Intentar sentirme mejor bebiendo alcohol, fumando o tomando drogas (no medicamentos).                                      | 0 | 1 | 2 | 3 | 4 |
| 28. Organizar un grupo que se ocupe del problema.  | 0 | 1 | 2 | 3 | 4 |
| 29. Ignorar conscientemente el problema.   | 0 | 1 | 2 | 3 | 4 |
| 30. Darme cuenta de que yo mismo me hago difíciles las cosas.  | 0 | 1 | 2 | 3 | 4 |
| 31. Evitar estar con la gente.   | 0 | 1 | 2 | 3 | 4 |
| 32. Pedir ayuda y consejo para que todo se resuelva.   | 0 | 1 | 2 | 3 | 4 |
| 33. Fijarme en el aspecto positivo de las cosas y pensar en las cosas buenas.  | 0 | 1 | 2 | 3 | 4 |
| 34. Conseguir ayuda o consejo de un profesional.   | 0 | 1 | 2 | 3 | 4 |
| 35. Salir y divertirme para olvidar mis dificultades.  | 0 | 1 | 2 | 3 | 4 |
| 36. Mantenerme en forma y con buena salud.   | 0 | 1 | 2 | 3 | 4 |
| 37. Buscar ánimo en otros.   | 0 | 1 | 2 | 3 | 4 |
| 38. Considerar otros puntos de vista y tratar de tenerlos en cuenta.   | 0 | 1 | 2 | 3 | 4 |
| 39. Trabajar intensamente.   | 0 | 1 | 2 | 3 | 4 |
| 40. Preocuparme por lo que esta pasando.   | 0 | 1 | 2 | 3 | 4 |
| 41. Empezar una relación personal estable.   | 0 | 1 | 2 | 3 | 4 |
| 42. Tratar de adaptarme a mis amigos.  | 0 | 1 | 2 | 3 | 4 |
| 43. Esperar que el problema se resuelva por sí solo.   | 0 | 1 | 2 | 3 | 4 |
| 44. Me pongo malo.   | 0 | 1 | 2 | 3 | 4 |
| 45. Trasladar mis frustraciones a otros.   | 0 | 1 | 2 | 3 | 4 |
| 46. Ir a reuniones en las que se estudia el problema.  | 0 | 1 | 2 | 3 | 4 |
| 47. Borrar el problema de mi mente.  | 0 | 1 | 2 | 3 | 4 |
| 48. Sentirme culpable.   | 0 | 1 | 2 | 3 | 4 |
| 49. Evitar que otros se enteren de lo que me preocupa.   | 0 | 1 | 2 | 3 | 4 |
| 50. Leer un libro sagrado o de religión.   | 0 | 1 | 2 | 3 | 4 |
| 51. Tratar de tener una visión alegre de la vida.  | 0 | 1 | 2 | 3 | 4 |
| 52. Pedir ayuda a un profesional.  | 0 | 1 | 2 | 3 | 4 |
| 53. Buscar tiempo para actividades de ocio.  | 0 | 1 | 2 | 3 | 4 |
| 54. Ir al gimnasio a hacer ejercicio.  | 0 | 1 | 2 | 3 | 4 |
| 55. Hablar con otros sobre mi problema para que me ayuden a salir de él.   | 0 | 1 | 2 | 3 | 4 |
| 56. Pensar en lo que estoy haciendo y por qué.   | 0 | 1 | 2 | 3 | 4 |
| 57. Triunfar en lo que esto haciendo.  | 0 | 1 | 2 | 3 | 4 |
| 58. Inquietarme por lo que me pueda ocurrir.   | 0 | 1 | 2 | 3 | 4 |
| 59. Tratar de hacerme amigo íntimo de un chico o una chica.  | 0 | 1 | 2 | 3 | 4 |
| 60. Mejorar mi relación personal con los demás.  | 0 | 1 | 2 | 3 | 4 |
| 61. Soñar despierto que las cosas irán mejorando.  | 0 | 1 | 2 | 3 | 4 |
| 62. No tengo forma de afrontar la situación.   | 0 | 1 | 2 | 3 | 4 |
| 63. Cambiar las cantidades de lo que como, bebo o duermo.  | 0 | 1 | 2 | 3 | 4 |
| 64. Unirme a gente que tiene el mismo problema.  | 0 | 1 | 2 | 3 | 4 |
| 65. Aislarme del problema para poder evitarlo.   | 0 | 1 | 2 | 3 | 4 |
| 66. Considerarme culpable.   | 0 | 1 | 2 | 3 | 4 |
| 67. No dejar que otros sepan cómo me siento.   | 0 | 1 | 2 | 3 | 4 |

|  |   |   |   |   |   |
|--|---|---|---|---|---|
| 68. Pedir a Dios que cuide de mí.  | 0 | 1 | 2 | 3 | 4 |
| 69. Estar contento de como van las cosas.  | 0 | 1 | 2 | 3 | 4 |
| 70. Hablar del tema con personas competentes.  | 0 | 1 | 2 | 3 | 4 |
| 71. Conseguir apoyo de otros, como mis padres o amigos.  | 0 | 1 | 2 | 3 | 4 |
| 72. Pensar en distintas formas de afrontar el problema.  | 0 | 1 | 2 | 3 | 4 |
| 73. Dedicarme a mis tareas en vez de salir.  | 0 | 1 | 2 | 3 | 4 |
| 74. Inquietarme por el futuro del mundo.   | 0 | 1 | 2 | 3 | 4 |
| 75. Pasar más tiempo con el chico o chica con quien suelo salir.                                 | 0 | 1 | 2 | 3 | 4 |
| 76. Hacer lo que quieren mis amigos.   | 0 | 1 | 2 | 3 | 4 |
| 77. Imaginar que las cosas van a ir mejor.   | 0 | 1 | 2 | 3 | 4 |
| 78. Sufro dolores de cabeza o de estómago.   | 0 | 1 | 2 | 3 | 4 |
| 79. Encontrar una forma de aliviar la tensión; por ejemplo, llorar, gritar, beber, tomar drogas. | 0 | 1 | 2 | 3 | 4 |
| 80. Anota cualquier otra cosa que sueles hacer para afrontar tus problemas.                      | 0 | 1 | 2 | 3 | 4 |

#### I.IV. Eysenck's Personality Questionnaire – Junior (EPQ-J)

### EPQ- J

Las preguntas siguientes se refieren a diferentes modos de pensar y sentir. Después de cada una están las palabras **Sí** y **No**.

Lee cada pregunta y contesta poniendo un **círculo** alrededor de la palabra Sí o la palabra No, según sea tu modo de pensar o sentir. No hay respuestas buenas o malas; todas sirven. Tampoco hay preguntas de truco.

Trabaja rápidamente y no pienses demasiado en el significado de las preguntas.

#### CONTESTA A TODAS LAS PREGUNTAS

- |  |    |    |
|--|----|----|
| 1. ¿Te agrada que haya mucha animación a tu alrededor?                   | Sí | No |
| 2. ¿Cambia tu estado de humor con facilidad?                             | Sí | No |
| 3. Cuando la gente te habla, ¿respondes en general rápidamente?          | Sí | No |
| 4. ¿Te aburres con facilidad?  | Sí | No |
| 5. ¿Frecuentemente te gusta estar solo?                                  | Sí | No |
| 6. ¿Te vienen las ideas a la cabeza que no te dejen dormir por la noche? | Sí | No |
| 7. ¿Eres muy alegre y animoso?   | Sí | No |
| 8. ¿Hay muchas cosas que te molestan?                                    | Sí | No |
| 9. ¿Tienen muchos amigos?  | Sí | No |
| 10. ¿Te sientes alguna vez triste sin ningún motivo para ello?           | Sí | No |
| 11. ¿Te gustaría explorar un viejo castillo en ruinas?                   | Sí | No |
| 12. ¿A menudo piensas que la vida es muy triste?                         | Sí | No |
| 13. ¿Te gusta hacer cosas en las que tengas que actuar con rapidez?      | Sí | No |

|  |    |    |
|--|----|----|
| 14. ¿Te molesta mucho que los mayores te nieguen lo que pides?                                     | Sí | No |
| 15. ¿Te gustaría actuar en una comedia organizada en el colegio?                                   | Sí | No |
| 16. ¿Te sientes herido cuando los demás encuentran faltas en tu conducta o trabajo?                | Sí | No |
| 17. ¿Crees que debe ser muy divertido hacer esquí acuático?  | Sí | No |
| 18. ¿Te sientes frecuentemente cansado sin ningún motivo para ello?                                | Sí | No |
| 19. En general, ¿eres tú quien da el primer paso al hacer un nuevo amigo?                          | Sí | No |
| 20. Al acabar de hacer algo, ¿piensas, generalmente, que podrías haberlo hecho mejor?              | Sí | No |
| 21. ¿Te gusta contar chistes o historietas divertidas a tus amigas?                                | Sí | No |
| 22. ¿Tienes muchas aficiones o te interesas por muy diferentes cosas?                              | Sí | No |
| 23. ¿Algunas cosas te hieren y ponen triste con facilidad?   | Sí | No |
| 24. En una fiesta o reunión, ¿te quedas sentado mirando en vez de divertirte y jugar?              | Sí | No |
| 25. ¿Frecuentemente te sientes "harto de todo"?  | Sí | No |
| 26. ¿Te gusta hacer cosas que te dan un poco de miedo?   | Sí | No |
| 27. ¿A veces te encuentras tan intranquilo que no puedes quedarte sentado mucho rato en una silla? | Sí | No |
| 28. ¿Te gusta estar con los demás chicos y jugar con ellos?  | Sí | No |
| 29. ¿Te gustaría ser paracaidista?   | Sí | No |
| 30. ¿Te preocupas durante mucho tiempo cuando crees que has hecho una tontería?                    | Sí | No |
| 31. ¿Puedes despreocuparte de otras cosas y divertirte mucho en una reunión o fiesta animada?      | Sí | No |
| 32. ¿Piensas frecuentemente que la vida no merece la pena vivirla?                                 | Sí | No |
| 33. ¿Normalmente tomas pronto una decisión y te pones con rapidez a hacer las cosas?               | Sí | No |
| 34. ¿Te distraes con frecuencia cuando estás haciendo alguna tarea?                                | Sí | No |
| 35. ¿Te gusta zambullirte o tirarte al agua en una piscina o en el mar?                            | Sí | No |
| 36. Cuando estás preocupado por algo, ¿te cuesta poder dormirte por la noche?                      | Sí | No |
| 37. ¿Creen que los demás que tú eres muy alegre y animoso?   | Sí | No |
| 38. ¿Te sientes solo frecuentemente?   | Sí | No |
| 39. ¿Te gusta mucho ir de paseo?   | Sí | No |
| 40. ¿Te resulta difícil divertirte en una reunión o fiesta animada?                                | Sí | No |
| 41. ¿Te sientes unas veces alegre y otras triste; sin ningún motivo para ello?                     | Sí | No |
| 42. ¿Te consideras una persona alegre y sin problemas?   | Sí | No |
| 43. ¿Necesitas con frecuencia buenos amigos que te comprendan y animen?                            | Sí | No |
| 44. ¿Te gustaría montar en una motocicleta muy rápida?   | Sí | No |

Si estás afectado después de pensar y escribir sobre el hecho, díselo a la persona que te entregó el cuestionario.

MUCHAS GRACIAS POR TU COLABORACIÓN.

## APPENDIX II: TABLES

## II.I. Aggressive acts: Frequencies and differences between boys and girls

Table 5. Item means and standard deviations according to sex and independent sample t-score (n= 518) (Table continued on the following pages)

| Total   |      | Boys |      | Girls |      | T Score | Affirmative responses |
|---|------|------|------|-------|------|---------|-----------------------|
| Mean  | SD   | Mean | SD   | Mean  | SD   |         | %                     |
| 1. I was teased.  |      |      |      |       |      |         |                       |
| 1.22  | 1.12 | 1.22 | 1.16 | 1.21  | 1.09 | .16     | 62.7                  |
| 2. I was yelled at.   |      |      |      |       |      |         |                       |
| 1.39  | 1.16 | 1.37 | 1.20 | 1.42  | 1.11 | -.51    | 68.9                  |
| 3. I was embarrassed.   |      |      |      |       |      |         |                       |
| .87   | 1.04 | .78  | .99  | .98   | 1.08 | -2.16*  | 49.6                  |
| 4. Someone threatened to do something bad to me or to hit someone I care about. |      |      |      |       |      |         |                       |
| .40   | .84  | .39  | .87  | .40   | .79  | -.09    | 23.3                  |
| 5. Other students were allowed to hit, push, or slap me.                        |      |      |      |       |      |         |                       |
| .26   | 1.70 | .33  | .78  | .18   | .59  | 2.49*   | 15.0                  |
| 6. I was punished.  |      |      |      |       |      |         |                       |
| 1.41  | 1.19 | 1.53 | 1.28 | 1.28  | 1.08 | 2.38*   | 67.1                  |
| 7. I was expelled from class.   |      |      |      |       |      |         |                       |
| 1.10  | 1.10 | 1.26 | 1.14 | .90   | 1.02 | 3.76**  | 60.2                  |
| 8. I was expelled from school.  |      |      |      |       |      |         |                       |
| .16   | .51  | .23  | .62  | .09   | .35  | 3.09**  | 11.6                  |
| 9. I was not allowed to be part of special events or activities.                |      |      |      |       |      |         |                       |
| .33   | .85  | .38  | .90  | .28   | .79  | 1.27    | 17.4                  |
| 10. I was not allowed to go to the bathroom.                                    |      |      |      |       |      |         |                       |
| 1.57  | 1.25 | 1.57 | 1.32 | 1.58  | 1.19 | -.10    | 69.9                  |
| 11. Things like a book, eraser, or something else, were thrown at me.           |      |      |      |       |      |         |                       |
| .77   | 1.03 | .82  | 1.07 | .71   | .98  | 1.22    | 43.9                  |
| 12. I was beaten up.  |      |      |      |       |      |         |                       |
| .09   | .43  | .10  | .46  | .08   | .40  | .50     | 5.7                   |
| 13. I was pinched or squeezed so hard that it hurt.                             |      |      |      |       |      |         |                       |
| .64   | 1.01 | .60  | 1.01 | .68   | 1.01 | -.93    | 35.4                  |
| 14. I was slapped.  |      |      |      |       |      |         |                       |
| .23   | .64  | .28  | .70  | .17   | .56  | 1.91    | 14.3                  |
| 15. I was pushed.   |      |      |      |       |      |         |                       |
| .84   | .99  | .91  | 1.01 | .77   | .97  | 1.53    | 50.4                  |
| 16. I was grabbed very hard.  |      |      |      |       |      |         |                       |
| .48   | .91  | .51  | .95  | .48   | .86  | .82     | 27.4                  |
| 17. I was shaken.   |      |      |      |       |      |         |                       |
| .34   | .74  | .33  | .76  | .35   | .72  | -.29    | 21.0                  |
| 18. I had my ear or hair pulled.  |      |      |      |       |      |         |                       |
| .37   | .75  | .29  | .71  | .45   | .79  | -2.46*  | 23.3                  |
| 19. I was hit with a ruler, paddle or something else.                           |      |      |      |       |      |         |                       |
| .26   | .66  | .32  | .74  | .20   | .55  | 1.99*   | 17.2                  |
| 20. I was chased.   |      |      |      |       |      |         |                       |

APPENDIX II: TABLES

|  |      |     |      |     |      |          |      |
|--|------|-----|------|-----|------|----------|------|
| .40  | .88  | .48 | .98  | .30 | .75  | 2.33*    | 21.7 |
| 21. I was picked last.   |      |     |      |     |      |          |      |
| .57  | 1.00 | .53 | 1.00 | .61 | .99  | -1.01    | 30.2 |
| 22. Other students stopped talking to me.                                      |      |     |      |     |      |          |      |
| .61  | .93  | .35 | .74  | .89 | 1.03 | -6.85*** | 36.6 |
| 23. Someone got others not to like me.   |      |     |      |     |      |          |      |
| .58  | 1.00 | .44 | .91  | .73 | 1.06 | -3.34*** | 30.9 |
| 24. I was tripped.   |      |     |      |     |      |          |      |
| .72  | 1.02 | .76 | 1.03 | .66 | 1.00 | 1.13     | 40.8 |
| 25. Someone talked about sex and I didn't like it.                             |      |     |      |     |      |          |      |
| .22  | .67  | .20 | .65  | .25 | .68  | -.86     | 13.0 |
| 26. Someone lied about me and I got into trouble.                              |      |     |      |     |      |          |      |
| .81  | 1.04 | .76 | 1.05 | .85 | 1.04 | -.98     | 45.8 |
| 27. No one helped me when I asked for help                                     |      |     |      |     |      |          |      |
| .33  | .83  | .39 | .91  | .26 | .73  | 1.67     | 17.6 |
| 28. I was made to stay alone, away from everybody.                             |      |     |      |     |      |          |      |
| .25  | .69  | .18 | .56  | .33 | .80  | -2.46*   | 14.2 |
| 29. Sexual comments were made about me.  |      |     |      |     |      |          |      |
| .46  | .95  | .50 | 1.04 | .41 | .83  | 1.10     | 23.1 |
| 30. I was touched sexually.  |      |     |      |     |      |          |      |
| .24  | .74  | .35 | .89  | .12 | .49  | 3.60**   | 11.7 |
| 31. I saw something really bad happen.   |      |     |      |     |      |          |      |
| .80  | 1.13 | .85 | 1.19 | .75 | 1.07 | .95      | 41.4 |
| 32. I was punched.   |      |     |      |     |      |          |      |
| .30  | .75  | .45 | .87  | .13 | .53  | 4.86***  | 17.0 |
| 33. I was forced to have sex.  |      |     |      |     |      |          |      |
| .03  | .30  | .05 | .37  | .01 | .19  | 1.37     | 1.6  |
| 34. I was locked in a closet or small room.                                    |      |     |      |     |      |          |      |
| .12  | .47  | .14 | .49  | .09 | .45  | 1.32     | 7.6  |
| 35. I was tied up.   |      |     |      |     |      |          |      |
| .03  | .21  | .05 | .29  | .00 | .06  | 2.34*    | 1.9  |
| 36. I was strip-searched.  |      |     |      |     |      |          |      |
| .02  | .21  | .04 | .28  | .00 | .00  | 2.46*    | 1.4  |
| 37. Someone stole something from me.   |      |     |      |     |      |          |      |
| .64  | .92  | .56 | .91  | .72 | .93  | -2.06*   | 39.8 |
| 38. I was left out.  |      |     |      |     |      |          |      |
| .34  | .79  | .25 | .73  | .43 | .84  | -2.51*   | 19.9 |
| 39. Someone made fun of my clothes.  |      |     |      |     |      |          |      |
| .54  | .96  | .49 | .95  | .59 | .96  | -1.20    | 30.6 |
| 40. Someone made up a story about me.  |      |     |      |     |      |          |      |
| .48  | .84  | .38 | .78  | .38 | .89  | -2.76**  | 31.6 |
| 41. I wanted to be friends with someone who didn't want to be friends with me. |      |     |      |     |      |          |      |
| .36  | .77  | .33 | .75  | .07 | .79  | -.78     | 22.5 |
| 42. Someone took out a gun, knife, or other weapon.                            |      |     |      |     |      |          |      |
| .17  | .54  | .27 | .69  | .19 | .28  | 4.40***  | 11.8 |
| 43. I saw someone get badly hurt or killed.                                    |      |     |      |     |      |          |      |
| .21  | .61  | .23 | .67  | .05 | .53  | .84      | 14.1 |
| 44. I was hurt so badly that I had to go to the hospital.                      |      |     |      |     |      |          |      |
| .06  | .32  | .07 | .36  | .34 | .28  | .58      | 4.7  |
| 45. Someone picked on me on my way to or from school.                          |      |     |      |     |      |          |      |
| .36  | .75  | .38 | .77  | .64 | .73  | .64      | 13.1 |
| 46. Someone said bad things about my mother or family.                         |      |     |      |     |      |          |      |
| .75  | 1.01 | .85 | 1.10 | .24 | .88  | 2.37*    | 43.8 |
| 47. Someone made me do something I did not want to do.                         |      |     |      |     |      |          |      |
| .26  | .64  | .28 | .68  | .24 | .60  | .60      | 17.1 |
| 48. Someone would not let me play or be with my friends.                       |      |     |      |     |      |          |      |
| .30  | .71  | .31 | .71  | .28 | .71  | .60      | 17.5 |
| 49. Someone made me miss class or school.                                      |      |     |      |     |      |          |      |
| .31  | .77  | .30 | .77  | .31 | .77  | -.19     | 17.3 |

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|  |      |      |      |      |      |         |      |
|--|------|------|------|------|------|---------|------|
| 50. Someone messed up my clothes on purpose.                         |      |      |      |      |      |         |      |
| .29  | .63  | .33  | .67  | .25  | .58  | 1.56    | 20.6 |
| 51. Someone killed him or herself.                                   |      |      |      |      |      |         |      |
| .11  | .37  | .10  | .38  | .12  | .36  | -.58    | 9.0  |
| 52. I saw someone be threatened with a gun knife or other weapon.    |      |      |      |      |      |         |      |
| .24  | .61  | .28  | .71  | .19  | .49  | 1.56    | 16.3 |
| 53. Someone said there was a bomb in the school and we had to leave. |      |      |      |      |      |         |      |
| .09  | .40  | .09  | .46  | .09  | .33  | -.08    | 6.6  |
| 54. Someone punished me unfairly.                                    |      |      |      |      |      |         |      |
| 1.25   | 1.15 | 1.37 | 1.24 | 1.11 | 1.02 | 2.56*   | 65.2 |
| 55. I was in a fight.  |      |      |      |      |      |         |      |
| 1.09   | 1.11 | 1.24 | 1.11 | .92  | 1.09 | 3.28*** | 58.0 |
| 56. Someone made fun of me because of my race.                       |      |      |      |      |      |         |      |
| .24  | .74  | .26  | .74  | .23  | .75  | .42     | 12.0 |
| 57. I had problems for something I did.                              |      |      |      |      |      |         |      |
| .68  | .94  | .72  | 1.01 | .63  | .86  | 1.05    | 40.1 |
| Total  |      |      |      |      |      |         |      |
| 4.92   | 4.02 | 5.07 | 4.29 | 4.76 | 3.71 | .89     |      |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

## II.II. Aggressive acts: Differences between groups based on immigrant status

Table 6. Item means and standard deviations according to immigrant status and independent sample t-score (Table continued on the next page)

| Item  | Spaniards (n = 402) |      | Immigrants (n = 113) |      | T - score |
|---|---------------------|------|----------------------|------|-----------|
|   | X                   | SD   | X                    | SD   |           |
| 1. I was teased.  | 1.23                | 1.11 | 1.19                 | 1.19 | .29       |
| 2. I was yelled at.   | 1.42                | 1.17 | 1.32                 | 1.10 | .82       |
| 3. I was embarrassed.   | .87                 | 1.02 | .88                  | 1.05 | -.06      |
| 4. Someone threatened to do something bad to me or to hit someone I care about. | .35                 | .80  | .58                  | .95  | -2.62**   |
| 5. Other students were allowed to hit, push, or slap me.                        | .26                 | .70  | .27                  | .73  | -.20      |
| 6. I was punished.  | 1.53                | 1.17 | .99                  | 1.18 | 4.29***   |
| 7. I was expelled from class.   | 1.18                | 1.10 | .84                  | 1.04 | 2.89**    |
| 8. I was expelled from school.  | .18                 | .55  | .10                  | .35  | 1.54      |
| 9. I was not allowed to be part of special events or activities.                | .37                 | .92  | .21                  | 1.23 | 1.71      |
| 10. I was not allowed to go to the bathroom.                                    | 1.62                | 1.23 | 1.35                 | 1.05 | 1.99*     |
| 11. Things like a book, eraser, or something else, were thrown at me.           | .80                 | 1.05 | .67                  | .41  | 1.20      |
| 12. I was beaten up.  | .08                 | .41  | .12                  | 1.03 | -.87      |
| 13. I was pinched or squeezed so hard that it hurt.                             | .68                 | 1.03 | .53                  | .66  | 1.37      |
| 14. I was slapped.  | .22                 | .66  | .24                  | .58  | -.28      |
| 15. I was pushed.   | .90                 | 1.02 | .67                  | .86  | 2.16      |
| 16. I was grabbed very hard.  | .50                 | .93  | .43                  | .85  | .76       |
| 17. I was shaken.   | .36                 | .76  | .28                  | .68  | .95       |
| 18. I had my ear or hair pulled.  | .41                 | .79  | .24                  | .57  | 2.09*     |
| 19. I was hit with a ruler, paddle or something else.                           | .27                 | .67  | .24                  | .62  | .44       |
| 20. I was chased.   | .41                 | .92  | .35                  | .77  | .71       |
| 21. I was picked last.  | .60                 | 1.03 | .47                  | .86  | 1.18      |
| 22. Other students stopped talking to me.                                       | .62                 | .94  | .55                  | .83  | .67       |
| 23. Someone got others not to like me.  | .59                 | 1.03 | .54                  | .88  | .44       |
| 24. I was tripped.  | .80                 | 1.05 | .43                  | .81  | 3.42***   |
| 25. Someone talked about sex and I didn't like it.                              | .24                 | .70  | .13                  | .41  | 1.53      |
| 26. Someone lied about me and I got into trouble.                               | .84                 | 1.06 | .68                  | 1.00 | 1.46      |
| 27. No one helped me when I asked for help                                      | .34                 | .85  | .30                  | .76  | .39       |
| 28. I was made to stay alone, away from everybody.                              | .25                 | .69  | .24                  | .70  | .09       |
| 29. Sexual comments were made about me.   | .46                 | .95  | .45                  | .95  | .10       |
| 30. I was touched sexually.   | .24                 | .73  | .23                  | .77  | .09       |
| 31. I saw something really bad happen.  | .82                 | 1.14 | .77                  | 1.10 | .45       |
| 32. I was punched.  | .32                 | .76  | .23                  | .70  | 1.13      |
| 33. I was forced to have sex.   | .03                 | .33  | .03                  | .16  | .18       |
| 34. I was locked in a closet or small room.                                     | .13                 | .49  | .08                  | .39  | .91       |
| 35. I was tied up.  | .03                 | .24  | .01                  | .09  | 1.02      |
| 36. I was strip-searched.   | .03                 | .23  | .00                  | .00  | -1.36     |
| 37. Someone stole something from me.  | .61                 | .91  | .75                  | .95  | -1.47     |
| 38. I was left out.   | .34                 | .82  | .33                  | .65  | .08       |
| 39. Someone made fun of my clothes.   | .57                 | .97  | .46                  | .91  | 1.12      |
| 40. Someone made up a story about me.   | .46                 | .83  | .55                  | .88  | -.91      |

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|  |      |      |      |      |          |
|--|------|------|------|------|----------|
| 41. I wanted to be friends with someone who didn't want to be friends with me. | .33  | .76  | .46  | .80  | -1.58    |
| 42. Someone took out a gun, knife, or other weapon.                            | .17  | .53  | .19  | .61  | -.24     |
| 43. I saw someone get badly hurt or killed.                                    | .20  | .57  | .27  | .72  | -1.09    |
| 44. I was hurt so badly that I had to go to the hospital.                      | .07  | .36  | .03  | .36  | 1.32     |
| 45. Someone picked on me on my way to or from school.                          | .35  | .75  | .36  | .75  | -.13     |
| 46. Someone said bad things about my mother or family.                         | .79  | 1.05 | .65  | 1.05 | 1.23     |
| 47. Someone made me do something I did not want to do.                         | .28  | .68  | .19  | .68  | 1.38     |
| 48. Someone would not let me play or be with my friends.                       | .31  | .74  | .27  | .74  | .54      |
| 49. Someone made me miss class or school.                                      | .32  | .81  | .26  | .62  | .74      |
| 50. Someone messed up my clothes on purpose.                                   | .32  | .65  | .21  | .53  | 1.50     |
| 51. Someone killed him or herself.   | .10  | .34  | .11  | .45  | -.14     |
| 52. I saw someone be threatened with a gun knife or other weapon.              | .24  | .60  | .24  | .67  | -.01     |
| 53. Someone said there was a bomb in the school and we had to leave.           | .09  | .38  | .09  | .47  | .04      |
| 54. Someone punished me unfairly.  | 1.34 | 1.14 | .95  | 1.11 | 3.20***  |
| 55. I was in a fight.  | 1.14 | 1.12 | .88  | 1.06 | 2.20*    |
| 56. Someone made fun of me because of my race.                                 | .10  | .50  | .78  | 1.15 | -9.19*** |
| 57. I had problems for something I did.  | .72  | .98  | .53  | .82  | 1.93     |
| Total  | 5.07 | 4.10 | 4.43 | 7.74 | 1.49     |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$



## II.III. Aggressive acts: Differences between groups based on age

Table 7. Item means and standard deviations according to age and independent sample t-score (n = 518) (Table continued on the next page)

| Item  | Young Students (n = 203) |      | Older Students (n = 315) |      | T - score |
|---|--------------------------|------|--------------------------|------|-----------|
|   | X                        | SD   | X                        | SD   |           |
| 1. I was teased.  | 1.35                     | 1.16 | 1.13                     | 1.09 | 2.25*     |
| 2. I was yelled at.   | 1.39                     | 1.21 | 1.39                     | 1.12 | -.02      |
| 3. I was embarrassed.   | .90                      | 1.11 | .86                      | .99  | .46       |
| 4. Someone threatened to do something bad to me or to hit someone I care about. | .48                      | .94  | .35                      | .76  | 1.71      |
| 5. Other students were allowed to hit, push, or slap me.                        | .32                      | .77  | .21                      | .65  | 1.69      |
| 6. I was punished.  | 1.51                     | 1.23 | 1.35                     | 1.17 | 1.49      |
| 7. I was expelled from class.   | .93                      | 1.04 | 1.20                     | 1.12 | -2.74**   |
| 8. I was expelled from school.  | .17                      | .50  | .16                      | .50  | .36       |
| 9. I was not allowed to be part of special events or activities.                | .35                      | .85  | .32                      | .52  | .47       |
| 10. I was not allowed to go to the bathroom.                                    | 1.69                     | 1.32 | 1.49                     | .85  | 1.80      |
| 11. Things like a book, eraser, or something else, were thrown at me.           | .78                      | 1.09 | .76                      | 1.21 | .21       |
| 12. I was beaten up.  | .07                      | .33  | .10                      | .48  | -.78      |
| 13. I was pinched or squeezed so hard that it hurt.                             | .71                      | 1.07 | .59                      | .98  | 1.27      |
| 14. I was slapped.  | .29                      | .69  | .19                      | .60  | 1.73      |
| 15. I was pushed.   | .94                      | 1.06 | .78                      | .94  | 1.86      |
| 16. I was grabbed very hard.  | .52                      | .96  | .46                      | .88  | .68       |
| 17. I was shaken.   | .36                      | .79  | .32                      | .70  | .64       |
| 18. I had my ear or hair pulled.  | .38                      | .78  | .36                      | .73  | .36       |
| 19. I was hit with a ruler, paddle or something else.                           | .34                      | .72  | .21                      | .62  | 2.18*     |
| 20. I was chased.   | .46                      | .93  | .36                      | .85  | 1.24      |
| 21. I was picked last.  | .56                      | 1.01 | .58                      | .99  | -.21      |
| 22. Other students stopped talking to me.                                       | .56                      | .92  | .63                      | .93  | -.80      |
| 23. Someone got others not to like me.  | .54                      | .96  | .60                      | 1.02 | -.69      |
| 24. I was tripped.  | .86                      | 1.07 | .62                      | .97  | 2.56*     |
| 25. Someone talked about sex and I didn't like it.                              | .23                      | .66  | .22                      | .67  | .12       |
| 26. Someone lied about me and I got into trouble.                               | .71                      | 1.02 | .87                      | 1.06 | -1.64     |
| 27. No one helped me when I asked for help                                      | .38                      | .94  | .21                      | .75  | 1.23      |
| 28. I was made to stay alone, away from everybody.                              | .27                      | .72  | .24                      | .67  | .46       |
| 29. Sexual comments were made about me.   | .41                      | .90  | .49                      | .98  | -.86      |
| 30. I was touched sexually.   | .21                      | .69  | .26                      | .76  | -.75      |
| 31. I saw something really bad happen.  | .67                      | 1.05 | .89                      | 1.17 | -2.22*    |
| 32. I was punched.  | .36                      | .80  | .26                      | .71  | 1.54      |
| 33. I was forced to have sex.   | .02                      | .23  | .04                      | .33  | -.38      |
| 34. I was locked in a closet or small room.                                     | .14                      | .47  | .11                      | .47  | .76       |
| 35. I was tied up.  | .20                      | .17  | .03                      | .24  | -.63      |
| 36. I was strip-searched.   | .02                      | .20  | .03                      | .21  | -.31      |
| 37. Someone stole something from me.  | .62                      | .98  | .64                      | .88  | -.25      |
| 38. I was left out.   | .35                      | .83  | .33                      | .76  | .26       |
| 39. Someone made fun of my clothes.   | .62                      | 1.01 | .49                      | .92  | 1.40      |
| 40. Someone made up a story about me.   | .39                      | .77  | .54                      | .87  | -1.87     |
| 41. I wanted to be friends with someone who didn't want to be friends with me.  | .36                      | .82  | .35                      | .74  | .08       |

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|  |      |      |      |      |          |
|--|------|------|------|------|----------|
| 42. Someone took out a gun, knife, or other weapon.                  | .12  | .46  | .21  | .59  | -1.72    |
| 43. I saw someone get badly hurt or killed.                          | .11  | .46  | .27  | .68  | -2.97**  |
| 44. I was hurt so badly that I had to go to the hospital.            | .07  | .34  | .06  | .32  | .40      |
| 45. Someone picked on me on my way to or from school.                | .45  | .86  | .30  | .67  | 2.12*    |
| 46. Someone said bad things about my mother or family.               | .88  | 1.05 | .68  | .97  | 2.22*    |
| 47. Someone made me do something I did not want to do.               | .25  | .62  | .27  | .65  | -.24     |
| 48. Someone would not let me play or be with my friends.             | .32  | .72  | .28  | .70  | .71      |
| 49. Someone made me miss class or school.                            | .15  | .50  | .41  | .89  | -3.73*** |
| 50. Someone messed up my clothes on purpose.                         | .33  | .63  | .27  | .62  | 1.18     |
| 51. Someone killed him or herself.                                   | .08  | .30  | .12  | .41  | -1.02    |
| 52. I saw someone be threatened with a gun knife or other weapon.    | .12  | .40  | .31  | .71  | -3.43*** |
| 53. Someone said there was a bomb in the school and we had to leave. | .02  | .14  | .14  | .50  | -3.26*** |
| 54. Someone punished me unfairly.                                    | 1.20 | 1.14 | 1.27 | 1.15 | -.69     |
| 55. I was in a fight.  | 1.04 | 1.06 | 1.12 | 1.14 | -.76     |
| 56. Someone made fun of me because of my race.                       | .29  | .83  | .22  | .68  | 1.02     |
| 57. I had problems for something I did.                              | .63  | .90  | .71  | .97  | -.97     |
| Total  | 4.97 | 4.03 | 4.89 | 4.02 | .23      |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

II.IV. Multiple mediation: Personality mediating the relationship between bullying and psychological symptoms

Table 49. Multiple Mediation analyses to mediate the relationship between bullying and psychological symptoms. Potentially mediating variables are: Neuroticism, extraversion, exteriorizing coping, interiorizing coping and reference to others coping. (n = 448). (Table continued on the next page)

| Independent variable      | Mediating Variable | Effect Size | Product of Coefficient |           | 95% Confidence Interval |        |
|---------------------------|--------------------|-------------|------------------------|-----------|-------------------------|--------|
|                           |                    |             | Stand. Error           | Z-score   | Lower                   | Upper  |
| Total symptoms            | Neuroticism        | .0659       | .0135                  | 4.8933*** | .0423                   | .0964  |
|                           | Extraversion       | -.0140      | .0060                  | -2.3178*  | -.0321                  | -.0043 |
|                           | Exteriorizing      | -.0138      | .0079                  | -1.7400   | -.0381                  | .0008  |
|                           | Interiorizing      | .2040       | .0255                  | 7.9921*** | .1532                   | .2701  |
|                           | Ref to others      | .0136       | .0068                  | 1.9836*   | .0015                   | .0350  |
|                           | Total              | .2556       | .0286                  | 8.9456*** | .1968                   | .3209  |
| Total PTSD Symptoms       | Neuroticism        | .0062       | .0012                  | 4.9710*** | .0040                   | .0088  |
|                           | Extraversion       | -.0009      | .0005                  | -1.7831   | -.0022                  | -.0001 |
|                           | Exteriorizing      | -.0008      | .0007                  | -1.1322   | -.0025                  | .0006  |
|                           | Interiorizing      | .0168       | .0022                  | 7.6956*** | .0122                   | .0219  |
|                           | Ref to others      | .0010       | .0006                  | 1.6530    | -.0001                  | .0029  |
|                           | Total              | .0223       | .0025                  | 8.9558*** | .0172                   | .0281  |
| Impact of the Event       | Neuroticism        | .0028       | .0006                  | 4.4075*** | .0018                   | .0044  |
|                           | Extraversion       | -.0003      | .0002                  | -1.1070   | -.0010                  | .0001  |
|                           | Exteriorizing      | .0000       | .0004                  | .0918     | -.0008                  | .0008  |
|                           | Interiorizing      | .0052       | .0009                  | 5.5370*** | .0034                   | .0076  |
|                           | Ref to others      | .0001       | .0003                  | .2433     | -.0005                  | .0009  |
|                           | Total              | .0079       | .0010                  | 7.7460*** | .0058                   | .0104  |
| Reexperiencing the trauma | Neuroticism        | .0074       | .0017                  | 4.2760*** | .0045                   | .0113  |
|                           | Extraversion       | -.0010      | .0007                  | -1.4428   | -.0029                  | .0001  |
|                           | Exteriorizing      | -.0006      | .0010                  | -.5495    | -.0034                  | .0013  |
|                           | Interiorizing      | .0157       | .0027                  | 5.9024*** | .0029                   | .0226  |
|                           | Ref to others      | .0017       | .0009                  | 1.8352    | -.0001                  | .0046  |
|                           | Total              | .0233       | .0029                  | 7.9403*** | .0175                   | .0300  |
| Avoidance                 | Neuroticism        | .0069       | .0015                  | 4.7062*** | .0042                   | .0102  |
|                           | Extraversion       | -.0002      | .0005                  | -.4598    | -.0016                  | .0007  |
|                           | Exteriorizing      | -.0024      | .0010                  | -2.4128*  | -.0049                  | -.0007 |
|                           | Interiorizing      | .0242       | .0030                  | 8.1464*** | .0181                   | .0321  |
|                           | Ref to others      | .0011       | .0007                  | 1.5489    | -.0001                  | .0033  |
|                           | Total              | .0295       | .0032                  | 9.2029*** | .0233                   | .0374  |
| Increased Arousal         | Neuroticism        | .0076       | .0017                  | 4.4319*** | .0043                   | .0113  |
|                           | Extraversion       | -.0019      | .0008                  | -2.3080*  | -.0042                  | -.0005 |
|                           | Exteriorizing      | -.0001      | .0010                  | -.1486    | -.0026                  | .0019  |
|                           | Interiorizing      | .0221       | .0030                  | 7.2699*** | .0159                   | .0301  |
|                           | Ref to others      | .0010       | .0008                  | 1.1850    | -.0004                  | .0038  |
|                           | Total              | .0287       | .0034                  | 8.4672*** | .0215                   | .0369  |
| Depression                | Neuroticism        | .0086       | .0018                  | 4.8543*** | .0053                   | .0126  |
|                           | Extraversion       | -.0007      | .0006                  | -1.0903   | -.0023                  | .0004  |
|                           | Exteriorizing      | -.0012      | .0010                  | -1.1721   | -.0034                  | .0008  |
|                           | Interiorizing      | .0248       | .0032                  | 7.7426*** | .0181                   | .0325  |
|                           | Ref to others      | .0008       | .0008                  | 1.0284    | -.0010                  | .0029  |

|                          |               |        |       |           |        |        |
|--------------------------|---------------|--------|-------|-----------|--------|--------|
|                          | Total         | .0323  | .0036 | 9.0410    | .0252  | .0401  |
| Oppositional<br>Conduct  | Neuroticism   | .0083  | .0021 | 3.9966*** | .0046  | .0125  |
|                          | Extraversion  | -.0035 | .0013 | -2.7533** | -.0074 | -.0013 |
|                          | Exteriorizing | -.0019 | .0013 | -1.4080   | -.0058 | .0005  |
|                          | Interiorizing | .0200  | .0033 | 5.9929*** | .0128  | .0281  |
|                          | Ref to others | -.0003 | .0010 | -.3313    | -.0025 | .0017  |
|                          | Total         | .0226  | .0033 | 6.7374*** | .0149  | .0304  |
| Hypervigilance           | Neuroticism   | .0070  | .0017 | 4.2158*** | .0043  | .0107  |
|                          | Extraversion  | -.0008 | .0007 | -1.1817   | -.0026 | .0001  |
|                          | Exteriorizing | .0015  | .0010 | 1.4005    | -.0005 | .0039  |
|                          | Interiorizing | .0184  | .0028 | 6.6157    | .0126  | .0255  |
|                          | Ref to others | .0018  | .0009 | 1.9429    | .0001  | .0046  |
|                          | Total         | .0279  | .0033 | 8.4303*** | .0211  | .0355  |
| Somatic<br>Symptoms      | Neuroticism   | .0095  | .0021 | 4.4014*** | .0053  | .0138  |
|                          | Extraversion  | -.0018 | .0009 | -1.9589*  | -.0043 | -.0005 |
|                          | Exteriorizing | -.0017 | .0013 | -1.3384   | -.0048 | .0007  |
|                          | Interiorizing | .0164  | .0031 | 5.3768*** | .0108  | .0230  |
|                          | Ref to others | .0033  | .0013 | 2.4668**  | .0010  | .0070  |
|                          | Total         | .0255  | .0034 | 7.4652*** | .0186  | .0325  |
| Hopelessness             | Neuroticism   | .0049  | .0015 | 3.2713**  | .0023  | .0079  |
|                          | Extraversion  | -.0013 | .0007 | -1.8007   | -.0039 | -.0002 |
|                          | Exteriorizing | -.0040 | .0014 | -2.8990*  | -.0073 | -.0014 |
|                          | Interiorizing | .0274  | .0034 | 7.9973*** | .0207  | .0375  |
|                          | Ref to others | .0009  | .0008 | 1.0652    | -.0004 | .0027  |
|                          | Total         | .0279  | .0033 | 8.4714*** | .0213  | .0374  |
| Dissociation             | Neuroticism   | .0057  | .0016 | 3.5696*** | .0025  | .0089  |
|                          | Extraversion  | -.0013 | .0007 | -1.8049   | -.0035 | -.0002 |
|                          | Exteriorizing | -.0019 | .0011 | -1.7387   | .0053  | .0002  |
|                          | Interiorizing | .0175  | .0028 | 6.3481*** | .0120  | .0260  |
|                          | Ref to others | .0029  | .0011 | 2.5474*   | .0008  | .0071  |
|                          | Total         | .0228  | .0029 | 7.8267*** | .0167  | .0298  |
| General<br>Maladjustment | Neuroticism   | .0015  | .0009 | 1.7581    | -.0009 | .0035  |
|                          | Extraversion  | -.0008 | .0004 | -1.7232   | -.0021 | .0000  |
|                          | Exteriorizing | -.0017 | .0007 | -2.3141*  | -.0051 | -.0002 |
|                          | Interiorizing | .0104  | .0017 | 6.2111*** | .0063  | .0173  |
|                          | Ref to others | .0023  | .0008 | 2.8394**  | .0007  | .0069  |
|                          | Total         | .0117  | .0016 | 7.1090*** | .0082  | .0169  |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

II.V. Multiple mediation: Exteriorizing coping mediating the relationship between bullying and psychological symptoms

Table 50. Multiple Mediation analyses to mediate the relationship between bullying and total psychological symptoms. Potentially mediating variables are exteriorizing coping mechanisms. (n = 482)

| Mediating Variables   | Effect size | Standard error | Z - score | 95% BCA Confidence interval |       |
|-----------------------|-------------|----------------|-----------|-----------------------------|-------|
|                       |             |                |           | Lower                       | Upper |
| Social support        | -.0091      | .0079          | -1.1520   | -.0335                      | .0043 |
| Problem Solving       | .0238       | .0122          | 1.9598*   | .0021                       | .0570 |
| Making effort/success | -.0135      | .0096          | -1.4026   | -.0360                      | .0016 |
| Worry                 | -.0013      | .0110          | -.1151    | -.0282                      | .0221 |
| Investing in friends  | .0208       | .0101          | 2.0606*   | .0049                       | .0464 |
| Belonging             | -.0069      | .0108          | -.6415    | -.0341                      | .0140 |
| Hope                  | .0580       | .0156          | 3.7147*** | .0303                       | .0927 |
| Positive Thinking     | .0082       | .0063          | 1.2914    | -.0018                      | .0305 |
| Relaxing diversions   | .0022       | .0083          | .2616     | .0142                       | .0223 |
| Physical distractions | -.0018      | .0037          | -.4793    | .0132                       | .0044 |
| Total                 | .0805       | .0180          | 4.4758*** | .0387                       | .1228 |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

II.VI. Multiple mediation: Interiorizing coping mediating the relationship between bullying and psychological symptoms

Table 51. Multiple Mediation analyses to mediate the relationship between bullying and total psychological symptoms. Potentially mediating variables are interiorizing coping mechanisms. (n = 484)

| Mediating Variables | Effect Size | Standard Error | Z - score | 95% BCA Confidence interval |       |
|---------------------|-------------|----------------|-----------|-----------------------------|-------|
|                     |             |                |           | Lower                       | Upper |
| No Coping           | .0458       | .0122          | 3.7498*** | .0179                       | .0849 |
| Tension Reduction   | .0816       | .0147          | 5.5306*** | .0179                       | .1278 |
| Ignore problem      | .0147       | .0064          | 2.2812*   | .0545                       | .0361 |
| Self Blame          | .0874       | .0162          | 5.3817*** | .0030                       | .1322 |
| Reserve for self    | .0137       | .0108          | 1.2708    | .0506                       | .0416 |
| Total               | .2432       | .0271          | 8.9855*** | .1842                       | .3147 |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$

II.VII. Multiple mediation: Reference to others coping mediating the relationship between bullying and psychological symptoms

Table 52. Multiple Mediation analyses to mediate the relationship between bullying and total psychological symptoms. Potentially mediating variables are reference to others coping mechanisms. (n = 480)

| Mediating Variables | Effect Size | Standard Error | Z - score | 95% BCA Confidence interval |       |
|---------------------|-------------|----------------|-----------|-----------------------------|-------|
|                     |             |                |           | Lower                       | Upper |
| Social Action       | .0229       | .0092          | 2.4831*   | .0039                       | .0489 |
| Spiritual Help      | .0244       | .0095          | 2.5656*   | .0080                       | .0566 |
| Professional Help   | .0012       | .0049          | .2505     | -.0108                      | .0160 |
| Total               | .0485       | .0130          | 3.7390*** | .0174                       | .0836 |

Significance: \* =  $p < .05$  ; \*\* =  $p < .01$  ; \*\*\* =  $p < .001$



## APPENDIX III: SUMMARY OF THE THESIS IN SPANISH

### **Estresores en la Escuela, Personalidad y Repercusiones para la Salud Mental de los Niños**

**Presentada por: Kristin Marcella Ranf**

**Directoras: Dra. María José Báguena Puigcerver**

**Dra. María Ángeles Beleña Mateo**

#### **INTRODUCCIÓN**

Durante los últimos años, el acoso y la agresión en las escuelas están cobrando más relevancia que nunca. La investigación en este campo empezó con la prevalencia de la agresión en sus muchas formas y con los agresores, sus actos y sus características. En la actualidad se ha extendido hasta incluir a las víctimas, sus características y los efectos psicológicos de la agresión a corto y largo plazo.

Se han realizado numerosos estudios para examinar la naturaleza y frecuencia de la agresión, del acoso escolar y de los tipos de agresión sufridos. Los estudios estiman que entre un 6% y un 11% de los alumnos se identifican como víctimas de acoso escolar, dependiendo de cómo se defina el acoso (Olweus, 1993; Craig, 1998). Cuando se pregunta por los que han sufrido agresión ocasionalmente, este porcentaje asciende hasta el 20% y 30% (Kumpulainen, et.al. 1998). Existe variedad en la literatura, debido tanto a la definición de acoso empleado como de quién es la fuente de la información. Cuando los alumnos informan sobre sus propias experiencias, la incidencia de agresión se muestra mucho más alta que cuando la fuente son los padres o profesores. Ello indica



que los alumnos, en muchas ocasiones, no comunican estos problemas con las personas de su entorno.

En esta tesis se estudian tres tipos de agresión entre alumnos: agresión verbal, física e indirecta, además del castigo aplicado por parte de los profesores y empleados del centro escolar. Una parte de la investigación se ha centrado en explorar las diferencias entre grupos. En la presente investigación, interesan aquellas diferencias entre grupos que relacionan la agresión con el sexo, el hecho de ser o no inmigrante y la edad. Es decir, aquellos aspectos orientados a establecer la existencia de diferencias entre chicos y chicas, inmigrantes y españoles, o entre alumnos de diferentes edades. Generalmente, los niños, a todas las edades, sufren más acoso y castigo que las niñas. Los chicos suelen acosar a los compañeros de su mismo sexo, mientras que las chicas acosan en grupo con más frecuencia que los chicos (Seals y Young, 2003). En la literatura existente, se ha encontrado que los niños generalmente sufren agresión física (peleas, golpes, empujones...) más a menudo que las niñas. Éstas suelen sufrir una agresión más indirecta o social (exclusión, aislamiento, mentiras,...). Ambos sexos experimentan niveles similares de agresión verbal (motes, burlas, gritos...) (Borg, 1999; Ortega y Mora-Merchán, 2000). Estas diferencias se podrían explicar, en parte, teniendo en cuenta las prioridades y la manera de relacionarse que tiene cada sexo. Las niñas generalmente dan más importancia a sus relaciones interpersonales, mientras que los niños priorizan factores de estatus físico y dominancia (Crick, 1996). Por otra parte, las reacciones iniciales ante situaciones de agresión pueden influir en la continuidad de estas. Los niños suelen tener menos control de sus impulsos que puede llevar a reacciones más agresivas, empeorando la situación y reforzando al agresor.

En cuanto a la edad, los más propensos a recibir o proporcionar actos de agresión o acoso tienen entre 8 y 14 años. La frecuencia de estos actos suele reducirse con la edad y su naturaleza evoluciona con la cognición del agresor y la aceptación social de los que le rodean (Rivers y Smith, 1994). Actos más sencillos, como poner motes o insultar, son más frecuentes en niños más jóvenes, mientras que actos más desarrollados, de tipo indirecto, requieren más planificación y cognición propias de niños mayores. Lo mismo ocurre con la agresión física, en la que los actos más graves tienen lugar entre alumnos mayores. El mayor número de víctimas más jóvenes se podría explicar por varios factores: que los niños más pequeños no sean completamente conscientes del daño que causan, que no tienen las habilidades sociales para afrontar situaciones agresivas, o

porque las víctimas mayores sean menos porque se elijan de forma más específica (Smith y Levan, 1995; Ortega y Mora-Merchán, 2000).

Un patrón de victimización puede establecerse cuando el niño es pequeño, persistiendo con la edad (Korchenderfer y Ladd, 1996). La agresión continuada puede provocar una reacción en la víctima que refuerza al agresor y lleva a una continuidad del abuso. Estas acciones y reacciones condicionan las relaciones que la víctima mantiene con sus compañeros y también a cómo se relaciona globalmente, afectando a su confianza con los demás, a la comunicación y las aptitudes sociales en general.

El papel que juega el hecho de ser inmigrante o no en la incidencia de acoso escolar y sus ramificaciones ha sido menos estudiado en la literatura. Estudios llevados a cabo en Austria (Strohmeier, et.al., 2008; Strohmeier y Spiel, 2009) e Italia (Vieno, et.al., 2009) han aportado resultados dispares entre sí. En los primeros, los nativos fueron víctimas y agresores en mayor medida que los inmigrantes. En estas muestras hubo gran número de inmigrantes, y, por lo general, cada grupo mantenía más amistad con los de su propio país de origen, probablemente aportándoles un cierto apoyo social y limitando el contacto con los austriacos, que eran, con diferencia, los acosadores con más frecuencia. En un estudio realizado en Italia, con una muestra con pocos inmigrantes, se encontró que éstos fueron victimizados más a menudo. Además, los inmigrantes parecían tener más problemas de salud y psicosomáticos, menos satisfacción con sus vidas y más infelicidad en general. Las características de la muestra de inmigrantes son fundamentales, siendo especialmente importante la integración social, la habilidad comunicativa a través del idioma y el apoyo social. Si existe una barrera lingüística o cultural importante, puede ser determinante en los resultados.

Asimismo, esta investigación se ha orientado hacia el estudio de las características de la personalidad y el papel que pueden tener en el hecho de ser agresor o víctima, así como en la forma en que impacta en el bienestar psicológico de los niños. Es un área de estudio relativamente nueva que puede abrir las puertas a un conocimiento más profundo del tema de la agresión y sus ramificaciones. Además, puede ser útil para trabajar en la prevención y para minimizar los daños psicológicos ocasionados.

Las características de personalidad que se han estudiado en este trabajo son el neuroticismo y la extraversión. La inestabilidad emocional que caracteriza el neuroticismo se encuentra con más frecuencia en víctimas de acoso, la dificultad en la

regulación de emociones suele ocasionar tensiones y puede llegar a empeorar las relaciones entre los alumnos. La literatura también vincula el neuroticismo con niveles más altos de síntomas psicológicos, particularmente depresión, ansiedad, somatización y síntomas postraumáticos (Ehrlert, et.al, 1999; Ranf, 2006). La propia naturaleza del neuroticismo, específicamente la rumiación negativa, que hace que la persona neurótica se enfoque más en lo negativo, le suele llevar a un mayor malestar emocional y a unos comportamientos sociales contraproducentes.

La relación que mantiene la extraversión con el acoso está menos establecida. Es una característica menos estudiada y, aunque en general los estudios vinculan la introversión con un mayor índice de acoso (Mynard y Joseph, 1997), en otros casos no se han encontrado diferencias significativas entre alumnos introvertidos y extravertidos. La relación entre la introversión y los síntomas psicológicos es más clara. Así, los alumnos más introvertidos manifiestan, en general, más problemas emocionales, sobre todo ansiedad y depresión (Ehrlert, et.al., 1999; Ranf, 2005).

Además de estas características de personalidad, se estudiará cómo la manera de afrontar problemas influye en la victimización y los síntomas psicológicos posteriores. La literatura previa sugiere que los mecanismos más adaptativos para estas situaciones son los más activos, confrontar el problema, tanto cognitivamente como en su comportamiento e intentar resolverlo (Kochenderfer-Ladd y Skinner, 2002). Los mecanismos menos útiles son los pasivos, cuando la persona evita, física o cognitivamente, situaciones adversas. La internalización del problema, culpándose a uno mismo, o mediante comportamientos autodestructivos, dificulta mucho el buen manejo del problema.

Las secuelas psicológicas que surgen a raíz del acoso escolar constituyen un fenómeno que también ha sido estudiado con frecuencia. Se ha encontrado que los índices de depresión son mayores (casi el doble) en las víctimas de acoso, sobre todo en chicas, y que esta depresión podría llevar a más victimización. La ansiedad, los síntomas psicósomáticos y los problemas con la autoestima también han sido encontrados significativamente más en víctimas de acoso (Hawker y Boulton, 2000). La emergencia del trastorno por estrés postraumático es un fenómeno que tan sólo de forma reciente ha sido estudiado en relación con la agresión y el acoso en los colegios. Varios estudios han encontrado que víctimas de agresión manifiestan más sintomatología de este tipo, y

que pueden tener efectos a largo plazo (Ateah, et.al., 2004; Ranf, et.al., 2006). En esta tesis se han estudiado once grupos de síntomas, incluyendo los cuatro tipos que componen el trastorno por estrés postraumático. Averiguar los efectos emocionales y comportamentales del acoso escolar es fundamental para entender mejor este grave problema y mejorar la calidad de vida de los que son o han sido acosados por sus compañeros.

En la presente tesis doctoral se han estudiado cuatro tipos de agresión: verbal, física, indirecta y castigo (por parte de los profesores) con alumnos desde 1º de la ESO a 1º de Bachillerato. Hemos examinado diferencias entre grupos según sexo, edad, nacionalidad y características de personalidad como el neuroticismo y la introversión. Hemos explorado cómo la personalidad y los mecanismos de afrontamiento que utilizan las víctimas pueden afectar a la severidad del acoso al que están sometidos, así como la naturaleza y severidad de los síntomas psicológicos que padecen. Además, se ha utilizado una novedosa técnica de mediación múltiple para identificar y cuantificar el papel que juega la personalidad y la manera con la que los adolescentes afrontan los estresores en el desarrollo de problemas psicológicos a raíz del acoso escolar.

TEMA: Agresión y acoso escolar: prevalencia, tipos de agresión, diferencias entre grupos de víctimas, efectos psicológicos y la relación que guarda con aspectos de la personalidad de la víctima y su forma de afrontar estresores.

## **OBJETIVOS E HIPÓTESIS**

Objetivo 1. Explorar la prevalencia de experiencias de agresión y el acoso y analizar las diferencias entre grupos. Estudiar la prevalencia de cuatro tipos de agresión (física, verbal, indirecta y castigo) y acoso y analizar las diferencias entre grupos basadas en: sexo, edad, nacionalidad y niveles de características de personalidad y afrontamiento.

### Hipótesis:

- Se esperan diferencias importantes en el tipo de agresión, en especial entre chicos y chicas. En los chicos anticipamos una mayor prevalencia de agresión física, en las chicas más agresión

indirecta, mientras que ambos grupos tendrán niveles parecidos de agresión verbal.

- Los niveles de agresión y acoso según nacionalidad serán parecidas, salvo algún tipo de insulto o broma relacionado directamente con su nacionalidad.
- Los niveles en cuanto a los tipos de agresión y acoso para diferentes edades serán parecidos. Sin embargo, se esperan diferencias puntuales relacionadas con la complejidad y gravedad de algunos ítems.

Objetivo 2. Explorar los efectos psicológicos del acoso a corto plazo. Estudiar las diferencias entre los sujetos que han sufrido eventos aislados y los que han sido objeto de agresiones continuas. Examinar las diferencias entre grupos de diferentes sexos, edades, y entre inmigrantes y españoles. También analizaremos las diferencias en síntomas según el tipo de victimización experimentada.

Hipótesis:

- Anticipamos que las víctimas de acoso, en general, sufrirán más síntomas psicológicos, especialmente depresión, síntomas de estrés postraumático, hipervigilancia y conducta oposicional.
- Prevemos que las niñas manifestarán más síntomas en general, particularmente depresión y quejas somáticas. Es posible que los niños tengan más problemas con la conducta oposicional.
- No anticipamos diferencias importantes en sintomatología entre grupos formados por diferentes edades o nacionalidades.

Objetivo 3. Explorar la influencia que tienen las características de la personalidad sobre la prevalencia de agresión y acoso, el bienestar psicológico del niño, y la relación que puede haber entre ambos. Explorar si los aspectos emocionales (extraversión y neuroticismo) de la personalidad median las relaciones entre el nivel de agresión (el estresor) y sus consecuencias para el bienestar psicológico de los niños. Además, se va a explorar el papel de los aspectos cognitivos de la personalidad (estilos y mecanismos de afrontamiento) en la incidencia de acoso y la aparición de síntomas

psicológicos y ver si estos median la relación entre el nivel de agresión y sus consecuencias para la salud mental de los niños. Además, se estudiarán los mecanismos específicos utilizados por las personas que sufren más o menos agresión y acoso, identificando cuáles se asocian a un mejor pronóstico psicológico.

Hipótesis:

- Esperamos que los sujetos que demuestren más neuroticismo sufran más agresión por parte de sus compañeros y, además, sufran más síntomas psicológicos a raíz de estas agresiones.
- La introversión puede estar vinculada también a la victimización y a los subsiguientes síntomas psicológicos, si bien esta relación está menos consensuada. Por lo tanto, no anticipamos grandes diferencias entre sujetos más o menos extravertidos, aunque puedan existir.
- En cuanto a los estilos de afrontamiento, anticipamos que algunos estilos serán más eficaces que otros. Esperamos que los alumnos que emplean más el estilo de afrontamiento de *interiorización* tengan más problemas con el acoso y la sintomatología adversa. Específicamente, es posible que tengan niveles más altos de depresión y TEP (trastorno por estrés postraumático). Es probable que la *interiorización* medie la relación entre el acoso y los síntomas.
- Los estilos de *exteriorización* y *referencia a otros* pueden ser más eficaces en evitar situaciones de acoso y en la aparición de síntomas psicológicos que la *interiorización*. No esperamos que tengan un efecto negativo y puede que incluso mejoren la situación de las víctimas.

## METODOLOGIA

### Muestra

La muestra está compuesta por 519 sujetos (273 chicos y 246 chicas) de nacionalidades variadas, con edades comprendidas entre 11 y 19 años, siendo la edad media de 14,8 años, con una desviación típica de 1,44. Están escolarizados en tres centros públicos de la zona Marítima de Valencia capital (IES Islas Baleares, IES Cabañal y IES el Grao) y cursan estudios entre 1º de la ESO y 1º de Bachillerato. El 79,1% de la muestra posee nacionalidad española y el 20,9% restante proviene de otros países, especialmente de Sudamérica y Europa. De los 519 sujetos de la muestra total, 451 de ellos completaron todos los cuestionarios.

### Instrumentos

Se utilizarán los siguientes instrumentos de medida:

1. *SATS (parte I) The Student Alienation and Trauma Survey*. Se trata de la primera parte del cuestionario MWES (*My Worst Experience Scale*) desarrollado por Hyman et al. (2002). Esta primera parte está compuesta por 57 ítems, donde a los alumnos se les pregunta sobre eventos específicos que pueden haberles ocurrido durante su etapa en la escuela. Cada pregunta tiene dos partes: la primera, demanda a los sujetos que indiquen la frecuencia con la que ocurrieron los incidentes, respondiendo según una escala tipo Likert, de 0 a 4 (0= no sucedió y 4= todo el tiempo). La segunda parte pregunta sobre el agresor: otro estudiante, un/a profesor/a, o ambos. Después de rellenar el cuestionario el sujeto tiene que marcar la peor experiencia de todas y responder algunas preguntas acerca de ella.
2. *MWES (Parte II) (My Worst Experience Scale)* Esta parte consta de 105 preguntas sobre conductas, pensamientos y emociones que pueden haber experimentado después de su peor experiencia en la escuela. Los sujetos responden sobre la frecuencia de los ítems, marcando en una escala Likert de 0 (no sucedió) a 4 (todo el tiempo). A continuación, deben marcar con una “x” si habían experimentado estos síntomas durante más de un mes. El cuestionario incluye 11 subescalas de síntomas: Depresión, Desesperanza, Síntomas Somáticos, Conducta Oposicional, Hipervigilancia, Disociación/Sueños, Desajuste General

y cuatro grupos de síntomas del trastorno por estrés post-traumático (Impacto del evento, Reexperimentación del trauma, Evitación/Embotamiento e Hiperactivación). Algunos ítems en estas dos escalas se han modificado ligeramente para ajustarse al lenguaje de los alumnos de las edades incluidas en la muestra.

3. *ACS (Adolescent Coping Scales)* Este cuestionario consiste en 80 preguntas relacionadas con 18 mecanismos de afrontamiento: Buscar apoyo social, Concentrarse en resolver el problema, Esforzarse y tener éxito, Preocuparse, Invertir en amigos íntimos, Buscar pertenencia, Hacerse ilusiones, Falta de afrontamiento, Reducción de la tensión, Acción social, Ignorar el problema, Autoinculparse, Reservarlo para sí mismo, Buscar ayuda espiritual, Fijarse en lo positivo, Buscar ayuda profesional, Buscar diversiones relajantes, y Distracción física. Los ítems son de tipo Likert de 0 (nunca) a 4 (con mucha frecuencia).
4. *EPQ-J (Eysenck Personality Questionnaire)* Para este trabajo se ha utilizado dos de las cuatro subescalas del cuestionario: la de Neuroticismo y la de Extraversión/Introversión. Está compuesta por 44 ítems con formato de respuesta “sí” o “no”, que engloban las formas de pensar y sentir que tienen los sujetos en su vida cotidiana.

### **Procedimiento**

Los cuestionarios fueron administrados de forma colectiva por la investigadora en horario lectivo, con el apoyo del profesorado. Se informó a los estudiantes del objetivo de la investigación, dándoles instrucciones para la realización del cuestionario y garantías de anonimato. La duración de las aplicaciones fue de entre 40 minutos y una hora y diez minutos.

### **Análisis**

Para cumplir los objetivos de esta investigación se llevaron a cabo los siguientes análisis:

Fiabilidad: Alfa de Chronbach para determinar la fiabilidad de todas las escalas.

Frecuencias: Frecuencias y medias para las variables demográficas y los eventos adversos en el SATS.



Análisis Factorial: El ACS fue sometido a un análisis factorial para determinar los estilos de afrontamiento.

Correlaciones: Los tipos de agresión, síntomas, variables demográficas y de personalidad fueron correlacionados para estudiar las relaciones entre ellos.

Pruebas T de Student: Se realizaron pruebas T de muestras independientes para estudiar las diferencias entre grupos definidos en función de variables demográficas, en cuanto a agresión, síntomas y variables de personalidad. Se realizaron estos mismos análisis para determinar las diferencias entre grupos definidos en función de niveles de victimización, síntomas, variables de personalidad y afrontamiento.

Regresión: Se utilizó para determinar los factores que predicen la presencia de síntomas psicológicos.

Mediación Múltiple: Se aplicó una “macro” de mediación múltiple para determinar las variables que median en la relación entre acoso escolar y síntomas psicológicos.

## **RESULTADOS**

Los resultados de los análisis llevados a cabo coinciden en gran parte con las hipótesis propuestas. En primer lugar, destaca comentar que todas las escalas utilizadas presentaron una consistencia interna alta, tanto en la muestra total como en los grupos compuestos por niños, niñas, españoles e inmigrantes. Lo mismo ocurrió para las subescalas del MWES.

### **Agresión: Tipos de agresión, diferencias entre grupos y consecuencias psicológicas**

Al examinar las frecuencias de las experiencias adversas en el colegio, encontramos ciertos actos prácticamente universales, como los gritos y las burlas. Aproximadamente la mitad de los alumnos experimentaron humillaciones, peleas, empujones, mentiras, zancadillas, faltas de comunicación verbal y conductas de aislamiento social. Además, la mayoría admitieron haber sido castigados de forma injusta o expulsados de clase.

En términos generales, los chicos experimentaron más agresión física de todo tipo y fueron castigados de forma contundente con más frecuencia, mientras que las chicas tuvieron más problemas en relación a la agresión indirecta, sobre todo relacionada con la exclusión social. Ambos sexos manifestaron niveles casi idénticos de agresión verbal. Los españoles fueron agredidos físicamente con más frecuencia y tuvieron más problemas con los profesores que los extranjeros, mientras que los dos grupos sufrieron de manera similar la agresión verbal e indirecta, con la notable excepción de burlas relacionadas con la raza o procedencia, que fueron mucho más comunes en inmigrantes. Los estudiantes más jóvenes sufrieron niveles de agresión ligeramente superiores que sus compañeros mayores, salvo en agresión indirecta. Cuando examinamos cada evento de forma aislada nos damos cuenta de que los mayores, aunque manifiestan menos agresión en general, suelen tener episodios más graves y elaborados, mientras que los más pequeños emplean técnicas más sencillas y menos personalizadas. Por lo general, las agresiones verbal e indirecta guardan una mayor relación con síntomas psicológicos adversos. Esta tendencia se aprecia también, aunque en menor grado, en la agresión física.

### **Consecuencias psicológicas de la agresión: Diferencias entre grupos**

Cuando estudiamos las diferencias entre los estudiantes que fueron acosados con asiduidad y los que no tuvieron dichos problemas, nos encontramos con que los primeros sufren muchos más síntomas psicológicos en general, sobre todo el estrés postraumático, la depresión y la hipervigilancia. Este resultado revela el efecto dañino que tiene el acoso escolar sobre el bienestar psicológico de los alumnos.

Las niñas, en general, padecen más síntomas que los niños, salvo en conducta oposicional y desajuste general. Esta tendencia se mantiene, aunque en menor medida, cuando nos limitamos a estudiar los que han sido acosados. Los mismos análisis realizados con grupos de españoles e inmigrantes no mostraron ninguna diferencia entre ellos, salvo en el impacto del evento, más notable entre los españoles. Los niños mayores, en general, y los que han sido acosados, están más atentos a su alrededor y a posibles amenazas que los niños más jóvenes.

### **Características de la personalidad: Diferencias entre grupos**

Se han estudiado cinco características de personalidad, dos de ellas con componente emocional (neuroticismo y extraversión) y tres de tipo cognitivo (estilos de afrontamiento). Tras un análisis factorial, definimos los tres estilos de afrontamiento: Interiorización, exteriorización y referencia a otros. La interiorización incluye ignorar o esconder el problema, culparse a sí mismo, reducir la tensión (gritando o llorando) o simplemente no hacer nada. La exteriorización es más activa e implica apoyarse en amigos, distraerse, pensar en el problema y enfocarse en lo positivo y realizar acciones concretas para mejorar la situación o su vida en general. La variable referencia a otros se refiere a la petición de ayuda o apoyo a una autoridad en la escuela, búsqueda de apoyo espiritual rezando o acudiendo a algún miembro de la iglesia, u organizarse con compañeros para buscar una solución al problema.

Una vez determinadas las variables de personalidad, comparamos los diferentes grupos demográficos. Encontramos que las niñas poseen niveles más altos de neuroticismo y los tres tipos de afrontamiento, sobre todo la exteriorización. Los niveles de extraversión fueron prácticamente idénticos. Específicamente, las diferencias en afrontamiento más importantes se encontraron en la reducción de la tensión (probablemente llorando), el apoyo social y preocupación por el futuro. La utilización de actividades deportivas para distraerse fue ligeramente superior en los niños.

La única diferencia entre españoles e inmigrantes tiene relación con el estilo de afrontamiento de referencia a otros, el cual es más utilizado, en general, por los inmigrantes. De forma específica, los inmigrantes acudieron con mayor frecuencia a la iglesia y al rezo que los españoles, mientras que éstos se decantaron más por la acción social. En cuanto a niveles de las otras variables, los inmigrantes se mostraron ligeramente más neuróticos. Los niveles de extraversión y afrontamiento de tipo interiorización y exteriorización fueron prácticamente idénticos.

En cuanto a la edad, las únicas diferencias entre los grupos se hallaron en el afrontamiento, encontrándose que los mayores utilizaban más los tres tipos. Las mayores diferencias encontradas en mecanismos se relacionaron con el apoyo de los amigos, la preocupación por el futuro e ignorar el problema.

Las correlaciones más altas con los síntomas psicológicos se encontraron, con diferencia, en el afrontamiento de interiorización, seguido por el neuroticismo. Los estilos de afrontamiento de exteriorización y referencia a otros fueron moderadamente correlacionados con los síntomas adversos, y ambos de forma similar. La extraversión tuvo, por lo general, correlaciones negativas y relativamente bajas con los síntomas. En cuanto a niveles de acoso, la mayor relación es la que se da con la interiorización, seguido por el neuroticismo y, mucho menor, con los otros dos estilos de afrontamiento.

Para estudiar más a fondo el papel de la personalidad en síntomas psicológicos y victimización, decidimos comparar grupos con niveles relativamente altos y bajos de estas características. Es importante tener en cuenta que cada grupo de nivel está compuesto por una tercera parte del total de los sujetos. Un tercio con los niveles más altos y otro tercio con los niveles más bajos, obviando el tercio situado en medio. No se puede concluir, en ningún momento, que estos sujetos tengan un nivel clínicamente significativo como para llegar a clasificarlos como neuróticos o extrovertidos, por ejemplo.

Los sujetos más neuróticos manifestaron niveles de sintomatología muy superiores a los de sus compañeros poco neuróticos, especialmente síntomas de estrés postraumático, depresión e hipervigilancia. También presentaron más problemas con la agresión escolar de todo tipo, pero especialmente verbal e indirecta. En cuanto a los mecanismos de afrontamiento, admitieron usar gran parte de ellos con mayor frecuencia que sus compañeros no neuróticos, sobre todo los de interiorización.

A continuación, se realizaron los mismos análisis comparando grupos formados en función de sus niveles de extraversión. Los más introvertidos manifestaron más sintomatología en general, y esta tendencia se aprecia sobre todo en eludir aspectos que recuerdan malas experiencias y depresión. También sufrieron más agresión en general, particularmente agresión indirecta y acoso generalizado. Los relativamente introvertidos emplearon afrontamiento de tipo interiorización con mayor frecuencia, mientras que los más extrovertidos usaron más la exteriorización y la referencia a otros (salvo el apoyo espiritual).

Llevamos a cabo análisis similares con los niveles de estilos de afrontamiento. En este punto, es importante destacar la existencia de una tendencia en las respuestas, ya que los sujetos que más problemas manifiestan tener, admiten en mayor grado el uso, en

general, de todos los estilos de afrontamiento. Por ello, es importante no sólo considerar las diferencias entre los grupos dentro de cada estilo, sino también compararlos entre ellos y considerar las diferencias que existen entre los que utilizan con frecuencia cada estilo de afrontamiento.

Los alumnos que manifestaron usar más la exteriorización tuvieron niveles significativamente más altos en neuroticismo y extraversión. También tuvieron más problemas con la agresión y el acoso en general, sobre todo con agresión verbal e indirecta, pero no con el castigo. Los sujetos que emplean este estilo sufrieron más síntomas psicológicos de todo tipo, especialmente hipervigilancia y disociación.

Los alumnos que emplearon más referencia a otros también registraron niveles más altos de neuroticismo y extraversión, pero estas diferencias no fueron tan importantes como las encontradas en los sujetos que usan más la exteriorización. Los que tiene niveles altos en estos dos estilos de afrontamiento manifestaron niveles parecidos en agresión y acoso y también en síntomas psicológicos. La mayor diferencia entre los grupos con niveles altos de estos dos estilos fue que los que utilizaron más referencia a otros manifestaron niveles más altos de estrés postraumático.

La mayor diferencia se aprecia al estudiar los grupos de niveles bajos y altos de afrontamiento de interiorización. Los alumnos que emplean este tipo de afrontamiento demuestran más neuroticismo, menos extraversión, niveles más altos de agresión y acoso, especialmente agresión verbal e indirecta. Cuando comparamos los alumnos que utilizan con mayor frecuencia la interiorización con los alumnos que usan más los estilos de afrontamiento de exteriorización y referencia a otros, observamos estas mismas tendencias. Los que utilizan más la interiorización también manifiestan niveles muy superiores en todos los síntomas psicológicos, especialmente depresión, estrés postraumático e hipervigilancia. Estos resultados nos llevan a la conclusión de que la interiorización es la forma menos eficaz a la hora de afrontar problemas, llevando a consecuencias psicológicas de mayor gravedad.

### **Regresión**

Para estudiar el valor predictivo que tienen algunos factores en el desarrollo de síntomas psicológicos, llevamos a cabo análisis de regresión lineal utilizando como variables independientes las siguientes: el neuroticismo, la extraversión, la

exteriorización, la interiorización, la referencia a otros y el nivel de acoso sufrido. Como resultado, la variable que mejor puede predecir el desarrollo de síntomas es el uso de la interiorización, seguida en casi todos los síntomas por el nivel de acoso y, en tercer lugar, el neuroticismo. El papel de la referencia a otros en el caso de algunos síntomas, como la disociación y la regresión, es importante y tiene un efecto magnificador. En otros síntomas, como la hipervigilancia, la somatización, la reexperimentación y sintomatología global tiene un papel menor, aunque significativo. La exteriorización apareció en algunos síntomas con un valor de *beta* negativo. Concretamente, los que emplean este tipo de afrontamiento tienden a tener menos problemas con la evitación, la desesperanza, la regresión y los síntomas en general. Eso sí, es ligeramente predictivo de un mayor nivel de disociación. El análisis con extraversión, probablemente debido a la escasez de sujetos realmente introvertidos, mostró un valor predictivo contradictorio. La extraversión resultó ligeramente predictiva en síntomas de conducta oposicional, activación, desesperanza, somatización y sintomatología global y de estrés postraumático. Por último, la introversión fue predictiva de la disociación.

### **La mediación múltiple**

Para culminar la investigación sobre el impacto de las variables de personalidad sobre la incidencia del acoso y el desarrollo de síntomas psicológicos, se empleó una novedosa técnica: la mediación múltiple. Esta técnica permite cuantificar los efectos indirectos de varias variables en la relación entre una variable independiente y otra dependiente. Respecto a los análisis llevados a cabo en este sentido, estudiamos cómo afecta la variable independiente (el nivel de acoso) causalmente sobre la variable dependiente (el nivel de síntomas psicológicos, globalmente y cada uno por separado). Una vez que se establece una relación significativa entre ellos, analizamos cómo condicionan esta relación cinco mediadores potenciales (neuroticismo, extraversión, exteriorización, interiorización y referencia a otros). Además, utilizamos este mismo método para estudiar cómo media cada mecanismo de afrontamiento en esa misma relación. Se llevaron a cabo los análisis simultáneamente, permitiendo la comparación de las variables independientes para determinar la importancia relativa que tiene cada una.

Examinando los resultados, se confirman de forma progresiva los demás resultados obtenidos hasta ahora. La mediación múltiple permite cuantificar de manera precisa la influencia de cada variable y comparar la magnitud del efecto que tiene sobre la relación

entre el acoso y la sintomatología, acercándonos al perfil del alumno que tiene más probabilidades de sufrir síntomas psicológicos debido al acoso escolar. Con diferencia, la variable que más condiciona esta relación es el uso frecuente de los mecanismos de afrontamiento de interiorización, teniendo el mayor efecto sobre todos los síntomas estudiados aquí. Este estilo de afrontamiento no sólo es ineficaz a la hora de manejar situaciones de acoso, sino que también influye de forma relevante en la aparición del malestar psicológico.

De los cinco mecanismos específicos de este estilo, cuatro son significativamente perjudiciales para la salud mental. El mecanismo con peor pronóstico emocional consiste en el hecho de culparse a uno mismo. En estos casos, la víctima no sólo no hace nada para mejorar su situación, sino que además suma más presión psicológica, pudiendo sobrevenir una sensación de desamparo y vergüenza. A este mecanismo le sigue la reducción de tensión, caracterizada por gritos y lloros, formas inmediatas de aliviar el estrés pero que no conducen a una mejoría a largo plazo, pudiendo complicar aún más las situaciones agresivas. No hacer nada respecto a la situación, sintiéndose incapaz de actuar o ignorando el problema de forma activa también son formas contraproducentes de afrontar el acoso de cara a un mejor bienestar psicológico.

El neuroticismo también es una variable de gran influencia en la aparición de todo tipo de síntomas como resultado del acoso escolar. Se caracteriza por la tendencia a centrarse en las experiencias negativas y por una inestabilidad emocional generalizada. Estos dos atributos llevan al sujeto a reaccionar de forma exagerada, tanto emocionalmente como en su comportamiento. Esto puede empeorar situaciones de acoso y derivar en mayores problemas psicológicos.

La referencia a otros es una forma de afrontar los problemas que también puede ser contraproducente para evitar algunos síntomas psicológicos, aunque con una magnitud muy inferior a la interiorización y el neuroticismo. Los alumnos que recurren más a este tipo de afrontamiento suelen tener más problemas de índole físico, en concreto dificultades en el sueño, somatización, miedos generalizados y cierto nivel de regresión. De los tres mecanismos que componen este estilo, la búsqueda de apoyo espiritual es el más perjudicial. Es una forma muy pasiva de intentar controlar la situación, a veces implicando una dependencia a otros y, si no hay cambios positivos, puede llevar a una sensación de desamparo y frustración. La acción social, además de emplearse con poca

frecuencia, generalmente agrupa a gente con problemas parecidos. Esto puede ser positivo, aunque en ocasiones, los problemas psicológicos de uno, especialmente la depresión, se transmiten con relativa facilidad a los que le rodean. La búsqueda de apoyo profesional, tales como una autoridad en el colegio o un profesional sanitario, tiene resultados más positivos, aunque este impacto no es significativo.

En los análisis de mediación, el papel que juega la introversión en la relación entre el acoso y los síntomas queda más claro. En estos análisis estudiamos los niveles de extraversión de todos los sujetos, sin separar el grupo en dos, con objeto de analizar el efecto global de la introversión sobre la relación entre acoso y síntomas psicológicos y no en sujetos con niveles extremos. Debido a ello, los resultados difieren a los mostrados anteriormente. Los alumnos más introvertidos manifiestan niveles significativamente más altos de conducta oposicional, evitación, activación y sintomatología general. Esta variable tiene un impacto considerablemente inferior a las otras ya comentadas.

Al examinar la última variable de mediación, la exteriorización, se evidencia un efecto menor, y negativo, sobre la relación entre el acoso y la sintomatología. Específicamente, los alumnos que emplean más este estilo de afrontamiento manifiestan niveles más bajos de desesperanza, regresión, miedos y evitación. Cuando analizamos los mecanismos por separado, queda claro que hay algunos más eficaces que otros, pero sólo hay tres realmente significativos: tener esperanza, resolver problemas e invertir en amigos. Todos ellos tienen un efecto negativo en cuanto a la evolución de los síntomas. En teoría, estos tres mecanismos parecen ser eficaces, sin embargo, depende de la forma de emplearlos. Si no se hace nada más para remediar el problema, la esperanza en sí misma puede llevar a desilusión y frustración cuando la situación no mejora. Si las medidas empleadas no son eficaces, los esfuerzos para resolver el problema pueden empeorar la situación de acoso. Cuando existen dificultades sociales, invertir en amigos cercanos e intentar hacer otros nuevos puede generar frustración para víctimas de acoso al no alcanzar su objetivo. Otros mecanismos más productivos, aunque no de forma significativa, consisten en hacer un esfuerzo y tener éxito, el apoyo social y la búsqueda de pertenencia en un grupo, los cuales reflejan un deseo de mejorar su situación vital y social y contar con los amigos para recibir apoyo emocional y social.



## CONCLUSIONES

Para concluir, partiendo de estos resultados, se puede crear un perfil aproximado del adolescente que tiene más probabilidades de desarrollar síntomas psicológicos a raíz del acoso escolar. Se trataría de un individuo con altos niveles de neuroticismo, caracterizado por la inestabilidad emocional. Los neuróticos suelen ser ansiosos, con frecuentes cambios de humor y con reacciones emocionales y de comportamiento exageradas. Las características comportamentales pueden llevar a un empeoramiento de su situación de acoso, mientras su predisposición a la depresión y a la ansiedad les puede exponer todavía más a síntomas psicológicos. Otra característica propia de este perfil es la introversión. Estas personas son más introspectivas, reservadas, con baja tendencia al enfado y algo pesimistas. Aunque no suelen carecer de amigos, sus círculos sociales suelen ser más reducidos. Son más proclives a guardar sus problemas y sentimientos, dificultando la mejoría de la situación de acoso y de los problemas psicológicos. A menudo, las personas manifiestan ambas características de personalidad, lo cual les hace todavía más vulnerables al acoso y sus consecuencias son más pronunciadas.

Las personas que manifiestan este perfil de personalidad pueden paliar las ramificaciones psicológicas de sus experiencias controlando sus respuestas ante la agresión y utilizando unos mecanismos de afrontamiento adecuados. Los alumnos que son neuróticos e introvertidos generalmente utilizan formas de afrontamiento que son contraproducentes y que actúan en detrimento de su bienestar emocional. Para controlar la situación y las secuelas, las personas con más riesgo a padecer problemas psicológicos emplean mecanismos de afrontamiento pasivos, evitando pensar o actuar para remediar el problema. Ocultan su situación a los demás, tanto a los amigos como a los familiares y a las autoridades escolares. Se sienten solos e incapaces de mejorar la situación y, en muchos casos, se rinden ante ella, esperando que se solucione por sí misma. El uso de estos mecanismos de afrontamiento podría exacerbar un ciclo de victimización y problemas psicológicos que podría continuar durante muchos años.

Aparte de este perfil psicológico, el estudio de las variables demográficas lleva a la conclusión de que, por lo general, los españoles varones suelen sufrir más agresión en el colegio, aunque las españolas son las que padecen más secuelas psicológicas. En cuanto al efecto que puede tener la edad de los niños, encontramos que las diferencias son de índole cualitativa. Así, los adolescentes utilizan un tipo de agresión más elaborada y más

específicamente dirigida a ciertos compañeros. Es posible que esta diferencia explique que la incidencia de síntomas psicológicos sea ligeramente superior en niños mayores.

### **Formas de minimizar los daños psicológicos de la agresión escolar**

Los resultados que hemos presentado tienen una aplicación práctica que puede ser llevada a cabo en los centros escolares y dentro del seno familiar. En primer lugar, debería atacarse el problema por la raíz, minimizando los actos de agresión entre compañeros. Para este fin, se podrían llevar a cabo acciones formativas para el profesorado y otros empleados del centro, orientadas a ejercitarles en el reconocimiento de la agresión y a ser más vigilantes frente a ella. Se debería hacer un esfuerzo para interrumpir los actos de agresión y, si corresponde, castigar al agresor, informando tanto a la dirección del centro como a las familias de los implicados. Podrían realizarse campañas de sensibilización del alumnado, para que conozcan el acoso escolar y sus graves consecuencias. Algunos centros han empezado recientemente a practicar programas de mediación entre compañeros, donde otros alumnos, elegidos por el centro y formados para ello, actúan como mediadores entre el agresor y la víctima. Ello facilita la comunicación y es una forma muy activa de afrontar situaciones problemáticas. Al existir más confianza y cercanía entre los alumnos, se favorece el diálogo y la comunicación resulta más fluida. En último lugar, es importante enseñar a los alumnos cuáles son los mecanismos de afrontamiento que conducen a mejorar situaciones de agresión y minimizar las consecuencias psicológicas. Para contribuir a ello, se podría repartir información por escrito a los alumnos y a sus familiares, e incluso realizar talleres en los que se trabaje en el uso de estos mecanismos.

### **Limitaciones de este estudio y sugerencias para el futuro**

La limitación más importante de esta investigación se encuentra en la muestra. Es una muestra amplia, con un número similar de niños y niñas, y con un número relativamente grande de inmigrantes. La mayor dificultad que hemos encontrado es el elevado nivel de absentismo, sea esporádico o crónico. En muchos grupos, el 30% de los alumnos podían faltar cualquier día. Ello impuso restricciones de tiempo para completar los cuestionarios ya que, al no poder contar con su asistencia a diario, debían terminarlos durante el tiempo de duración de una clase. El absentismo crónico conlleva diferencias en la adquisición de habilidades básicas como la lectura, niveles de vocabulario y capacidad de reflexión, dificultando la tarea de rellenar el cuestionario.

Existen numerosos análisis relacionados con este estudio que sería interesante desarrollar en un futuro. Un mejor aislamiento de los estilos de afrontamiento para evitar el solapamiento entre diferentes estilos y estudiarlos de forma más “pura” sería muy informativo. El estudio más detallado de la interacción entre variables demográficas y de personalidad, como es el caso de las diferencias entre niñas con niveles bajos y altos de neuroticismo, también sería interesante para evaluar la importancia de estas variables individualmente.

Por otro lado, la introversión es una variable que merece un estudio más profundo. En esta investigación se ha avanzado en la definición del papel que tiene en el desarrollo de síntomas surgidos tras el acoso. Sin embargo, teniendo en cuenta las incógnitas y el debate en la literatura, sería interesante explorarla aun más.

Por último, podría utilizarse la mediación múltiple para estudiar las diferencias entre grupos basados en variables demográficas, o también para analizar el efecto de los mecanismos de afrontamiento en los diferentes síntomas psicológicos por separado, para entender los beneficios e inconvenientes de cada uno de ellos.

\*Las referencias bibliográficas completas se encuentran en el apartado de referencias dentro de la tesis.

