



School of Social Sciences and Humanities

Department of Social and Organizational Psychology

Roles in school bullying and well-being: An analysis of justice perceptions and  
perceived social support as mediators

D'Jamila Rossana da Silva Garcia

A thesis presented in partial fulfillment of the requirements for the Degree of  
Doctor in Psychology

Specialty in Social Psychology

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Social and Organizational Psychology, ISCTE – Lisbon University Institute, Portugal

[December, 2017]

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## ABSTRACT

Bullying incidents are common in schools and they have negative and widespread effects, namely on the mental and physical health of those who are more directly involved. In this thesis, we aim to expand the literature by exploring the relationship between bullying and well-being and by providing a theoretical framework that can explain this relationship.

We developed three cross-sectional studies with adolescents and young adults in an educational setting. In Study 1 ( $n = 380$ ), we proposed to analyze the relationship between bullying and the well-being of participant roles in bullying (victims, bullies, assistants, reinforcers, defenders and outsiders). Study 2 ( $n = 202$ ) is an extension of Study 1 in which we investigated bullying behaviors retrospectively. In Study 3 ( $n = 565$ ) we explored justice perceptions and perceived social support as mediators in the relationship between bullying and well-being of victims, bully-victims, bullies and non-involved students. We argued that these mediators were indicators of the threat that bullying poses to the need to belong and can help explain the relationship between bullying and well-being.

Our results showed that bullying is negatively associated with well-being in the short and long-term. In the short-term, effects are experienced primarily by victims (and bully-victims). However, in the long-term, both victims and bullies experience the negative effects of bullying. The results also showed that victims and bully-victims experienced deterioration in their justice perceptions and perceived social support. We interpreted these results as empirical support for our argument.

We discussed our results regarding their potential contribution to prevention and intervention efforts, and to the literature that establishes bullying as a serious social problem with multilayered consequences.

**Keywords:** bullying; well-being; social support; justice perceptions; need to belong

**PsycINFO Codes:**

**3000** Social Psychology

**3020** Group & Interpersonal Processes

## RESUMO

Os incidentes de *bullying* são comuns nas escolas e têm efeitos negativos e generalizados, nomeadamente na saúde mental e física daqueles que estão mais diretamente envolvidos. Nesta tese, teve-se como objectivo expandir a literatura explorando a relação entre o *bullying* e o bem-estar e tendo em conta um quadro teórico que pudesse explicar essa relação.

Foram desenvolvidos três estudos transversais com adolescentes e jovens adultos num ambiente educacional. No Estudo 1 ( $n = 380$ ), analisou-se a relação entre o *bullying* e o bem-estar dos papéis no bullying (vítimas, agressores, assistentes, reforçadores, defensores e *outsiders*). O estudo 2 ( $n = 202$ ) é uma extensão do Estudo 1, no qual se investigou os comportamentos de *bullying* retrospectivamente. No Estudo 3 ( $n = 565$ ), explorou-se as percepções da justiça e o suporte social percebido como mediadores na relação entre o *bullying* e o bem-estar das vítimas, agressores-vítimas, agressores e estudantes não-envolvidos. O argumento desta tese é o de que estes mediadores são indicadores da ameaça que o bullying representa para a necessidade de pertença e que podem ajudar a explicar a relação entre o bullying e bem-estar.

Os resultados mostraram que o *bullying* está negativamente associado ao bem-estar a curto e a longo prazo. A curto prazo, os efeitos verificaram-se principalmente para vítimas (e agressores-vítimas). No entanto, a longo prazo, ambos vítimas e os agressores sofrem os efeitos negativos do *bullying*. Os resultados também mostraram que as vítimas e os agressores-vítimas sofrem deterioração das suas percepções de justiça e do suporte social percebido. Estes resultados foram interpretados como suporte empírico para o argumento desta tese.

Os resultados foram discutidos em relação ao seu potencial contributo para os esforços de prevenção e intervenção, e para a literatura que estabelece o *bullying* como um problema social sério com consequências a vários níveis.

**Palavras-chave:** bullying; bem-estar; suporte social; percepções de justiça; necessidade de pertença

### **Códigos PsycINFO:**

**3000** Psicologia Social

**3020** Processos Interpessoais e de Grupo

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## **DEDICATION**

I would like to dedicate this thesis to my grandmother whom I miss greatly, to my parents and to my sweet little boy, my beloved son.

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*I've learned that people will forget what you said, people will forget what you did,  
but people will never forget how you made them feel.*

**- Maya Angelou -**





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## LIST OF ABBREVIATIONS

APA - American Psychological Association

APAV - Associação Portuguesa de Apoio à Vítima

GSHS - Global School-based Student Health Survey

HBSC - Health Behavior in School-Aged Children

SRSQVAC - Special Representative of the Secretary General on Violence against Children

UNAIDS - Joint United Nations Programme on HIV/AIDS

UNESCO - United Nations Educational, Scientific and Cultural Organization

UNICEF - United Nations Children's Fund

WHO - World Health Organization

## GENERAL INTRODUCTION

At present, many children and adolescents worldwide have access to education. However, not all of them are able to learn in an environment that stimulates them and that is safe (SRSGVAC, 2012). “School violence and bullying occurs in all countries and affects many children and young people.” (p.14) (UNESCO, 2017). In fact, it is estimated that annually 246 million students are involved in school violence and bullying incidents (UNESCO, 2011); the most frequent type of violence that takes place at school (UNESCO, 2017).

School bullying is a social and public health problem and it affects adolescents regardless of their culture or geographical location (Craig, et al., 2009; Swearer, Espelage & Napolitano, 2009). It hinders the right to education and to health (UNESCO, 2017) and has an impact on individuals, on their peer groups and communities, and also on countries as a whole (Nansel, Craig & Overpeck, 2004). The increasing recognition of this phenomenon by civil society entities has been visible, in particular amongst the entities responsible for the protection of victims, such as children and young people (e.g. APAV, UNICEF). Although it may be difficult to be precise regarding the prevalence of bullying worldwide (since it varies depending on the country and the study) UNESCO (2017) reports that estimates range between 10% and 65%. According to SRSGVAC (2016), 2/3 of 100,000 respondents from 18 countries were victims of bullying. For its part, the UNICEF (2014) reports that "a significant proportion (31 per cent) of teens in Europe and North America admitted to having bullied others"<sup>1</sup> (p.120). In Portugal, the phenomenon has also received greater social attention. According to APAV (2013), 87% of respondents report that they know or have already heard about bullying and 97% of them reported that they know or have already heard about the concept.

From within the field of science and research, APA (2004) issued a resolution in the last decade summarizing the key aspects of the research, for example: the specificity of bullying as opposed to other types of aggressive behavior among peers; the universality of bullying, since it does not discriminate according to social status, race, etc.; the fact that there is no single cause but several factors that may contribute to put a child at risk of becoming a victim. In addition, APA (2004) encourages research on bullying and anti-bullying prevention and intervention.

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<sup>1</sup> Data from HBSC (Health Behavior in School-Aged Children) and GSHS (Global School-based Student Health Survey) studies.

Olweus (1973, 1978; for review, 1993) was a pioneer in this area and described bullying as repeated aggressive behavior with intention to cause physical or psychological harm, involving an imbalance of power between the bully and the victim. Salmivalli, Lagerspetz, Björkqvist, Kaukiainen and Österman (1996) later proposed the existence of four more roles (assistant, reinforcer, defender and outsider), thus interpreting bullying as a group phenomenon that goes beyond the victim-bully dyad. By considering *the participant roles in bullying approach* (Salmivalli et al., 1996; Salmivalli, Lappalainen, & Lagerspetz, 1998) it is possible to study the more complex dynamics that are established between the roles and develop a more comprehensive perception of what occurs in bullying incidents. There are few studies that have considered all participant roles simultaneously (e.g. Quinn, Fitzpatrick, Bussey, Hides, & Chan, 2016; Tani, Greenman, Schneider, Barry, & Fregoso, 2003). Namely, Tani and colleagues (2003) who explored the personality characteristics (friendliness, emotional instability, intellectual openness, energy, and conscientiousness) of all participant roles in bullying. The authors concluded that the way students behave in bullying incidents might be influenced by their personality characteristics.

At first, research in this area, in an effort to understand the nature and extent of the phenomenon, was essentially descriptive (e.g. identifying prevalence data of these behaviors; Smith, Morita, Junger-Tas, Olweus, Catalano & Slee, 1999). This research reported bullying as present in a number of classrooms in a number of different schools. The interpretation of bullying as a ‘common occurrence’ by society may have contributed to the belief that it was simply ‘part of growing up’ or that ‘boys will be boys’. On the contrary, research has consistently shown that bullying is associated with serious physical and mental health problems (e.g. Alikasifoglu, Erginoz, Ercan, Uysal & Albayrak-Kaymak, 2007; Bogart et al., 2014; Due et al., 2005; Nansel et al., 2001; Nansel et al., 2004; Wilkins-Shurmer et al., 2003; UNESCO, 2017).

The growing interest in the relationship between these behaviors and the functioning of individuals was fundamentally translated into the study of the psychopathology associated with bullying, as an indicator of its negative consequences (e.g. anxiety, depression; Craig, 1998; Rigby & Slee, 1993). However, the experience of being bullied is also negatively associated with positive characteristics or indicators such as resilience (namely, school connectedness and hope) or well-being (e.g. emotional well-being; UNESCO, 2017), and not only with mental health outcomes (Hawker & Boulton, 2000; You, Furlong, Felix, Sharkey, & Tanigawa, 2008; Volk, Craig, Boyce, & King, 2006). Furthermore, according to positive psychology paradigms, and contrary to traditional mental health perspectives, optimal development and

mental health exceed the absence of disease, including the individual's ability to self-actualize and develop positively (e.g. Keyes, 2007). Thus, the almost predominant focus on psychopathology indicators may have concealed the real impact of bullying because its negative effects may not necessarily manifest as a psychological illness, but still affect the well-being of victims (Martin & Huebner, 2007). Moreover, the effects of bullying on the health and well-being of victims may not be limited to the age at which they are being bullied, but may also continue into their adulthood (Due et al., 2005; UNESCO, 2017). In this thesis, we intend to expand this line of research and study the short and long-term effects of bullying on the well-being of all participant roles in bullying. We will consider aspects of individual functioning as well as positive indicators that have been studied more sparsely, such as subjective well-being.

School bullying can indeed acquire particular characteristics, given the role that school and the peer group have in the well-being of adolescents (Balluerka et al., 2016; Dekovic, Engels, Shirai, De Kort, & Anker, 2002). However, only a few studies tried to explain the relationship between bullying and well-being. In this thesis we intended to explore how this relationship is established and also to include constructs of social psychology to explain it. In fact, the potential contribution of social psychology has been somewhat neglected in bullying research. While an aggressive behavior and a potential factor of social exclusion (Due et al., 2005), bullying can be a threat to students' *need to belong* (Baumeister & Leary, 1995; Cassidy, 2009; Feigenberg, King, Barr, & Selman, 2008; Hawker & Boulton, 2000; Juvonen & Gross, 2005). According to previous research "social exclusion may result in a lack of social participation and attachment and delayed and possibly weakened development of social competencies, which may harm future social and work prospects." (p.130) (Due et al., 2005). In this sense, we propose the *need to belong* as an explanatory argument of the relationship between bullying and well-being. Specifically, that being a victim or bully-victim has a negative impact on well-being and that may be due to the fact that their *need to belong* is threatened by bullying. Those who feel excluded from the peer group (e.g. victims) tend to perceive that they are less supported by others and to perceive them as being less just (i.e. they feel that they are not respected within the group), potentially resulting in negative consequences for their well-being (Hale, Hannum, & Espelage, 2005; Tyler, 1994; Tyler, DeGoey, & Smith, 1996; Tyler & Lind, 1992). The association between perceived social support and justice perceptions with belonging is established in the literature (Allen, Kern, Vella-Brodrick, Hattie, & Waters, 2016; Umlauft, Schröpper & Dalbert, 2009), therefore, we included them as sociocognitive indicators of the *need to belong*. In particular, we propose that the threat that being bullied poses to the *need to belong* may be reflected on how much support victims and bully-victims perceive



from others and how just they perceive them to be, and that is likely to have an impact on the well-being of both victims and bully-victims.

In sum, in an attempt to contribute to the research gaps that were identified, this thesis aims to meet the following objectives: a) explore the relationship between participant roles in bullying and well-being<sup>2</sup>, considering the well-being of adolescents who are experiencing bullying incidents and young adults who have experienced them in school; and (b) to explore the mediating role of the *need to belong* (measured through the sociocognitive variables of perceived social support and justice perceptions) in the relationship between bullying and well-being. In this sense, we conducted two studies that address the first general objective and a third study that addresses the second general objective. All three studies will be described in the context of the research problems and specific objectives.

In the first two studies, we chose to study bullying according to the *participant roles in bullying approach*. The purpose was to explore the group dimension of bullying and to compare the well-being of the different participant roles, in order to verify if bullying affects them in a different way. The inclusion of all roles allows for the identification of which are at most risk and which are more ‘protected’, which is expected to have implications for prevention and intervention.

**Study 1** aims to analyze the relationship between bullying and well-being simultaneously considering all participant roles in bullying. Similarly to Tani and colleagues (2003), we aim to explore differences between these roles. However, we specifically aim to address their subjective well-being, self-esteem and school distress. Previous literature showed that it would be pertinent to explore potential differences between previous participant roles regarding their present well-being, that is, to explore the long-term relationship between these variables. In fact, studies tend to approach the impact of bullying in the short-term and are mostly cross-sectional in nature, to the detriment of longitudinal studies. Specifically in the last decade, retrospective studies have been developed aiming to study (the impact of) bullying in the long-term (e.g. Cooper & Nickerson, 2013; Luk et al., 2016; Rosen, Underwood, Gentsch, Rahdar & Wharton, 2012). This study design allows participants to revisit childhood and adolescent experiences with the aim of better understanding how different previous participant roles in

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<sup>2</sup> Although we did not conduct experimental research, in our studies this relationship was explored considering that there is an impact of bullying on the well-being of those involved in it. For this reason, there will be references to the impact and consequences of bullying throughout the present thesis. This decision was based on previous findings that suggest this causality (e.g. Houbre, Tarquinio, Thuillier, & Hergott, 2006) however, we were cautious when interpreting our results precisely because our studies are cross-sectional.

bullying are related to their present well-being. In **Study 2**, we propose to study the relationship between bullying and well-being from a retrospective perspective, i.e., to analyze the relationship between the memory of involvement in bullying incidents and its association with well-being on adult life. In both studies, we include subjective well-being, self-esteem (that has been studied extensively in the literature) and school/university distress (which is included while potentially related to experiences of bullying in educational settings) as well-being indicators. In these two studies, we intend to answer to a conceptual gap, thus reinforcing the contribution of positive psychology through focusing on the positive dimensions of well-being. **Study 2**, in particular, also aims to address a methodological gap (i.e. the importance of studies addressing the long-term effects of bullying).

Finally, **Study 3** addresses the relationship between bullying and the well-being of adolescents and explores the argument that bullying is a threat to the *need to belong*, including perceived social support and justice perceptions as its indicators. Similarly to **Study 1** and **Study 2**, subjective well-being and self-esteem are also included as indicators of well-being. However, in **Study 3** only the bullying roles initially proposed by Olweus are included (1993). The literature describes individuals who are simultaneously bullies and victims (bully-victims) as those who are most at risk. For this reason, and following the results of the two previous studies, it was decided to adopt a roles' classification that included this role. Therefore, this third study aims to reconcile two conceptual gaps in research; through the inclusion of positive indicators of well-being and social psychology constructs, as an explanation of the impact of bullying on well-being.

## **PART I – BULLYING AND WELL-BEING**

### ***CHAPTER 1 – THE BULLYING PHENOMENON***

#### **1. CONCEPTUALIZATION OF BULLYING EXPERIENCES**

- **Nature and definition of the phenomenon**

Bullying is an aggressive behaviour perpetrated repeatedly, over a period of time, with the intention to harm others either physically or psychologically, or both. It involves an imbalance of power between a stronger individual, the bully, and a weaker one, the victim (Olweus, 1993; Rigby, 1996; Smith & Sharp, 1994). This definition is based on how Olweus (1986; 1991; 1993) has defined bullying in his pioneering work, and is to our best knowledge the most commonly used definition. Repetition and power are key aspects for bullying; through recurring attacks bullies become more powerful and victims become more helpless, which in turn places them at greater risk of victimization (Anderson, 2005). Bullying can involve children or adults and it can happen in different contexts, however, research has predominantly addressed school bullying (Monks et al., 2009; Smith, 2013). According to Smith (2013) “although usually considered in the context of pupil-pupil relationships, both teacher-pupil and pupil-teacher bullying may occur.” (p. 81). The incidents of aggression that take place in the context of peer relations have been referred to in different ways, namely: harassment, victimization or bullying. Although there may be subtle differences between these terms, they all reference the three important aspects mentioned above: intention to harm, repetition over time and imbalance of power (Eisenberg & Aalsma, 2005; Olweus, 1999). This conceptualization excludes other disruptive behaviours such as fights between students with similar physical or psychological strength (Olweus, 1993).

Bullying “can occur inside and outside the classroom, around schools, on the way to and from school, as well as online.” (p. 19) (UNESCO, 2017), and it tends to happen where the supervision from adults such as teachers and school staff is less frequent (e.g. changing rooms, toilets) (Roman & Murillo, 2011; UNESCO, 2017). For the sake of clarity and consistency the terms bullying and victimization will be used in this thesis to refer to cases of aggression among peers, that are characterized by the three important aspects described previously, and that take or took place in school.

Espelage, Mebane and Swearer (2004) have concluded that bullying has a complex nature and argue that there are different theories and hypothesis that can contribute to explain the processes involved. This complexity is also visible on its assessment since different definitions have been used which in turn led to different rates being reported (Cornell, Sheras, & Cole, 2006). And this alone also demonstrates the difficulty of finding a definition that is universally adopted (Anderson, 2005). It is, however, rather consensual that bullying has a social nature (Anderson, 2005; Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Salmivalli et al., 1996) - it implicates the existence of a social relationship (Craig & Pepler, 1995) and it is a relationship problem (Pepler et al., 2006; Pepler, Jiang, Craig, & Connolly, 2008). It is a mean to achieve a social position and to control others and so it has been conceptualized as proactive aggression.

Proactive aggression includes aggressive actions that are carried out to achieve certain objectives and that may not be an angry reaction to something that has happened (Dodge, 1991; Price & Dodge, 1989; Espelage et al., 2004). The aggression can be either direct or indirect (Olweus, 1993). Direct bullying is a rather overt attack through physical or verbal aggression (Bjorkqvist et al., 1982; Olweus, 1993). Indirect bullying is a more covert action through which others are isolated and excluded from a group, which is less visible (e.g. spreading rumours; Bjorkqvist, 1994) (Olweus, 1993).

Along with the technological development of the last decades we have witnessed the emergence of a new type of bullying that occurs online, cyberbullying. It can involve additional suffering since victims can be hurt at anytime and before a greater audience, and bullies have the possibility to act anonymously (e.g. “may include spreading rumours, posting false information, hurtful messages, embarrassing comments or photos, or excluding someone from online networks or other communications”; p.15) (UNESCO, 2017). According to Livingstone, Haddon, Görzig and Ólafsson (2011) “it is not that bullying takes place either online or offline but that instead bullying migrates from one to the other, making it hard for the victim to escape.” (p.24). In fact, there is a great overlap between both since those who are victims online are also likely to be victims of traditional bullying, which is a particular ansiogenic factor (Livingstone et al., 2011, Schneider, O’Donnell, Stueve, & Coulter, 2012; UNESCO, 2017). Finally, bullying behaviors that are specifically based on group characteristics such as religion, sexual orientation, race, disability, and that can also include sexual harassment, are designated as bias bullying, identity-based bullying or prejudice bullying (Smith, 2013).

Only one person or more persons can perpetrate bullying; and similarly it can be addressed to only one or more victims. Both units of analysis (the individual and the group) can influence this type of behavior (Olweus, 1993). In order to obtain a better understanding about this

phenomenon we must first look to what characterizes both victims and bullies. All children and adolescents can potentially be victims however, those who are more vulnerable due to personal characteristics such as ethnicity and weight, or life conditions such as social status, may be in greater risk (Devries et al., 2014; SRSGVAC, 2016; UNESCO, 2017). Victims have been associated with feeling helpless and experiencing trouble in defending themselves against the aggression (Olweus, 1993). There are two types of victims (Olweus, 1978). A group of victims has been characterized as lonely, not aggressive, insecure, anxious, quiet, with negative self-perception and poor self-esteem. This stance gives indication to the bully that they will not strike back when they are bullied (Olweus, 1978; 1993). They have been classified as passive or submissive victims (Olweus, 1973; 1978) and their characteristics may 'contribute' to their victimization (Olweus, 1993). Nevertheless, being repeatedly bullied must further contribute to damage their personality. The majority of victims are passive; however, there is a smaller group that has been classified as 'the provocative victims' (Olweus, 1978). These victims are both aggressive and anxious, have difficulty to concentrate, tend to be annoying and are considered hyperactive. Since they are provocative they tend to disturb their classmates who in turn respond negatively (Olweus, 1978; 1993). Provocative (or aggressive) victims are also known as bully-victims and assume simultaneously the role of victim and bully (Solberg & Olweus, 2003). The problems that arise in classes with passive or bully-victims are therefore partly distinct (Olweus, 1978).

On the other hand, bullies may be manifesting their own problems through their bullying behavior, such as being angry or feeling frustrated (UNESCO, 2014, 2017). They are characterized by being aggressive in general, not only towards their peers but also with their parents and teachers (Olweus, 1993). They are impulsive, dominant, lack empathy towards victims, resort to aggression more often than other students and have also a more positive attitude towards it (Olweus, 1978, 1993). They also perceive themselves positively (Bjorkqvist et al. 1982; Lagerspetz, Björkqvist, Berts, & King, 1982; Olweus, 1978, 1993) and tend to not suffer from anxiety, insecurity (Olweus, 1981; 1984) or low self-esteem as victims do (Olweus, 1993). Unlike victims, bullies also tend to be popular, supported and liked by their friends (Olweus, 1973, 1978, 1993; Bjorkqvist et al. 1982; Lagerspetz et al., 1982; Pulkkinen & Tremblay, 1992). It has been argued that there are at least three possible reasons why bullies harass their peers: their need to control and dominate others; the satisfaction they take in hurting others given their animosity towards what surrounds them; and finally, the advantages (e.g. they can force others to give them money) and prestige they can achieve with bullying others (Bandura, 1973; Olweus, 1993; Patterson, Littman, & Bricker, 1967). There are also other

students that take part in bullying but do not start the aggression. These students have been classified by Olweus (1973, 1978, 1993) as passive bullies, followers or henchmen; and contrary to bullies may include students who are anxious and insecure.

Initially research focused more on the characterization of victims, bullies and bully-victims (Olweus, 1993). Those who are not directly involved in bullying have been usually referred in the literature as non-involved students (Solberg & Olweus, 2003) or bystanders (Oh & Hazler, 2009; Thornberg et al., 2012). However, bullying is a group phenomenon and therefore it also important to consider the mechanisms that may come into play when several students are involved in bullying (Olweus, 1973; 1978; 1993). This approach makes it easier to understand its persistence, what drives students to bully, why victims are not supported and its impact on their adjustment (Salmivalli, 2010). In addition to the traditional roles of victim (the target of aggression) and bully (that initiates the aggression) that were extensively studied by Olweus (1993), there are the other students who witness bullying and also influence the situation, including the followers as mentioned above (Salmivalli, 1999; Salmivalli et al., 1996).

In this way, it has been proposed the existence of four additional roles that take part in the process: the bully's assistant (that helps and supports the bully), the bully's reinforcer (that gives positive feedback to the bully), the defender of the victim (that takes sides with the victim) and the outsider (that knows that someone is being bullied but does not intervene) (Salmivalli et al., 1996). Bullies and their followers (bully's reinforcer and/or assistant) share many characteristics (Goossens, Olthof & Dekker, 2006). Outsiders have also been referred in the literature as passive bystanders (Gini, Albiero, Benelli, & Altoe, 2008; Menesini, Codecasa, Benelli, & Cowie, 2003).

These six roles are distinct from each other and are determined by different emotions, attitudes and motivations (Salmivalli et al, 1996; Salmivalli et al., 1998). The categorization of the behaviors adopted in bullying incidents according to these six roles was denominated as *participant roles in bullying approach* (Salmivalli et al, 1996). Participant roles in bullying have been identified in studies from different countries and predict students' behavior in the future incidents (Goossens et al., 2006). The most common roles are reinforcer, defender and outsider (Salmivalli et al, 1996; 1998). These roles were conceptualized as mutually exclusive however, it is also possible that some students assume secondary roles (e.g. bully-victims) (Gini et al., 2008a; Gini, Pozzoli, Borghi, & Franzoni, 2008; Salmivalli, 2010; Salmivalli et al., 1996; Salmivalli et al., 1998). Students are aware of their own role. However, due to social desirability, they have difficulty to admit that they are bullies or victims (Salmivalli et al.,

1996). Indeed it may be hard for some students to admit that they are targets of systematic harassment and that they have little regard for themselves (Salmivalli et al., 1999). Many of the students who are highly bullied do not necessarily admit that they are victims at all (Salmivalli, 2010).

Children and adolescents form groups according to what they have in common (characteristics and behaviors) (see *homophily hypothesis* for review, Berndt, 1982; Cohen, 1977; Kandel, 1978). It is therefore not surprising that students who have the same behaviour in bullying incidents, and assume similar or complementary roles, tend to associate into subgroups and form cliques with each other (Espelage, Holt, & Henkel, 2003; Gini, 2006; Salmivalli, 1999, 2010; Salmivalli, Huttunen, & Lagerspetz, 1997; Salmivalli et al., 1998). As such individual behaviour is strongly associated with how the members of the clique behave in bullying incidents (Salmivalli et al., 1998). In other words, a student's behavior in bullying is also largely determined by how his/her peers behave in those situations (Salmivalli et al., 1997; Salmivalli et al., 1998). A student who harms others joins those who do the same, or assist or reinforce bullying behavior. Bullies also tend to associate based on the frequency that they bully others, which in turn increases their self-reported bullying behavior (Espelage et al., 2003). Pro-bullying roles belong to larger peer networks than prosocial roles (defenders and outsiders) and victims (Salmivalli et al., 1997). However, the extended size of a subgroup does not necessarily correspond to reciprocal friendship among its members (Salmivalli et al., 1997). Defenders form cliques between them, and may encourage prosocial behaviors and serve as positive role models for each other (Salmivalli et al., 1997; Salmivalli, 2010). They also form alliances with outsiders and victims (Salmivalli et al., 1997).

The roles tend to remain stable, unless there are changes in the class (and even so, many students would have to leave the class in order to that to have an impact) (Salmivalli, 2010; Salmivalli et al., 1998). In fact, both bully and victim are likely to remain 'trapped' in their roles for years (Olweus, 1977,1978) since the incidents usually occur in groups (i.e. classes) that differ from other social groups in one important aspect: the membership is involuntary, which means that the victims cannot easily escape (Bjorkqvist et al., 1982; Salmivalli, 2010; Salmivalli et al., 1996). It is quite difficult for them to overcome their situation and this draws attention to the need to take adequate measures against bullying (Olweus, 1993). Therefore, being a victim may not only last for one school year but also in many cases lasts for many years (Salmivalli et al., 1998). The group also determines the expectations regarding a given member and, at the same time, these expectations define the role that he/she will assume. This is another reason why changing roles is so difficult, because peers do not easily accept change and

influence one's perception that is possible to have a different behaviour (Espelage et al., 2003; Gini, 2006; Salmivalli, 1999, 2010; Salmivalli et al., 1997).

The *ecological model* (see for review, Bronfenbrenner, 1979) has been used to understand bullying and also to develop effective ways to prevent and combat it (Espelage et al., 2004). It postulates that there are four systems that are interconnected and that the individual takes a part on them. These systems are: microsystem, mesosystem, exosystem, and macrosystem. The individual has a central and active position in the interaction between these systems (Bronfenbrenner, 1979). The interpersonal relationships within one system such as the classroom (for example, the way a student interacts with his/her colleagues and the way they react to bullying) fall within the microsystem (Espelage et al., 2004). The role that a student adopts in bullying is also included in the microsystem. Each role socializes with other students in a social context and depending on this socialization bullying can increase or decrease (Espelage et al., 2004). The connection and compatibility between two or more systems falls within the mesosystem (e.g. agreement between parents and teachers in what concerns bullying). The impact of one system on another system falls within the exosystem and the impact of culture falls within the macrosystem (Espelage et al., 2004).

Individual behavior is conditioned by personal characteristics (e.g. sex), by the family environment, the peer group, the school (e.g. school climate), the community and the culture. Bullying arises and persists due to the social ecology in which it takes place. All these systems can promote or condemn bullying behaviors, are interconnected and influence the individual (Bronfenbrenner, 1979; Espelage et al., 2004). Therefore, in order to understand bullying it is necessary not only to attend to personal characteristics but also to the systems that surround students. Bullying is a product of the interactions that take place between individuals and the systems in which they live (Espelage et al., 2004).

- **Bullying predictors and types of bullying: An analysis of individual differences (sex, age and grade)**

Olweus (1991, 1993) found that were mainly boys that bullied other boys and girls. This finding suggested that boys were more involved in bullying than girls, as both as victims and bullies (Olweus, 1993; Rigby & Slee, 1991). These results were later confirmed by subsequent studies that found that boys tend to assume more both the roles of victim and bully than girls (Carvalhosa, Lima & Matos, 2001; Matos & Carvalhosa, 2001; Nansel et al., 2001; Owens et al., 2005; Solberg & Olweus, 2003). The same trend was found for bully-victims (Carvalhosa et al., 2001; Scheithauer, Hayer, Petermann & Jugert, 2006; Solberg & Olweus, 2003; Veenstra



et al., 2005). There is, however, evidence that show that being a victim was independent of sex but that it is more likely to be a victim in a class with more boys (Scheithauer et al., 2006). The usual interpretation of these dichotomized results was that girls were not as aggressive when interacting with each other (Crick & Grotpeter, 1995; Espelage et al., 2004). In fact, for a long time it was consensual that boys were more aggressive than girls and studies have supported this belief (Coie & Dodge, 1998, Espelage et al., 2004; Olweus, 1993). Craig and colleagues compared bullying rates from 40 countries and found that in all countries boys were more likely to be bullies and girls were more likely to be victims in 29 countries (Craig et al., 2009).

This consensus has, however, raised some doubts since boys were studied more often than girls and that usually only physical bullying was considered (Crick & Rose, 2001; Espelage et al., 2004). For that reason, it has been questioned that if other types of bullying (e.g. indirect bullying) were included in the studies the results would be different (Crick & Grotpeter, 1995). This has been argued due to the fact that direct bullying (i.e. physical and verbal bullying) has been described as being more characteristic of boys and indirect bullying (e.g. spreading rumours) as more characteristic of girls (e.g. Baldry & Farrington, 1999; Bjorkqvist et al., 1992<sup>3</sup>; Espelage et al., 2004; Olweus, 1993; UNICEF, 2014; Wolke et al., 2000). In fact, each type of bullying may have a differentiated value for boys and girls (Scheithauer et al., 2006). Scheithauer and colleagues (2006) found that boys were more frequently victims of physical bullying than girls. Boys have been described as more interested in dominance and instrumentality and girls as more interested in relationships. Hence boys are more likely to resort to behaviors (physical bullying) that can harm the dominance status of others and girls are more likely to resort to behaviors that harm relationships or exclude others (indirect bullying) (Espelage et al., 2004; Scheithauer et al., 2006). In what concerns verbal bullying, Lagerspetz, Bjorkqvist and Feltonen (1988) argue that unlike to what was thought up to that point verbal bullying was not more common in girls' than boys' relationships. In fact, they found that it was present in the interactions of girls just as in the interactions of boys<sup>4</sup> (Lagerspetz et al., 1988). In a more recent study results have not proved to be conclusive regarding verbal bullying (Knight, Guthrie, Page & Fabes, 2002). In spite of this, Olweus (1993) also found that boys were bullied indirectly almost as much as girls were; and in another more recent study researchers did not find sex differences regarding indirect bullying (Prinstein,

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<sup>3</sup> In their article Bjorkqvist and colleagues (1992) use the term aggression.

<sup>4</sup> Only 11 years old participated in the study.

Boergers, & Vernber, 2001). According to Bjorkvist and colleagues (1992) girls may resort to indirect aggression earlier than boys due to developmental reasons however, as they grow, boys start to use more indirect forms of aggression. Still, the authors do not rule out the hypothesis that even in adulthood women resort more to indirect aggression than men (Bjorkvist et al., 1992). In this sense, one should be careful when interpreting gender differences in this field since these differences are not always consistent (Espelage et al., 2004; UNICEF, 2014). It has also been argued that boys are not necessarily more aggressive than girls and that this might depend on contextual factors (e.g. age of the child or adolescent) (Espelage et al., 2004). In fact, both boys and girls may be involved in physical violence (i.e. direct bullying) and psychological violence (i.e. indirect bullying) and for that reason we should not “not to overlook physical violence among girls and psychological violence among boys when monitoring the scope and prevalence of school violence and bullying.” (p. 18) (UNESCO, 2017). And since not all boys and girls behave exactly according to those trends researchers should avoid this dichotomous perspective of bullying behavior (Espelage et al., 2004).

In what concerns participants roles in bullying, boys have been described as being more likely to assume pro-bullying roles (bully, assistant and reinforcer), whereas girls are more likely to assume the role of defender of the victim or outsider (Salmivalli et al., 1996). Girls depending on situational and contextual requirements can also assume the role of bully however, as situations change, switch to another role. In fact, the current social situation and their closest peers predict more accurately girls' behaviour than the stability of their own behaviour (Salmivalli et al., 1998). In contrast, boys tend to have more stable behaviors (Salmivalli, Kaukiainen, Kaistaniemi, & Lagerspetz, 1999). One possible explanation for this may be that the social roles assumed by girls tend to be more determined by situational and social factors, and that the roles assumed by boys tend to be determined largely by their psychological dispositions (e.g. self-esteem) (Salmivalli et al. 1999; Salmivalli & Voeten, 2004). In other words, in the case of girls bullying appears to be more associated with the concrete situation and with the existing social relationships than with an aggressive, dominant and anti-social pattern. In the case of boys, bullying is more associated with power, dominance over others and to show themselves to others (Salmivalli et al., 1998).

Researchers have also found age differences regarding bullying (Rigby & Slee, 1991). It has been quite consensual that being bullied tends to decrease with age (generally between 6 and 16 years, i.e., primary and secondary school) (e.g. Brown, Birch, & Kancherla, 2005; Eslea & Rees, 2001; Olweus, 1993, 1994; O'Moore, Kirkham & Smith, 1997; Peskin, Tortolero, & Markham, 2006; Peterson & Ray, 2006; Rigby & Slee, 1991; Smith, Madsen, & Moody, 1999;

Whitney & Smith, 1993; Zaborskis, Cirtautiene, & Zemaitiene, 2005)<sup>5</sup>. As children grow older and transition to higher grades the number of victims decreases (Carvalhosa et al., 2001; Olweus, 1991, 1993; Salmivalli et al., 1998; Scheithauer et al., 2006).

Smith and colleagues (1999) explored four hypotheses to explain why this happens: younger students are easier targets since older students, and more likely to bully, outnumber them (hypothesis 1); younger students have not yet understood that bullying is not an acceptable behaviour, however, they only found relevant results regarding this hypothesis after age 15 (hypothesis 2); younger students are not yet assertive enough and lack the adequate social skills to properly address and stop bullying (hypothesis 3); and finally, younger students may have a different understanding of what has been established that bullying is and therefore perceive/report it more often than it 'really' takes place (hypothesis 4). According to the authors, all hypotheses contributed to explain why being bullied tends to decrease with age. However, hypothesis 1 and 3 contributed the most when compared to the other two. On the other hand, with regard to bullying others results do not seem to be as clear. Evidence show that self-reported bullying may decrease with age but not substantially nor in a stable manner (e.g. Olweus, 1993; Whitney & Smith, 1993). Previous studies show that researchers have found a slight decrease in bullying others particularly in girls or around the transition from primary to secondary school (e.g. Olweus, 1993; Whitney & Smith, 1993). In other cases, researchers have actually found an increase in bullying with age, often following and/or followed by a decrease period (e.g. Bentley & Li, 1995; Boulton & Underwood, 1992; Olweus, 1992, 1993; O'Moore et al., 1997; Rigby, 1996; Whitney & Smith, 1993). Nevertheless, after age 15 self-reported bullying seems indeed to start decreasing (O'Moore, 1997; Rigby, 1996; Whitney & Smith, 1993). This might be related to the fact that bullies tend not to bully as much at this age or more likely with the fact that most students leave school around this time (Smith et al., 1999).

In view of this it makes sense that it has been found that younger students tend to assume more the roles of victim and bully-victim (Carvalhosa et al., 2001; Fitzpatrick, Dulin, & Piko,

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<sup>5</sup> There are however, some exceptions to this tendency (e.g. Almeida, 1999; LaFontaine, 1991; MacLeod & Morris, 1996; Perry, Kusel & Perry, 1988; Rigby, 1996). In the case of Portugal, although with very similar characteristics to other international studies results did not confirmed this tendency. Presumably due to the retention system in place at the time in Portugal. Therefore, in this particular case, grade differences did not correspond exactly to age differences (Almeida, 1999; Smith et al., 1999).

2007; Solberg & Olweus, 2003). Even so, students who assume the role of bully-victim are usually older than those who are only victims (Stein, Dukes, & Warren, 2007). In contrast, older students and students from higher grades are more likely to bully (Olweus, 1993), particularly boys (Solberg & Olweus, 2003). In this sense, younger, powerless and from lower grades students can be at greater risk of being bullied by older students (Eslea & Rees, 2001; Matos & Carvalhosa, 2001; Olweus, 1993). As students transition to middle school new relationships arise and bullying allows them to establish a dominant position in the new groups (Espelage et al., 2004; see for review the *dominance theory*, Pellegrini, 2002; Pellegrini & Long, 2002; Smith, Madsen, & Moody, 1999). Also, when transitioning to secondary school, attempting to be independent from their parents, adolescents become more attracted to their aggressive peers and to who challenges authority (Espelage et al., 2004; see for review *attraction theory*, Bukowski et al., 2000; Moffitt, 1993). There is evidence that bullying others rates are at their highest around grade 9, as the school transition occurs, and that by high school they are decreasing (Brown, Birch, & Kancherla, 2005; Peskin, Tortolero, & Markham, 2006; Zaborskis, Cirtautiene, & Zemaitiene, 2005). However, Nansel and colleagues (2001) found that bullying was more frequent in grades 6-8 than in grades 9-10. Similarly, Scheithauer and colleagues (2006) reported an increase in bullying in grades 6-9 and a decrease in grade 10. They also found higher bullying rates in middle school and higher victimization rates among younger students. Fitzpatrick and colleagues (2007) found that students in elementary and middle school tend to bully more than high school students.

In regard to type of bullying, students in higher grades tend to be less physically aggressive than students in lower grades (Olweus, 1993). Previous studies have found that in the early years and in middle school bullying is mostly physical, however; older students resort mainly to verbal and indirect bullying (Bjorkqvist et al., 1992<sup>6</sup>; Rivers & Smith, 1994; Scheithauer et al., 2006). It is therefore well established that as students grow there is a decrease in physical bullying and an increase in verbal and indirect bullying (e.g. Ahmad & Smith, 1994, Archer & Cote, 2005; Coie & Dodge, 1998; Craig, 1998; Espelage, Meban, & Swearer, 2004). In fact, verbal bullying is likely to remain highly pervasive during high school. In addition, there is also evidence that cyberbullying tends to increase as students grow older (UNESCO, 2017).

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<sup>6</sup> In their article Bjorkqvist and colleagues (1992) use the term aggression.

- **History of bullying prevalence: trends worldwide and in Portugal across time**

Initially bullying was mainly studied in Scandinavian countries (since the 1970s) however, over time (1980-1990s) researchers from other countries in North America, such as USA and Canada, Australia or, Japan also became interested in this topic (Olweus, 1993; Smith et al., 1999). To date bullying has also been studied in many other countries (including other countries in Europe, in Africa, in Asia; and in South America) (e.g. Cluver, Bowes, & Gardner, 2010; Lai, Ye, & Chang, 2008; Malta et al., 2010; Menesini, Modena & Tani, 2009; Minton & O'Moore, 2008; Owusu, Hart, Oliver, & Kang, 2011). And there is even data available from cross-national studies (e.g. Correia, Kamble, & Dalbert, 2009; Due et al., 2009; Menesini et al., 2003; Ortega et al., 2012; Sentenac et al., 2011; Smith, et al., 1999; Kanetsuna, Smith, & Morita, 2006). It is estimated that “worldwide, close to 130 million (slightly more than 1 in 3) students between the ages of 13 and 15 experience bullying.” (p. 7) (UNICEF, 2017).

The prevalence of bullying has been studied in different countries (Greeff & Grobler, 2008) and several studies have found that it has a rather high prevalence (e.g. Cook, Williams, Guerra, & Kim, 2010). However, prevalence estimates can vary according to the country, the age of participants, the definition of bullying and to the method of data collection (Atlas & Pepler, 1998; Due et al., 2009; Pepler, et al., 2006; Srabstein, Leventhal, Bennett, 2010; UNESCO, 2017). Moreover, the classification of students as victims or bullies can also differ according to each study and therefore results are not consistent (Wolke & Stanford, 1999). If we focus in questionnaire surveys alone there is also variability depending on the time span considered, which frequency is considered bullying and once again on its definition (Smith, 2013). That is why that according to Smith (2013) “all these issues make it often difficult to compare across studies; it also means that absolute incidence figures are rather meaningless, in isolation.” (p. 85). Along the same lines, Currie et al. (2012) reinforce the argument underlining that culture may play a role in bullying prevalence rates: “bullying victimization and perpetration are prevalent behaviours among young people, but prevalence rates differ considerably across countries. This suggests that cultural factors may affect and influence its acceptability.” (p. 200). Since there are prevalence but also cultural differences between countries generalizations should not be made (Schneider, 2000; Scholte, Engels, Overbeek, de Kemp, & Haselager, 2007). In this context, Smith, Cowie, Olafsson and Liefoghe (2002) argued that the use of pictures as method of data collection enables a trustworthy comparison of results from different countries.

In 2001, Nansel and colleagues found that bullying was highly prevalent in American schools. According to the authors 30% of their sample was moderately or frequently involved in bullying<sup>7</sup>. From these students, 11% were victims, 13% were bullies and 6% were bully-victims (Nansel et al., 2001). In 2003, Solberg and Olweus (2003) reported that from a sample of Norwegian students 10% were victims, 7% were bullies and 2% of bully-victims (using a combined measure of bullying behavior). Kim, Koh and Leventhal (2004) also found a high prevalence of bullying in Korea. They reported that 40% of their sample was involved in bullying incidents: 14% as victims, 17% of bullies and 9% of bully-victims. A study conducted with Latvian and Lithuanian students found similar results. The authors found that 30% of Latvian students and 52% of Lithuanian students were involved in bullying (Gobina, Zaborskis, Pudule, Kalnins, & Villerusa, 2004). In Latvia, 14% of inquired students were victims, 10% were bullies, 6% were bully-victims and 70% were not involved in bullying. In Lithuania, 18% of inquired students were victims, 18% were bullies, 16% were bully-victims and 48% were not involved in bullying. In a study conducted in South Africa researchers found that 36% of a large sample of middle and secondary school students was involved in bullying. From these 19% were victims, 8% were bullies and 9% were bully-victims (Liang, Flisher, & Lombard, 2007). In a study conducted with elementary school students from New Zealand (non-representative sample) researchers found that 15% of them were victims and 13% were bullies (Raskauskas, Gregory, Harvey, Rifshana, & Evans, 2010).

There also have been efforts to collect cross-national bullying prevalence data and to compare it. The survey Health Behavior in School-Aged Children (HBSC)<sup>8</sup> provides data that enables researchers to conduct such studies. Nansel and colleagues (2004) conducted a study based on the data from HBSC 1997/1998. In this edition of the HBSC survey 113,200 students participated, with age averages of 11.5, 13.5 and 15.5, from 25 countries. The involvement rates (victims, bullies or bully-victims) varied according to country, particularly between 9% (Sweden) and 54% (Lithuania) (Nansel et al., 2004). In what concerns being bullied they found an average of 11% of victims between countries. More specifically, Swedish students had the lowest rate (5%) and Lithuanian students had the highest rate (20%). The rates regarding

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<sup>7</sup> These results are based on data collected for Health Behavior in School-Aged Children (HBSC) survey. Further details about this survey will be provided to the reader later in the text.

<sup>8</sup> The HBSC is a cross-national study that is an initiative of World Health Organization (WHO) and in which researchers from several countries collaborate. It provides longitudinal data about matters related to the health and well-being of young people from different parts of the world (Currie et al., 2008). The HBSC survey has been conducted for 30 years, every four years, and now has 44 participating countries (<http://www.hbsc.org/>).

bullying others were higher among Danish students (20%) and lower among Swedish and Welsh students (3%). The overall rate was 10%. Finally, they found an average of 6% of bully-victims. The rates were higher among Lithuanian students (20%) and lower among Swedish students (1%).

Craig and colleagues (2009) conducted a study based on the data from HBSC 2005/2006. In this edition of the HBSC survey 40 countries and 202,056 students aged 11, 13 and 15 participated. Craig and colleagues (2009) compared prevalence rates (by sex and age – for all countries; and by sex, age, country and type of bullying for 6 selected countries) based on the data collected for HBSC. They found that overall 26% of participants were involved in bullying (40-country analysis): 12.6% as victims; 10.7% as bullies, and 3.6% as bully-victims. However, involvement rates varied with marked differences according to country and sex (for boys, between 8.6% in Sweden and 45.2% in Lithuania; for girls, between 4.8% in Sweden and 35.8% in Lithuania) (Craig et al., 2009). The involvement rates were, therefore, lower in northwest European countries and higher in eastern European countries. According to the authors this can be related to culture and social differences, or most likely due to differences in policy. In fact, Scandinavian countries implemented effective national programs to deal with bullying, unlike eastern European countries, and this may explain their lower rates (Craig et al., 2009). In this sense, Craig and colleagues (2009) also advised caution when interpreting these results since data may not be comparable due to cultural or methodological reasons. Nevertheless, the authors also argue that probably cultural differences between countries most likely do not have a major impact on sex or age differences in bullying.

In last two editions of HBSC there seems to be a slight decrease in bullying prevalence figures<sup>9</sup>. In the 2009/2010 edition 213,595 students participated, from 43 countries from in Europe and North America, again with aged 11, 13 and 15. The bullying prevalence data indicated that 32% of 11 aged students, 31% of 13 aged students, and 24% of aged 15 students reported being bullied at school ('at least once in the past couple of months'); and that 27% of 11 aged students, 34% of 13 aged students, and 33% of aged 15 students reported bullying others at school ('at least once in the past couple of months'). If we consider other cut-off point in this case 'at least twice in the past couple of months' the prevalence figures are much lower: 13% of 11 aged students, 12% of 13 aged students, and 9% of aged 15 students reported being bullied at school; and that 8% of 11 aged students, 11% of 13 aged students, and 12% of aged

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<sup>9</sup> The data presented below are taken directly from the official international reports of the of HBSC survey.

15 students reported bullying others at school (Currie et al., 2012). In the more recent edition (2013/2014) around 220,000 students participated from 44 countries from Europe and North America, aged 11, 13 and 15 years. The prevalence data indicated is quite similar to the previous edition: 32% of 11 aged students, 30% of 13 aged students, and 23% of 15 students reported being bullied at school ('at least once in the past couple of months'); and that 24% of 11 aged students, 28% of 13 aged students, and 26% of aged 15 students reported bullying others at school ('at least once in the past couple of months'). If we consider other cut-off point in this case 'at least two or three times in the past couple of months' the prevalence figures are much lower: 13% of 11 aged students, 12% of 13 aged students, and 8% of aged 15 students reported being bullied at school; and that 7% of 11 aged students, 9% of 13 aged students, and 9% of aged 15 students reported bullying others at school (Inchley et al., 2016). To our best knowledge both reports did not provide specific data regarding overall bullying roles frequencies.

The Global School-based Student Health Survey (GSHS)<sup>10</sup> is another survey that includes prevalence data related to bullying experiences from several countries. Fleming and Jacobsen (2009) conducted a study with data from this survey, which was collected between 2003 and 2006. In this survey 104,614 students participated aged 13 to 15, and from 19 countries. Overall 34.2% of respondents reported being bullied in the last month (from these, 7.9% were bullied every day in the last month; 2.9% were bullied 20–29 days; 5.5% were bullied 10–19 days; 8.3% were bullied 6–9 days; 19.7% were bullied 3–5 days; and finally 55.6% were bullied 1 or 2 days). The prevalence of victimization across countries varied between 7.8% in Tajikistan and 60.9% in Zambia. The prevalence of bullying across countries varied between 20-40% (China, Lebanon, Morocco, Oman, Philippines, United Arab Emirates, United Republic of Tanzania and Venezuela) and between 41-61% (Botswana, Chile, Guyana, Jordan, Kenya, Namibia, Swaziland, Uganda, Zambia and Zimbabwe). Although, as mentioned by the authors, it is complicated to compare prevalence rates between countries their results seem to resemble results from previous studies.

According to Fleming and Jacobsen (2009) there is no trend regarding the prevalence of victimization across countries and apparently there is no consensus regarding the prevalence of bullying either, since the range of results is wide. Some studies show that bullying has low

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<sup>10</sup> The GSHS is the product of the collaboration between WHO, UNICEF, UNESCO and UNAIDS. It is a cross-sectional study and provides data related to student health and risk behaviors.



prevalence in North America, China, Japan and some European countries (e.g. Eslea et al., 2003; Nansel et al., 2001; Nansel et al., 2004; Solberg and Olweus, 2003); some studies show an average prevalence in North America, Australia, Korea, South Africa and some European countries (e.g. Alikasifoglu et al., 2007; Bond, Carlin, Thomas, Rubin & Patton, 2001; Eslea et al., 2003; Kim, Koh, & Leventhal, 2005; Liang et al., 2007; Nansel et al., 2004; Ybarra, Diener-West, & Leaf, 2007); and finally other studies show a high prevalence in bullying in North America, Namibia and some countries in Europe (e.g. Nansel et al., 2004; Rudatsikira, Siziya, Kazembe & Muula, 2007; Seixas, 2005).

In regard to Portugal, Carvalhosa and colleagues (2009) report based on data from HBSC survey (Currie et al., 2004; 2008) that “1 in 5 students in basic schools in Portugal were involved in bullying situations” (bullying and being bullied) (p.68). In fact, bullying also became a topic of interest for many researchers in Portugal since the late 90’s and particularly since 2000 (e.g. Almeida, 1999; Almeida, Pereira & Valente, 1995; António et al., 2012; Almeida, Correia, & Marinho, 2009; Carvalhosa, Lima & Matos, 2001; Carvalhosa, Moleiro & Sales, 2009; Correia & Dalbert, 2008; Correia, Alves, Almeida, & Garcia, 2010; Freire, Simão, & Ferreira, 2006; Martins, 2005; Pereira, Almeida, & Valente, 1994; Pereira, Almeida, Valente, & Mendonça, 1996; Pereira, Mendonça, Neto, Valente, & Smith, 2004; Pires, 2001; Raimundo & Seixas, 2009; Seixas, 2005; Sousa-Ferreira, Ferreira, & Martins, 2014; Vale & Costa, 1998; Veiga, 2000). In the late 90’s a prevalence study was conducted with Portuguese students in the north of Portugal (Braga and Guimarães) (Pereira et al., 1996). In this study about 6,200 primary and middle school students participated (from grades 1 to 6). In primary school, the authors found 22% of victims and 20% of bullies; while in middle school they found 22% of victims and 15% of bullies. Later, this study was replicated and schools in the Lisbon area were also included (Pereira et al., 2004). In this replication, 4,092 students participated, from grades 5 and 6: 22% reported that they had been victims and 16% that they had been bullies, three or more times in the last school term. As can be noticed, prevalence frequencies of Lisbon and Braga did not differ. When compared with other 35 countries in 2000, Portugal was in 4<sup>th</sup> place in the ranking with respect to victimization and in the 6<sup>th</sup> place with respect to bullying<sup>11</sup> (Carvalhosa, 2007; Currie, Hurrelmann, Settertobulte, Smith & Todd, 2000).

In 2001, Carvalhosa and colleagues reported that in a sample of 6,903 Portuguese students from grades 6, 8 and 10; aged averages of 11, 13 and 16: 21% were victims, 10% were bullies,

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<sup>11</sup> Data from the HBSC survey.

26% were bully-victims and more than half of the sample was not involved in bullying<sup>12</sup> (Carvalhosa et al., 2001). In 2004, Matos and Carvalhosa (2004) presented a study with Portuguese students in which: 22.1% were victims, 9.4% were bullies, and 27.2% were bully-victims. One in 4 students aged 10 to 18 were involved in bullying incidents ('two or three times a month'), and about 40% of their sample was not involved in bullying. The authors also verified an increase in bullying involvement ('once a week or more') in the last years (Carvalhosa & Matos, 2004). On that basis Carvalhosa (2007) argued that bullying rates were high in Portugal. In 2005, Seixas (2005) conducted a study using concurrently self-report and peer-nominations. In this study, 680 students participated, aged 12 and 17, and from grades 7, 8 and 9. In regard to self-report, 66% referred to be in some way involved in bullying incidents: 54% identified themselves as victims (24% was assumed to be bully-victims) and 12% as bullies. Regarding peer-nominations, 50% of participants were nominated by their peers as not being involved in bullying incidents. With emphasis to the emergence of a new group with 14% of students being nominated as involved in bullying, however, less often. 15% were nominated as victims (6% of this assume to be bully-victims) and also 15 % were nominated as bullies (Seixas, 2005). In 2010, Costa and Pereira (2010) presented a prevalence study<sup>13</sup> with data collected with a Portuguese version of the Olweus Questionnaire (1989) and in which 3,891 students participated aged between 5 and 16. From these 52.3% were not involved in bullying incidents, 11% were victims, 18.8% were bullies, and 17.8% were bully-victims. These frequencies were higher than those found in other previous national prevalence studies (e.g. Carvalhosa, et al., 2009; Pereira, et al., 2004) and therefore, according to the authors, were cause for concern (Costa & Pereira, 2010).

Similarly to international studies, Portuguese researchers have also conducted studies about bullying based on the national data collected for HBSC (e.g. Matos & Gonçalves, 2009; Matos et al., 2001; Matos et al., 2003; Matos et al., 2006). Three of these studies provided important bullying prevalence data and enabled the comparison over the years (Matos et al., 2009). First, Matos et al. (2001) conducted a study based on the data from HBSC 1997/1998. In this study 6,813 students participated, aged 10 to 17 and attending grades 6, 8 and 10. From this 25.7% of participants were involved in bullying incidents (two or more times a month in the last two months): 13.6% as victims, 6.3% as bullies and 5.8% as bully-victims. Secondly, Matos and

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<sup>12</sup> Data collected with the Portuguese version of the questionnaire from the HBSC survey, edition 1997/1998.

<sup>13</sup> In this study only students from schools of one district in the north of Portugal participated.

colleagues (2003) conducted a study based on the data from HBSC 2001/2002. In this study 6,131 students participated, aged 10 to 25 and attending grades 6, 8 and 10. From this 23.2% of participants were involved in bullying incidents ('two or more times a month in the last two months'): 12.8% as victims, 4.7% as bullies and 5.7% as bully-victims. And lastly, Matos and colleagues (2006) conducted a study based on the data from HBSC 2005/2006. In this study 4,877 students participated, aged 10 to 20 and attending grades 6, 8 and 10. From this 20.6% of participants were involved in bullying incidents (two or more times a month in the last two months): 9.4% as victims, 6.3% as bullies and 4.9% as bully-victims. Taking into account the results from three studies, Matos and colleagues (2009) concluded that frequencies related to regular involvement ('two or more times a month in the last two months') in bullying behaviors have consistently decreased since 1998. In the same direction, rates related to intense involvement ('two or more times a week in the last two months') have also decreased between 2002 and 2006, in clear contrast with the registered increase between 1998 and 2002. In both cases the reduction of the number of victims was pivotal to the decrease verified in bullying involvement. Carvalhosa (2005) also reported an increase in the frequency of bullying involvement ('once a week or more') between 1998 and 2002; and later reported in another prevalence study: 13% victims, 5% bullies and 6% bully-victims (Carvalhosa, 2008).

The Portuguese HBSC 2009/2010 edition counted with 4,036 students and the prevalence rates found were: 33% of grade 6 students, 38% of grade 8 students, and 26% of grade 10 students reported being bullied at school (at least once once a week); 29% of grade 6 students, 35% of grade 8 students, and 24% of grade 10 students reported bullying others at school ('at least once once a week'). If we consider a higher frequency the estimates are much lower: 6% of grade 6 students, 5% of grade 8 students, and 4% of grade 10 students reported being bullied at school (several times in a week); 2% of grade 6 students, 3% of grade 8 students, and 3% of grade 10 students reported bullying others at school ('several times in a week') (Matos et al., 2012). In the last Portuguese edition of HBSC, 2013/2014, 6,026 students participated and the prevalence rates found were: 37% of grade 6 students, 35% of grade 8 students, and 29% of grade 10 students reported being bullied at school ('at least once once a week'); 31% of grade 6 students, 31% of grade 8 students, and 21% of grade 10 students reported bullying others at school ('at least once a week') (Matos et al., 2015). If we consider a higher frequency such as 'several times in a week' rates are, similarly to the previous edition, much lower: 6% of grade 6 students, 5% of grade 8 students, and 3% of grade 10 students reported being bullied at school ('several times in a week'); 3% of grade 6 students, 3% of grade 8 students, and 2% of grade

10 students reported bullying others at school ('several times in a week').<sup>14</sup>

According to the international reports, in the 2009-2010 edition, 40% of 11 aged Portuguese students, 42% of 13 aged Portuguese students, and 33% of 15 aged Portuguese students reported being bullied at school ('at least once in the past couple of months'); 31% of 11 aged Portuguese students, 39% of 13 aged Portuguese students, and 28% of 15 aged Portuguese students reported bullying others at school ('at least once in the past couple of months') (Currie et al., 2012). In the 2013-2014 edition: 41% of 11 aged Portuguese students, 41% of 13 aged Portuguese students, and 34% of aged 15 Portuguese students reported being bullied at school ('at least once in the past couple of months'); 30% of 11 aged Portuguese students, 34% of 13 aged Portuguese students, and 26% of 15 aged Portuguese students reported bullying others at school ('at least once in the past couple of months') (Inchley et al., 2016)<sup>15</sup>.

To conclude, there is empirical evidence that bullying prevalence worldwide has been slowly decreasing over time (e.g. Chester et al., 2015; Nansel et al., 2003; Rigby & Smith, 2011; Smith, 2013), most likely due to prevention and intervention actions (Currie et al., 2012). Nevertheless, bullying is still highly prevalent in some countries and that justifies keeping investing in its reduction (Currie et al., 2012). In what respects Portugal, in particular, as it can be verified national frequencies are in general slightly higher than the average of all participating countries (as mentioned earlier in this section). In fact, according to recent news, "Portugal is the 15th country with the more reports of bullying in Europe and North America, ahead of the United States" ("Portugal teve mais relatos", 2017)<sup>16</sup>. This may be cause for concern and may reflect a lack of national concerted prevention and intervention strategies.

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<sup>14</sup> The data presented below were taken directly from the official national reports of the HBSC survey. In these reports frequencies were reported by school year instead of according to the age of participants (as they are usually presented in the international reports).

<sup>15</sup> Due to the fact that the time span considered is different from the one considered in the international reports we considered it was important to also refer the estimates provided by the latter. Despite the risk of being in some extent exhaustive we considered that it was necessary in order allow the comparison between Portuguese estimates and the overall estimates of all participating countries. To our best knowledge no overall estimates for higher bullying involvement frequencies regarding Portuguese students were presented in the international reports.

<sup>16</sup> As reported in 'A Familiar Face: Violence in the lives of children and adolescents' (UNICEF, 2017) and based on data from HBSC 2009-2010 edition and 2013-2014, and GSHS 2003-2016 edition.

## 2. ATTITUDES AND NORMS IN BULLYING EXPERIENCES

- **Attitudes towards bullying**

According to Lima and Correia (2013) an attitude is "a predisposition to respond favorably or unfavorably to an object, persons, an institution or an event " (p. 203). Attitudes can be instrumental to support bullying and constitute a very important branch of bullying research (Hymel, Rocke-henderson, & Bonanno, 2001; Menesini et al., 1997). They are influenced by context and depend on "who holds them (boys or girls), towards whom (boys/girls, bullies or victims) and under which condition" (p. 594) (Baldry, 2004). They also can differ according to sex and role due to what is expected of those behaviours, and may also vary according to whether bullying occurs in a group or not (Baldry, 2004).

The literature indicates that the majority of students condemns bullying (or is neutral about it), does not blame victims and sympathizes with them (e.g. Baldry, 2004; Boulton & Underwood, 1992; Eslea & Smith, 2000; Gini et al., 2008b; Menesini et al., 1997; Rigby & Slee, 1991; Rigby & Slee, 1993; Whitney & Smith, 1993). In a study in which hypothetical bullying episodes were presented to participants it was found that they not only were against bullying and pro-defenders but also considered passive behaviour as negative (being a passive bystander or outsider) (Gini et al., 2008b). There is also evidence that students do not like fights and teasing, and not only feel upset with bullying but also do not quite understand its motivations (Mooney, Creeser, & Blatchford, 1991; Whitney & Smith, 1993).

However, there are still many students who show understanding for bullies and considered that victims should defend themselves (Rigby, 1996). A minority of students perceives victims as weak and for that reason has little regard for them, considers that they deserve to be bullied and avoid interacting with them (Rigby, 1996, 1997; Rigby & Slee, 1991). These may be explained by the fact that by blaming others or the circumstances, individuals can exonerate themselves from their misconduct, and by doing this they avoid feeling guilty. To witness the victims' suffering for which they may be partly responsible for also leads them to denigrate the victims (Lerner & Miller, 1978). Some students even admit to enjoy bullying and that they might participate in a hypothetical incident; and most likely they frequently act accordingly in real life situations (Bjorkqvist et al., 1982; Boulton & Flemington, 1996; Whitney & Smith, 1993). In this sense, there are also students that have positive attitudes regarding bullies and, in contrast, negative attitudes regarding victims (Menesini et al, 1997; Rigby, 1996, 1997). Bullies may be admired and perceived as strong and brave by some students however, they are not liked (Baldry, 2004; Olweus, 1978; Rigby & Slee, 1991).

- **Attitudes towards bullying and behaviour in bullying**

Although in general students disapprove of bullying and may intend to help victims this does not prevent them from frequently being passive in the face of bullying and the suffering of the victim (Rigby & Johnson, 2006; Salmivalli & Voeten, 2004). Many students report that they would like to help the victim if they had the courage to do it (Salmivalli, 1992). A student may feel empathy for the victim, perceive bullying negatively and yet be influenced by the class to join in or to not act according to his/her true attitude (Salmivalli & Voeten, 2004).

It has been shown that both defenders and passive bystanders (or outsiders) have high empathy levels, which shows that there are other variables that may also influence defending behaviour. For example, it has been found that these roles differ as regards to their self-efficacy. Namely, that low self-efficacy was related to passive bystander behaviour independent of empathy levels, and that self-efficacy beliefs were related to intervening on behalf of the victim (Gini et al., 2008a). They may “be highly empathic, they may perceive the victim’s suffering and may also wish to help the victim but, nevertheless, they may remain passively outside if they do not believe that they are able to intervene efficaciously.” (p. 101) (Gini et al., 2008a).

Bystanders may also have selfish reasons not to intervene or simply not want to (Hoffman, 2000). For their part, victims frequently consider these passive bystanders as being supportive of bullies although they do not actively participate in bullying (Cowie, 2000). A student may also be a passive bystander in bullying incidents because he or she does not feel responsible for intervening, does not have the adequate skills to stop bullying or out of fear of being bullied him or herself (Bandura, 1991; Hazler, 1996; Lodge & Frydenberg, 2005). According to Whitney and Smith (1993), 56% of students are passive bystanders even though they would like to intervene or simply because they consider that it is not their responsibility; 44% of them do intervene. Pozzoli and Gini (2010) actually found that low responsibility was related with passive behaviour and, in contrast, higher responsibility was related with defending behaviour. According to these authors, their findings “seem to confirm that active intervention in favor of a peer who is being bullied at school is linked to some kind of ‘moral’ assumption of responsibility (Menesini & Camodeca 2008), while processes of diffusion or displacement of responsibility might lead to passivity (Bandura, 1991).” (p. 825).

Positive attitudes regarding victims are positively associated with being a defender and negatively associated with being a passive bystander; however, attitudes alone do not explain why students assume the role of defenders or remain passive bystanders (Pozzoli & Gini, 2010). In fact, there is not necessarily a direct link between attitudes and behaviour in bullying

(Salmivalli et al., 1996; Rigby & Slee, 1991). According to Pozzoli and Gini (2010) this may be an indication of the risk and complexity involved in intervening in a bullying incident.

In their cross-national study Menesini and colleagues (1997) found differences in attitudes towards bullying between two countries. Namely, older English students' anti-bullying attitudes (thoughts and feelings) were weaker than older Italian students' attitudes. In regard to intervention (actions to help) no differences between countries were found. One should be cautious however, when interpreting the reported differences since there may be some confounds such as: linguistic differences in items translation, cultural and age differences between middle and secondary schools in the two countries (Menesini et al., 1997). For this reason, the authors focused on the results that were similar. As far as attitudes of bullies were concerned, in both countries, bullies tended to be less understanding of victims and more understanding of other bullies; and therefore as witnesses of bullying situations they were more likely to actually join the aggression than to defend the victim (Menesini et al., 1997). This may explain the fact that bullies have higher moral disengagement in clear opposition to defenders, who tend to have low moral disengagement (see for review Bandura, 1999, 2001, 2002) levels. Actually, through cognitive mechanisms such as this they are able to legitimate their aggressive behaviour (Almeida et al., 2009; Menesini, Fonzi & Vannucci, 2009; Menesini et al., 2003).

In sum, bullies have negative attitudes and lack empathy towards victims (Carney & Merrell, 2001; Rigby, 2005). On the other hand, they tend to have a positive attitude towards bullying (Pellegrini, Bartini, & Brooks, 1999) which may be associated with reasons of different nature (Menesini et al., 1997): (1) aggressive boys tend to have bias and attribute hostile intentions to others; (2) aggressive children tend to believe that aggression has its rewards and reduces the negative behaviour of others; and (3) that aggression helps boost self-esteem, it does not cause pain to victims and it is "a legitimate response" (p. 246) (Dodge & Frame, 1982; Dodge & Newman, 1981; Gouze, 1987; Perry, Perry, & Rasmussen, 1986; Slaby & Guerra, 1988). Their attitudes also contrast, unsurprisingly, from those of victims and bully-victims who tend to have a negative attitude towards bullying (Pellegrini, Bartini, & Brooks, 1999); and according to Menesini and colleagues (1997) are likely to support each other (Rigby & Slee, 1991). Nevertheless, victims may also consider themselves responsible for their plight (Graham & Juvonen, 1998).

- **Attitudes towards bullying according to type of bullying and individual characteristics**

There have been found differences in attitudes depending on type of bullying and on individual characteristics, such as sex and age. Namely, students tend to blame the victim more in cases of direct bullying (Gini, 2008; Gini et al., 2008b). This may be related with the fact that direct bullying (verbal and physical forms) can be perceived as a more serious type of aggression since its motivations can also be perceived as more serious and maybe because its consequences are more evident. However, this seems to be particularly the case of young children since middle school students did not have different attitudes towards victims (blaming) depending on the type of bullying (Gini et al., 2008b). In contrast to younger ones, these students may not perceive direct bullying as more serious and most likely indirect bullying is more common among them (Coie & Dodge, 1998; Gini et al., 2008b; Rubin, Bukowski, & Parker, 1998). Gini and colleagues (2008b) advise, nevertheless, caution when interpreting these differences since they are small. Nishina and Juvonen (2005) found differences regarding the two forms of direct bullying, verbal and physical. According to them students worry and have more sympathy when they witness a classmate being verbally bullied than when he/she is the target of physical bullying. This may be due to the fact that witnesses are more likely to also have been verbally bullied (most common) and hence empathize more easily with targets of verbal bullying (Nishina & Juvonen, 2005).

Perhaps due to gender identification boys blame more female victims and girls blame more male victims. The fact is that a person is more likely to evaluate in-group members positively, as means to protect identity, when something bad happens to them. Therefore the *attribution bias of blaming the victim* should take place when it comes to out-group members (Baldry, 2004; Capozza & Brown, 2001). Girls are more blamed when bullied by a group and boys are more blamed when bullied by a single student (Baldry, 2004). Bullying in a group is perceived as acceptable among boys since it is associated with status in the peer group and this may explain these findings (Baldry, 2004; Salmivalli et al., 1996; Sutton & Smith, 1999). Girls blame victims more when a single person perpetrates the bullying and, in contrast, boys blame them more when a group does it (Baldry, 2004). In fact, according to Baldry (2004), this may be associated with the fact that victims are more positively evaluated by girls when a group perpetrates bullying and more positively evaluated by boys when a single person does it. Nevertheless, it is also possible that girls identify more with the type of bullying that usually occurs among them (Baldry & Farrington, 1999).



In what concerns age, Bradshaw, Sawyer and O’Brennan (2009) report that “whereas approximately a third of the elementary students endorsed retaliatory attitudes, over half of the middle school students indicated support for aggressive responses to threat” (p. 213). In fact, as students grow their attitudes become more pro-bullying (Gini, 2006; Gini, et al., 2008b; Whitney & Smith, 1993) and less they support or like the victim<sup>17</sup> (Rigby & Slee, 1991, 1993; Gini et al., 2008b). Moreover, over time more students are likely to dislike victims for their weakness (Gini et al., 2008b; Rigby & Slee, 1991). According to Menesini and colleagues (1997) this comes a little bit as a surprise since victimization tends to decrease between primary and secondary school, and as students grow older tend to be more empathic (Menesini et al., 1997; Olweus, 1993; Whitney & Smith, 1993; Rigby, 1996). In their study, they found that the anti-bullying attitudes decreased between primary and middle/secondary school. Middle/secondary school students were more likely to join bullying or not help the victim than primary school students. This decrease seems to be transversal to both sexes and confirms the expectation that older children have that their colleagues will help them less (Menesini et al., 1997).

- **Norms in bullying**

The *social identity theory* (Turner, 1991; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) postulates that being part of a group allows individuals to have a sense of *social identity*. This sense characterizes those who belong to the group and indicates how they should behave (Ojala & Nesdale, 2004). The norms are not only specific to a given group but are also what makes that group unique (Turner, 1999). The members actually behave according to its norms because they are an expression of a relevant part of their *social identity* (Duffy & Nesdale, 2009). The more a group member identifies with a group the more his or her behaviour tends to be in line with its norms (e.g. Jetten, Postmes & McAuliffe, 2002). As already mentioned, those who belong to the same group also tend to be similar to each other regarding their involvement in bullying, and therefore bullies are likely to belong to the same friends’ group. In fact, the norms may exert such pressure that unless his or her friends want to stop bullying a student may not change his or her behaviour and feel the need to bully, in order to be continue to belong to the group (Burns, Maycock, Cross, & Brown, 2008). For that reason, it may not be surprising that

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<sup>17</sup> As mentioned earlier in this chapter, students become more attracted to their aggressive peers as they grow older (see for review *attraction theory*, Bukowski, Sippola & Newcomb, 2000; Moffitt, 1993).

in groups in which bullying is normative its frequency is higher than in groups in which it is not a normative (Duffy & Nesdale, 2009). Group members who are not targets also try their best to follow the norms to avoid becoming the next victims or risk their social status among their peers (Salmivalli, 2010). Even so, the members who ‘dare’ to behave against group norms risk being derogated by other members (see for review *black sheep effect*, Marques, Yzerbyt, & Leyens, 1988).

A child’s behaviour is evaluated according to the norms of the group that he/she belongs to (*person-group dissimilarity model*) (Wright, Giammorino & Parad, 1986). Previous studies have shown that children who exhibited aggressive or withdrawal behaviours were rejected in groups where those behaviours were non-normative. However, this did not occur in groups where aggression or withdrawal were perceived as acceptable behaviours (Boivin, Dodge, & Coie, 1995; Stormshak, Bierman, Bruschi, Dodge, & Coie, 1999; Wright et al., 1986). When children do not behave according to what is normative in their group they are perceived as ‘social misfits’ (results found in experimental studies with play groups, Boivin, et al., 1995; DeRosier, Cillessen, Coie, & Dodge, 1994). Similar results regarding this hypothesis have been found in school and in classrooms (e.g. Chang, 2004; Jackson, Barth, Powell, & Lochman, 2006; Rhodes, Roffman, Reddy, & Fredriksen, 2004; Stormshak et al., 1999).

In fact, the classroom is where important group processes take place and it has a decisive role in children’s involvement in bullying (Espelage et al., 2003). Classroom norms are shared principles concerning the behaviours that are rewarded or sanctioned by peers within the classroom (Salmivalli & Voeten, 2004). Ojala and Nesdale (2004) define them as “as attitudinal and behavioural uniformities or shared beliefs about the appropriate conduct for a group member.” (p. 21). Norms are at the origin of attitudes towards bullying and maintain them (Ojala & Nesdale, 2004). They also provide important information to understand bullying (Duffy & Nesdale, 2009) namely, why bullying is more likely to happen, and why peers who witness bullying are more likely to intervene on behalf of the victim, in some classes and not in others (Salmivalli, 2010).

Sentse, Scholte, Salmivalli and Voeten (2007) applied *the social misfit hypothesis* to bullying and suggested that when bullying is normative in a classroom that may condition the association between involvement in bullying and peer preference (operationalization of social status). It has been found that bullies were more likely to be rejected in classrooms where bullying was not normative and less likely to be rejected (or to be even preferred) in classrooms where bullying was normative. Victims were low on peer preference even when victimization was normative in their classroom. Nevertheless, they were more liked in this case than when

victimization was not normative. These two groups suffered from more rejection by their peers when compared to the other colleagues, even though bullies were better positioned than victims (Boulton & Smith, 1994; Lagerspetz et al., 1982).

The contextual effects are also important for the roles that students can assume when they witness bullying. In fact, there are major differences between classrooms in how much students reinforce the bully or defend the victim (Salmivalli & Voeten, 2004). As mentioned in the previous section students' private attitudes do not necessarily correspond to what is normative in a classroom (Salmivalli, 2010). For example, a student may empathize with the victim and consider that bullying is wrong and simultaneously participate in bullying or at least not intervene, due to the influence of peers (Salmivalli & Voeten, 2004). Nevertheless, influence can also happen on the opposite direction, children in a privileged position in the class can change norms and maybe be able to foster defending behaviour (Dijkstra, Lindenberg, & Veenstra, 2008; Sainio, Veenstra, Huitsing, & Salmivalli, 2010). Norms such as the *norm of reciprocity* or the *social responsibility norm* are norms that actually prescribe prosocial behaviour and that are learnt socially (Eisenberg & Mussen, 1997; Hogg & Vaughan, 2005; Thornberg, 2007). If the first norm recommends that people should help those who helped them, the latter recommends that people should help those in need or those that depend on them (Thornberg, 2007). Thornberg (2007) argues that prosocial behaviour may be inhibited due to reasons such as people not knowing how they can help, considering that it is too risky for them to help others, being influenced not to act by others as already mentioned above in the present section (e.g. *bystander effect*, Hoffman, 2000), or following other norms that prevent them from behaving prosocially (e.g. *norm of obedience to authority*, Milgram, 1974). However, bystanders' behaviour may ultimately depend on their personal interpretation of how emergent a situation is (Blumer, 1969; Charon, 2001; Crick & Dodge, 1994; Latané & Darley, 1970). Bullying may be often interpreted as common and for that reason it may not elicit bystanders' concern and may prevent them from intervening (Hoffman, 2000; Latané & Darley, 1970; Thornberg, 2007, 2010).

In a classroom we may find a range of attitudes towards bullying however, the attitudes of friends are what influence children the most. In this sense, Duffy and Nesdale (2009) argued that the focus should be on the peer group since focusing on the classroom can prevent researchers from perceiving the peer group norms' real impact. Ojala and Nesdale (2004) conducted experimental research about the impact of peer group norms on attitudes and found that children were aware that in order to be a member of a group they had to behave accordingly to its norms, even if norms were pro-bullying.

## ***CHAPTER 2 – THE IMPACT OF BULLYING***

### **1. BULLYING, PSYCHOPATHOLOGY AND POSITIVE PSYCHOLOGICAL CONSTRUCTS (WELL-BEING)**

Throughout life, relationships are fundamental to well-being and enable individuals to develop in a healthy way. In this sense, bullying can have serious consequences due to the negative relationship dynamics that are established, and that may persist into adulthood (Craig & Pepler, 2007). Bullying also has an impact at the societal level such as the costs deriving from problems associated with it (e.g. criminal behavior and health issues associated with bullying raise the costs of justice and health care systems) (Craig & Pepler, 2007; Pepler, Jiang, Craig, & Connolly, 2008; Rigby, 2003).

Bullying has an impact on all of those who are directly and indirectly involved in it, such as victims, bullies or bystanders. The research about this impact on youth has been focused primarily on psychopathology and a little less on well-being. There is an established association between victimization and high distress, and this has been interpreted as bullying being the cause of mental-health problems (Houbre et al., 2006). However, there are also researchers and other studies that propose that it is the psychological dispositions (e.g. low self-esteem) that lead to being bullied and not otherwise. For example, it has been found, in particular, that children that suffered with depression or anxiety were more likely to be victims (Goswami, 2011; Hodges, Malone, & Perry, 1997; Hodges & Perry, 1999; Schwartz, Dodge, & Coie, 1993). Anxiety and low self-esteem are in turn associated with low subjective well-being (Mishna, Newman, Daley, & Solomon, 2009). In the same vein, some researchers suggest that students can be predisposed to determined roles, which does not invalidate that being recurrently bullied can exacerbate preexisting psychopathology (Aubert, 2001; Houbre et al., 2006; Olweus, 1978).

As regards to the results on the presence of problems (internalization and externalization) the literature reveals that victims tend to self-blame for being bullied, to think more negatively about themselves, and to suffer from psychosomatic problems (namely, cognitive problems); to be more anxious and depressive, to have suicidal thoughts, to have lower self-esteem and low locus of control; to be lonely/socially isolated and dysphoric, and to be dissatisfied with social relationships (Bradshaw, Waasdorp, & Johnson, 2015; Graham, Bellmore, & Mize,

2006; Graham & Juvonen, 1998; Kochenderfer-Ladd & Wardrop, 2001; Hawker & Boulton, 2000; Houbre et al., 2006; Nansel et al., 2001; Pranjjic & Bajraktarevic, 2010; Slee, 1993, 1994, 1995; Slee & Rigby, 1993; UNESCO, 2014, 2017). Victims also had poor physical health (e.g. stomach aches and headaches, problems eating and sleeping) (Bogart et al., 2014; Slee, 1994; United Nations, 2016).

In general, this trend has been found regardless of gender, age and type of aggression (Hawker & Boulton, 2000). However, there is evidence of gender differences in respect of symptoms of poor physical health in victims (Williams, Chambers, Logan, & Robinson, 1996). For example, it has found that girls' symptomatology was more varied; they also suffered more from sleep disorders and nerves; and that boys had more headaches (Natvig, Albrektsen, & Qvarnstorm, 2001; Williams et al., 1996). When bullying and distress were higher, and when victims were less supported, they experienced more symptoms (Williams et al., 1996). In fact, their maladjustment varies according to the frequency with which they are victimized; that is, maladjustment is greater when victims are more often targeted (United Nations, 2016). The evidence of their maladjustment has been found in studies that used different informants and therefore they are not a mere chance resulting from shared method variance (Hawker & Boulton, 2000).

Bully-victims may have lower levels of physical and psychological functioning than both victims and bullies (Veenstra et al., 2005). They are the group with the higher number of reported symptoms; they have the lowest self-concept scores and suffer from more psychosomatic problems (namely, neurovegetative, digestive and skin problems, and somatic pain) (Houbre et al., 2006). They have also been described as less socially accepted and rejected by their peers, and have been associated with high neuroticism and psychoticism (Bowers, Smith, & Binney, 1992; Mynard & Joseph, 1997). Moreover, it was also found that both victims and bully-victims had higher post-traumatic stress, which was related to substance use. The use of substance, and other risk behaviours, may indeed be a way to try to increase self-esteem, since victimization hinders adolescents' well-being (Houbre et al., 2006).

Bullies are described as dominant, anxious, and both as popular and as rejected by their peers (Boulton & Smith, 1994; Lagerpetz, Bjorkqvist, Berts, & King, 1982; Olweus, 1994). Nevertheless, they also have been described as having a quite similar profile to non-involved students (the better psychosocially adjusted group); researchers have found that both have high self-esteem and were less lonely and depressed than those who were bullied (victims and bully-victims). However, bullies perceived more stress similarly to these two groups (Estèvez, Murgui & Musitu, 2009). Bullies have been more associated with externalizing behaviors (e.g.

hyperactivity) while victims have been more associated with internalizing behaviors such as those described above (e.g. withdrawal); and bully-victims have been associated with both externalizing and internalizing behaviors (Kumpulainen et al., 1998; Laukkanen, Shemeikka, Notkola, Koivumaa-Honkanen, & Nissinen, 2002; Wilkins-Shurmer et al., 2003). Bullies also have low self-concept scores and experience psychosomatic problems (in particular, neurovegetative and digestive problems) (Houbre et al., 2006).

When comparing roles, Natvig and colleagues (2001) found that both victims and bully-victims had more psychosomatic symptoms than bullies, who in turn had more symptoms than non-involved students. Bullies, similarly to victims, also experience problems at school due to their aggressive behavior; even so, they seem to face less psychological adjustment challenges than victims. In fact, there is evidence that bullies are more psychologically adjusted than victims and bully-victims (Estèvez et al., 2009). Bully-victims are, on the other hand, at greater risk not only for psychological maladjustment but also for academic problems (Graham, Bellmore & Mize, 2006). Indeed it has been found that being victimized is associated to school related difficulties such as dropping out of school (Cornell, Gregory, Huang & Fan, 2013) and low academic results, due to the fact that these students are less engaged with school and to the psychological distress that they experience (Totura, Karvre, & Gesten, 2014).

Along the same lines, bystanders also suffer the mental and emotional consequences of bullying (UNESCO, 2017; WHO, 2016) since “unsafe learning environments create a climate of fear and insecurity and a perception that teachers do not have control or do not care about students’ well-being, and this reduces the quality of education for all students.” (p. 27) (UNESCO, 2017).

As mentioned above, research has been more focused on psychopathology indicators in detriment of more positive measures, namely well-being indicators such as positive affect or life satisfaction. This may have led to an underestimation of the negative impact of being bullied since some victims may not exhibit psychopathological problems and yet have low levels of well-being (Martin & Huebner, 2007). In the same direction, Fullchange and Furlong (2016) argue that “it is incomplete to consider only the negative psychological consequences for youth who are victims of bullying because they may very well have diminished positive development, even if they do not suffer significant psychological distress.” (p. 3). However, there are some exceptions to this general trend. Previous findings have established that bullying reduces subjective well-being, has a key role on adolescents’ health-related quality of life and has negative consequences for their social functioning and psychosocial well-being (Goswami, 2011; Rees, Bradshaw, Goswami & Keung, 2010; Wilkins-Shurmer et al., 2003). For example,

it has been reported that being victimized contributed to having low life satisfaction (Flaspohler et al., 2009; Moore, Huebner, & Hills, 2012; Flouri & Buchanan, 2002) and negative affect (Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004; Hawker & Boulton, 2000), and that victims felt unhappy at school (Slee & Rigby, 1993). Along the same lines, Konu, Lintonen and Rimpelä (2002) refer an association between not being a victim and high levels of subjective well-being; and Estèvez and colleagues (2009) found that non-involved students were more satisfied with their lives than all of those that were directly involved. They also found that bullies were less satisfied with their lives similarly to victims and bully-victims (Estèvez et al., 2009).

In a more recent study, researchers found that bullying is likely to have an impact in positive indicators (belief-in-self, belief-in-others and engaged living<sup>18</sup>) even when it takes place only ‘once a month or less’. In fact, they found evidence of impact irrespectively of the frequency of bullying (belief-in-self and engaged living). Contrary to what happens regarding psychopathology, higher frequencies did not contribute to increase this negative impact (exception made in the case of belief-in-others which diminishes more when bullying occurs more often) (Fullchange & Furlong, 2016).

Martin and Huebner (2007) found that overt victimization was negatively associated with life satisfaction and positive affect, and positively associated with negative affect; and that relational victimization was negatively associated with life satisfaction and positively associated with negative affect. Holder and Coleman (2009) found a negative association between negative social relationships and happiness. On the other hand, prosocial interactions can be a protective factor of adolescents’ well-being since they are positively associated with life satisfaction and positive affect (Martin & Huebner, 2007).

The exclusion of measures such as prosocial experiences from studies may also prevent researchers from fully understanding the relationship between victimization and well-being. There is evidence that social relationships are positively associated not only with well-being (particularly, subjective well-being – e.g. happy people have stronger social ties) but also with belonging (Argyle, 2001; Myers & Diener, 1995; Diener & Seligman, 2002; Goswami, 2011;

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<sup>18</sup> “The SEHS-S is part of the Social Emotional Health Module of the CHKS (<http://chks.wested.org/administer/supplemental2#seh>; see also Furlong, Ritchey, & O’Brennan, 2009; Hanson & Kim, 2007) and consists of 12 subscales, with three items per subscale, that assess four latent traits: belief-in-self (self-awareness, persistence, self-efficacy), belief-in-others (school support, family coherence, peer support), emotional competence (empathy, self-control, emotion regulation), and engaged living (gratitude, zest, optimism).” (p. 4) (Fullchange & Furlong, 2016).

Konu, Lintonen, & Rimpelä, 2002; Morrow, 2001). Along the same lines, Schonert-Reichl, Buote, Jaramillo and Foulkes (2008) show that there is an association between support from parents and peers in early adolescence and happiness and optimism. It was found that the relationships which had the greatest impact on children's well-being were with family and with friends/peers (positive interactions vs. being bullied) (Goswami, 2011; Huebener, 1994). For example, adolescents that interact positively with their parents might be more prepared to deal with problems in their life and to have more quality of life as adults. Those who communicate openly with their parents and have close relationships with them have higher well-being and more internal resources (Ben-Zur, 2003). Positive relationships with peers are also very important and they have been associated with children's present and also future well-being (Oberle, Schonert-Reichl & Thomson, 2009), namely with: being accepted and socially competent in later school years, better school performance, higher emotional well-being and self-esteem, and more prosocial behaviors (Kuperschmidt & Coie, 1990; Rubin et al. 2006; Wentzel, 2003, 2009). There is still need, however, to clarify if it is having positive social interactions that increases happiness (e.g. Diener & Oishi, 2005) or if it is happiness that causes positive social interactions (Lyubomirsky, King, & Diener, 2005). Furthermore, if positive interactions with relevant others (such as family, friends) contributed positively to their well-being, negative interactions with them (such as bullying or unfair treatment by adults) reduced it.

Positive interactions with peers tend to have a less significant impact on children's mood, life satisfaction, illness and stress than negative interactions, (e.g. Finch, Okun, Pool, & Ruehlman, 1999; Hirsch & Rapkin, 1986; Rook, 1984, 1990). Children that have negative interactions with their peers tend to be more lonely and less satisfied at school which has a negative impact on their subjective well-being (Ladd, Kochenderfer, & Coleman, 1996; Parker & Asher, 1993). Moreover, negative relationships with peers have also been associated with school dropout in early years, substance abuse, mental health problems and delinquent behavior (McDougall, Hymel, Vaillancourt & Mercer, 2001; Woodward & Fergusson 1999).

There are fewer studies that have examined the long-term effects of bullying (Schafer et al., 2004) and many were developed with very specific populations (e.g. 'love-shy' men, adults with a stammer) (e.g. Gilmartin, 1987; Hugh-Jones & Smith, 1999). Nevertheless, bullying has an important role in long-term psychosocial development (Ttofi, Farrington, Losel & Loeber, 2011) and can indeed also have negative consequences in adult life (Allison, Roeger, & Reinfeld-Kirkman, 2009; Boulton, 2013; Carlisle & Rofes, 2007; McDougall & Vaillancourt, 2015; Miller & Vaillancourt, 2007; Storch et al., 2004; Takizawa, Maughan, & Arseneault,



2014; Will, van Lier, Crone & Güroğlu, 2015). Indeed, there is empirical evidence that: compares the severity of long-term effects of bullying with those of child abuse (Carlisle & Rofes, 2007); and shows that those who were bullied at school are more likely to experience health related problems (mental and physical) and have lower quality of life as adults than those who were not (Allison et al., 2009). Students who were bully-victims in school are even in greater risk than pure victims, namely regarding workplace victimization (Smith et al., 2003). However, the pervasive impact of bullying can endure until adult life not only for those who are bullied (that can continue to be hurt and be afraid because they were bullied) but also to those who bully (that may continue to establish relationships with others through power and aggression) (Craig & Pepler, 2007). For example, bullies have been associated with dating aggression and sexual harassment (McMaster, Connolly, Pepler & Craig, 2002; Pepler, Craig, Blais & Rahey 2005). Nevertheless, it seems that frequency also plays a role since there is evidence that those who were bullied or bullied others more often are at greater risk of later psychopathology than those who were bullied less frequently (Rønning et al., 2009).

As far as we know there are no studies about the long-term effects regarding other roles in bullying which is a gap in research. And the fact that bullying studies have mainly focused on psychopathology as regards to its impact is also an opportunity to develop studies that include not only other roles but also positive indicators. Retrospective studies have also been more focused on the presence of problems than on well-being related outcomes. In this sense, we have decided to include positive measures in our studies. And given that this area has been less explored in the context of bullying we considered that it would be important to delve a little more into positive psychology literature, in particular of subjective well-being.

## **2. POSITIVE PSYCHOLOGY BACKGROUND**

Well-being consists of an evaluation and a ‘desirable psychological state’ that is likely to be modified due to ‘developmental achievements and life events’ (Schumtte & Ryff, 1997). The study of well-being has raised growing interest due to the realization that the field of psychology had been very focused on what makes people unhappy and suffer, and very little attention had be given to what makes people have a positive functioning and be happy (Diener, 1984; Jahoda, 1958).

There are two major trends in the study of well-being: *hedonic well-being theories* (happiness) and *eudaimonic well-being theories* (purpose) (Gallagher, Lopez, & Preacher, 2009; Keyes, Shmotkin, & Ryff, 2002). The *hedonic theories* have emerged in the 50s and have been the most studied. They include research conducted by Diener (1984), who used the term subjective well-being as a synonymous of hedonic well-being (Gallagher et al., 2009; Keyes et al., 2002). Diener (1984) developed a model according to which people evaluate their lives cognitively (life satisfaction) and affectively (emotions/mood) (Gallagher et al., 2009). The *eudaimonic theories* have emerged later, in the 80s, and Ryff (1989) is one of their greatest contributors (Keyes et al., 2002). She developed the concept of psychological well-being that is about flourishing towards life challenges. Six psychological dimensions compose this model, namely: self-acceptance, personal growth, autonomy, positive relations with others, environmental mastery and purpose in life (Keyes et al., 2002). These dimensions are associated with the challenges people face when they are trying to live a positive life (Keyes et al., 2002; Ryff, 1989; Ryff & Keyes, 1995). Subjective well-being and psychological well-being are “empirically distinct” (p.1018) and study different but correlated characteristics of a “positive psychological functioning” (p. 1009) (Keyes et al., 2002).

According to Keyes and colleagues (2002) “although people live in objectively defined environments, it is their subjectively defined worlds that they respond to, thus giving prominence to subjective well-being as a relevant index of people’s life quality.”(p.1007, Andrews & Withey, 1976; Campbell, Converse, & Rodgers, 1976). In the present thesis we were interested in explore how adolescents and young adults, who are or were involved in bullying incidents, subjectively define their lives, and for that reason it will be focused solely on subjective well-being. The way people live is the object of interest of subjective well-being. This field of research relies on subjectivity, implicating individuals’ perspective of their own lives, and studies how they evaluate them (cognitively and affectively) (Diener, 1984; 2000). It measures all life domains and relies on positive indicators, instead of focusing in the absence of negative indicators that used to be more common in mental health research (Diener, 1984).

At first individuals may have a strong response to the good and bad things that happen to them but it is likely that with time, since they eventually adapt to situations, their happiness levels return to normal (Brickman & Campbell, 1971). This prevents individuals from being permanently happy or desperate. The stronger responses are usually associated with new situations but they tend to attenuate with time (Diener et al., 1999). In fact, recent situations tend to have a stronger impact on well-being when compared to past situations (e.g. Suh, Diener, & Fujita, 1996). It has been found that individuals do not take much time to adapt to

many situations (Suh, Diener, & Fujita, 1996) however; they may not completely adapt to all situations they experience (Diener, 2000). Depending on the situation individuals may adapt quickly (e.g. prison), take a little more time (e.g. death of a loved one) and hardly or never adapt (e.g. noise) (Frederick & Loewenstein, 1999). People may not adapt to some situations even after a long time. Although situations also play their part, long-term levels of subjective well-being are greatly influenced by the temperament and the personality of individuals. Their well-being baseline may, even so, fluctuate according to how propitious their life circumstances are in the long run (Diener, 2000).

Diener (1984) argued that subjective well-being can be influenced ‘through top-down’ or ‘bottom-up’ processes. The ‘bottom-up’ factors are extrinsic to individuals (e.g. external events, demographics) and the main idea is that individuals are happy if their life circumstances let them fulfill ‘basic and universal human needs’ (Wilson, 1967; Diener et al., 1999). However, these external variables only explained small percentages of the variance in subjective well-being and for that reason the ‘top-down’ factors have received more attention from researchers. These factors are intrinsic to individuals and the main idea is that individuals have structures (e.g., personality traits) that condition their perception of situations (Diener et al., 1999). Individuals can have diverse reactions to same situations. They assess the circumstances accordingly to what they expect, to their values and to what they have experienced before. In sum, subjective well-being can be influenced by individual characteristics, situations and environment (Diener et al., 1999).

- **Subjective Well-Being Indicators: Life satisfaction and Positive and Negative Affect**

To have high subjective well-being corresponds to being satisfied with life and feeling less pain and more pleasure (Diener, 2000). Subjective well-being’s structure has been confirmed by several studies (Lucas, Diener, & Suh, 1996) and there is evidence that its components correlate strongly with each other (Stones & Kozma, 1985). Namely, life satisfaction judgments may be affected by the mood a person is at that time; and simultaneously his/her cognitive evaluations may influence how much pleasant and unpleasant emotions he/she experiences (Lazarus, 1991; Lucas, Diener, & Suh, 1996; Ortony, Clore, & Collins, 1988; Schwarz & Strack, 1991; Weiner, 1985). Still life satisfaction distinguishes itself from positive affect (‘feeling more pleasant emotions and moods’) and negative affect (‘feeling less pleasant emotions and moods’) since that both components go beyond their intersections (Andrew &

Withey, 1976; Diener, 1984, 2000; Diener et al., 1999; Lucas, Diener, & Suh, 1996). In what concerns children and adolescents research has shown that there is an association between life satisfaction and a positive emotional and social functioning (You, Furlong, Felix, Sharkey, & Tanigawa, 2008).

Life satisfaction judgments are comparisons that individuals do between their lives and various standards (e.g. needs and desires, other people, past circumstances) (Diener et al., 2012; Michalos, 1985). The difference between one's present circumstances and those standards are the basis of these judgments. When a person compares him/herself with a higher standard (upward comparison) his/her satisfaction decreases. On the other hand, when a person compares him/herself with a lower standard (downward comparison) his/her satisfaction increases (Diener et al., 1999).

Individuals base their judgments on their life circumstances and psychological state (e.g., mood) but they are also associated with the domains that they perceive as more important to their lives (Diener et al., 2012). Their culture and life structure condition the satisfaction judgment with the different life domains (Diener, 1984). Also the stimulus of the present situation, and the different individual and cultural values affect what information is considered and permanently available when individuals are evaluating their lives (Diener et al., 2012). Therefore, the importance people attribute to the several life domains differs depending on various factors (e.g. personality, cultural values). This affects what information individuals include in their judgments (Diener et al., 2012). Those that are less satisfied with their lives usually focus more on the domain of their lives that is worse and those who are more satisfied focus more on the domain that is better (Diener et al., 2002). Indeed the domains that have greater influence on subjective well-being are those that are more relevant to individuals (Andrews & Withey, 1976; Campbell et al., 1976). When individuals experience change across time in one of these more relevant domains their life satisfaction judgments also change accordingly (Diener et al., 2012).

Actually, if life satisfaction judgments tend to be stable across short periods of time, this stability tends to decrease during longer periods in face of life changes (Diener et al., 2012). Those who experience changes in important domains of their lives change more their life satisfaction judgments (e.g. widowhood or childbirth) than others (Anusic, Yap, & Lucas, 2014, Schimmack, Radhakrishnan, Oishi, Dzokoto, & Ahadi, 2002; Yap, Anusic, & Lucas, 2012). If at first life satisfaction judgments increase or decrease due to these events, after individuals tend to adapt, and their life satisfaction returns to its initial levels, exception made for long-term unemployment and severe disability (Diener et al., 2012). The importance of life

satisfaction to individuals' functioning in different domains has been reported in the literature, being positively associated with self-esteem (Diener, 1984), as well as with standard living and family life, work, health and community outcomes (Campbell, 1981). It can be influenced by short-term effects (e.g. priming), medium-term effects (e.g. living location) and long-term effects (e.g. personality) (Luhmann et al, 2012; Diener et al., 2012). Situational factors can also influence life satisfaction judgments and be the cause of undesired variability (Diener et al., 2012). The factors can be both personal such as health, neighborhood, quality of social relationships (e.g. marriage), work; or more collective factors such as community and societal circumstances (Diener et al., 2012).

Affect (moods/emotions) is an immediate response to what individuals are experiencing in their lives (Diener, 2000; Diener et al., 1999). Diener, Smith and Fujita (1995), supported by the most important emotion theories, classified 24 emotions according to negative affect and positive affect categories. The positive affect categories were joy (joy, happiness, contentment, and pride) and love (love, affection, caring, and fondness). The negative affect categories were fear (fear, worry, anxiety, and nervous), anger (anger, irritation, disgust, and rage), sadness (sadness, unhappiness, depression, and loneliness), and shame-guilt (shame, guilt, regret, and embarrassment).

Happiness is the predominance of positive affect over negative affect, in other words, more positive emotions and few negative ones (Bradburn, 1969; Diener, 2000). Some researchers consider that these constructs are independent (e.g. Bradburn, 1969; Lucas, Diener, & Suh, 1996) while others consider that they are opposite ends of the same construct (e.g. Russell & Carroll, 1999). It is unlikely that they are experienced both at the same time (Diener & Emmons, 1984). When positive and negative affect are used as state measures they tend to emerge as opposite ends however; if used them as trait measures, their antagonist relationship tends to become weaker and they tend to emerge as constructs that are more independent from each other (Ivens, 2007; Suh, Diener, & Fujita, 1996; Watson & Tellegen, 1999). According to Diener, Larsen, Levine and Emmons (1985) there is a *suppressive mechanism* regarding the frequency of both affects, i. e., positive and negative affect are likely to suppress each other (the higher the level of one affect the lower the other will be); and this is the reason why they are correlated if we consider specific time frames. In such cases it may be adequate to use a compound measure of these constructs, which can be an asset to understand the relationship of variables of different natures with subjective well-being (Diener, Suh, & Oishi, 1997; Ivens, 2007). This compound measure is usually denominated by happiness or affect balance however; one should bear in mind that information about each type of affect may be lost (Diener, 2000).

In other words, it is likely that the association between positive and negative affect is stronger when both of them are measured in a particular context and regarding a latest time frame (Diener, Suh, & Oishi, 1997; Ivens, 2007). Thus, both affects are independent when it is considered a longer time frame; and it may be due to the fact that average levels are a combination of frequency and intensity of each emotion. In particular, the antagonistic relationship between positive and negative affect is annulled by their positive relationship (Diener, 1984; Diener & Emmons, 1984; Diener et al., 1985).

Positive affect is usually associated with good situations and negative affect with bad situations (Reich & Zautra, 1981; Warr, Barter, & Brownbridge, 1983; Zautra & Reich, 1980). In the same vein, Solomon (1980) argues that when people lose something good that makes them unhappy and, on the other hand, when they lose something bad that makes them happy. People are prone to experience more positive affect unless something bad happens (Diener, 2000); and they also tend to be consistent across different situations, for example if someone is happy in a particular domain (e.g. leisure) odds are that he/she is also happy in other domain (e.g. work) (Diener et al., 1999). As such personality also plays an important role on affect since it sets the baseline for both positive and negative affect. Situations may influence the levels of affect in the short-term however; in long-term as people tend to adapt and restore their initial levels (e.g. marriage and widowhood) (Diener, 2000; Headey & Wearing, 1992; Winter, Lawton, Casten, & Sando, 1999).

We conducted two empirical studies in which we examine the impact of bullying (short and long-term) on well-being (subjective well-being, school/university distress and self-esteem) of all participant roles in bullying. We consider that it is important to include all roles in order to be able to compare their well-being and understand who is in greater risk and who is better adjusted. This is particularly important to intervention since it gives information about which roles should be our priority; and which ones can play an important role in intervention and supporting those who are most affected by bullying. Both studies are presented in the next two chapters.

## **CHAPTER 3 – EMPIRICAL EVIDENCE ON THE RELATIONSHIP BETWEEN BULLYING AND WELL-BEING**

### **1. THEORETICAL BACKGROUND**

As previously mentioned in the general introduction in an attempt to bridge the gap in studies that include positive measures, we have included dimensions related to subjective well-being as our dependent variables. We also included as dependent variables school distress (few studies included measures focused on contextually situated difficulties<sup>19</sup>) and self-esteem<sup>20</sup> (which is one of the most studied variables in the literature and can enable comparisons with previous findings).

The literature has established an association between bullying and well-being, namely, subjective well-being (life satisfaction and affect<sup>21</sup>), well-being at school (school distress) and self-esteem. As far as subjective well-being is concerned, there is evidence that bullies and victims have lower life satisfaction when compared to those who are neither bullies nor victims (Flaspohler et al., 2009) and are also less happy than defenders (Rigby & Slee, 1993). Defenders have also been described as less emotionally unstable than victims and the pro-bullying group (Tani et al., 2003).

In what concerns school distress it has been reported that victims experience problems such as school absenteeism (Rigby, 1996) and school dropout (Cornell et al., 2013), low academic results, have negative attitudes toward school, are not engaged in class and usually have negative experiences at school (Juvonen, Nishina, & Graham, 2000; Kochenderfer & Ladd, 1996; Lacey & Cornell, 2013; Nishina & Juvonen, 2005, Totura et al., 2014; Whitney & Smith, 1993). Bullies dislike school (Rigby & Slee, 1993), have poor school adjustment (Nansel et al., 2001) and are also at risk of dropping out of school (Byrne, 1994). Defenders usually like school more than victims and bullies (Rigby & Slee, 1993).

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<sup>19</sup> One example being the Correia and colleagues' study (2009).

<sup>20</sup> In our studies we considered self-esteem as the concept was defined by Rosenberg (1965) - "a favorable or unfavorable attitude toward the self" (p. 15).

<sup>21</sup> Although bullying studies have previously adopted the term mood we have adopted the term affect throughout the present thesis. We made this decision for the sake of consistency between all our empirical studies and subjective well-being theoretical background.

Regarding self-esteem, the literature seems to be consensual regarding victims' low self-esteem (Rigby & Slee, 1993; Salmivalli et al., 1999) and defenders' high self-esteem (Salmivalli et al. 1999; Rigby & Slee, 1993). Bullies are often studied in conjunction with assistants and reinforcers (pro-bullying group, e.g. Sutton & Smith, 1999; Tani et al., 2003) and there has been some controversial results regarding their self-esteem. Some authors found that bullies tend to have lower self-esteem than those that were not involved in bullying (O'Moore & Hillery, 1991), others that bullies did not have low self-esteem and that they did not differ from other participants in this concern (Olweus, 1989; 1993; Rigby & Slee, 1993), and others that they had "neither very high nor very low self-esteem" (Salmivalli et al., 1999). More recently, researchers have come to the conclusion that when compared with students who were not involved in bullying, bullies do have significant lower self-esteem levels (O'Moore & Kirkham, 2001).

The majority of bullying research has been mainly focused on those who are currently involved in this abusive experience (e.g. Gini, 2006). However, there has also been a growing interest in the study of those who were involved in bullying in the past and in its impact on their present lives. There is evidence that school bullying can also have consequences in adult life (Craig & Pepler, 2007) and has an important role in long-term psychosocial development (Ttofi, Farrington, Losel & Loeber, 2011). The retrospective research is a methodology that can be used to study if there is a connection between school bullying and negative consequences in later life (e.g. Smith, Singer, Hoel, & Cooper, 2003). In fact, retrospective studies have been one of the most chosen methodologies by researchers to investigate the long-term effects of this type of behavior (e.g. Gilmartin, 1987; Hugh-Jones & Smith, 1999; Matsui, Tzuzuki, Kakuyama, & Onglatgo, 1996; Schafer et al., 2004). The literature refers that adults tend to remember childhood victimization experiences with particular accuracy and that these memories tend to be stable (Brewin, Andrews, & Gotlib, 1993; Olweus, 1993; Rivers, 2001). Moreover, people are also likely to recall this type of memories accurately because they involve emotions that have an impact on well-being and because bullying seems to be an unexpected event in one's life (Berscheid, 1994; Brewin et al., 1993; Smith et al., 2003).

The studies that first addressed the subject of the long-term consequences of bullying retrospectively have shown that: many adult 'love-shy'<sup>22</sup> men were previous victims of bullying

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<sup>22</sup> "Love-shyness is a degree of inhibition and reticence with the opposite sex that is sufficiently severe to preclude participation in courtship, marriage, and family formation roles It is usually assumed that persons remaining "single-never-married" beyond a certain chronological age do so as a result of deliberate personal choice However,



(Gilmartin, 1987); former victims were depressed and had low self-esteem (Elliot & Shenton, 1999; Matsui et al., 1996; Olweus, 1993); were withdrawn, paranoid, aggressive and mistrustful of others (Elliot & Shenton, 1999; Hugh-Jones & Smith, 1999); were also victims in other stages of their educational path and in the workplace, were afraid of new situations and experienced problems in establishing new friendships (Elliot & Shenton, 1999; Smith et al., 2003); and also experienced difficulties with health and well-being (Rigby, 2003).

Schafer et al. (2004), conducted a cross-national retrospective study and also found that previous victims had lower self-esteem, were more lonely and had problems in keeping their friends. Rivers (2004) reported that a small percentage of homophobic bullying victims suffered from symptoms of posttraumatic stress; concomitantly they were more depressed, had more casual sexual partners; and some of them also experienced problems related with substance abuse (alcohol; prescription or nonprescription drugs). Moreover, the author also found that some participants had flashbacks and still felt psychologically distressed when they remembered their student years (Rivers, 2004). Storch et al. (2004) found an association between being teased as a child and loneliness and fear of being negatively evaluated, depression and anxiety.

Carlisle and Rofes (2007) also found a relationship between school bullying and anxiety, depression, as well as shame and relational difficulties on adult life. In the same year, Miller and Tracy (2007) reported an association between being a former victim (indirect aggression) and psychological adjustment on adulthood namely, perfectionism. Allison et al. (2009) found an association between school bullying and mental problems in adult life (anxiety, depression and emotional problems). They also found that previous victims were at risk of developing psychosomatic problems (Allison et al., 2009). Along the same lines, there are studies that confirm these previous findings, namely: McCabe, Miller, Laugesen, Antony and Young (2010) reported an association between being teased in school and anxiety disorders in later life; Ttofi and colleagues (2011) reported that being a victim in school is a risk factor for adult depression; and Boulton (2013) reported that bullying subtypes, specifically relational and social exclusion, predicted social anxiety.

Although most studies have been more focused on the victim's perspective there are also findings regarding other roles, such as bully-victims and bullies. Smith and colleagues (2003)

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the extent to which people actually choose to remain single throughout their lives heretofore has never been ascertained empirically.” (p. 468) (Gilmartin, 1987).

found that those who were simultaneously bullies and victims at school were even at more risk than pure victims, namely regarding workplace victimization. On the other hand, being a bully in school has been associated with later workplace harassment (Craig & Pepler, 2007; Pepler et al., 2006); criminal behavior and convictions in adulthood (Olweus, 1992); child and elder abuse and domestic violence (Craig & Pepler, 2007; Pepler et al., 2006); dating aggression and sexual harassment (McMaster et al., 2002; Pepler et al., 2005); substance use, and antisocial and violent behavior (Farrington, 1993; Olweus, 1991; Rigby, 2003). The long-term effects of school bullying may be as widespread as the short-term effects however; this is still a new avenue of research (Schafer et al., 2004). Moreover, retrospective bullying research has also been almost mainly focused on psychopathology, which allows us to continue to develop research in this area.

## **2. STUDY 1. THE SHORT-TERM IMPACT OF BULLYING ON INDIVIDUAL WELL-BEING.**

### **• RESEARCH PROBLEMS AND OBJECTIVES**

Do participant roles in bullying differ in the way they evaluate their lives? Do they differ in the way they are affected by bullying? To address these questions we conducted a study to investigate the short-term impact of bullying from a *participant roles in bullying approach*. We hope that this study could be a useful contribution to a greater understanding of involvement in bullying incidents and its association with well-being. Whereas bullying researchers have mainly focused on victims, bullies and more recently defenders (e.g. Huitsing, Snijders, Van Duijn, & Veenstra, 2014), the present study compared all participant roles in bullying regarding their subjective well-being, school distress and self-esteem. To our knowledge, possible differences regarding these variables have not been studied regarding all participant roles. Therefore, since more recent studies have not been looking into these specific possible differences considering all participant roles we believe that this study can help bridge this gap.

In this cross-sectional study we compared participant roles in bullying with regard to their well-being; namely, life satisfaction and positive affect (subjective well-being), school distress (well-being at school) and their self-esteem. We proposed hypotheses only for victims, bullies and defenders. Nevertheless, differences regarding assistants, reinforcers and outsiders were also examined. We expected that and in comparison with other participant roles in bullying: a) victims have lower life satisfaction and positive affect, higher school distress, and lower self-

esteem; b) bullies have lower life satisfaction and positive affect, higher school distress and moderate self-esteem; and that c) defenders have higher life satisfaction and positive affect, lower school distress and higher self-esteem. In sum, we intended to study how bullying affects the victims, bullies and defenders considering the dimensions of subjective well-being and we also aim to provide evidence focused on other roles. Moreover, we aimed to investigate assistants, reinforcers and outsiders' school distress and self-esteem, and also to test the previous findings regarding victims, bullies and defenders.

- **METHOD**

### Participants

Three hundred and eighty middle and junior high school students in the suburbs of Lisbon participated in the present study. For this study we selected grade levels 7, 9 and 11. Grade 7 is the first year of middle school, grade 9 is last year of middle school and grade 11 is the junior year of high school in Portugal. Similarly to previous studies, we selected grade levels that represented transition periods in which bullying incidents tend to be more frequent (e.g. Ahmed, Minnaert, van der Werf, & Kuyper, 2010; Birkett, Espelage, & Koenig, 2009; Pellegrini, 2002; Williams & Guerra, 2007) and that also covered a range of grade levels existing in that school. On the other hand, there are fewer studies that have both middle and high-school students as participants (Goldweber, Waasdorp, & Bradshaw, 2013). We excluded 29 students from the analysis because they were over age 18. The final sample was: 351 students from grades level 7, 9 and 11: 86 (24.5%) from grade 7, 142 (40.5%) from grade 9, 123 (35%) from grade 11. Their ages varied between 12 and 18 years ( $M= 15.52$ ;  $SD= 1.73$ ); 200 (57%) were female and 151 (43%) male.

### Procedure

The present study obtained consent from the school's headmaster, the school council, the teachers and the students' parents. In addition, participants themselves had the choice not to participate in the study. Participants were invited to participate in a study about school life and bullying experiences while they were in classes and in the presence of the researcher and their teacher. The researcher answered questions regarding the filling in of the questionnaire whenever it was necessary. The questionnaire was divided in two parts, one with demographic data, subjective well-being, school distress and self-esteem variables and the other with the bullying behavior assessment (see Appendix A). At the beginning of each part instructions were given and in the second part the following bullying definition was also provided to students::

“Now we will ask you some questions about your experience with bullying and it is important that you understand what this term means. Bullying behaviors are practiced by a person or a group, and repeated for some time with intention to hurt, threaten or intimidate another person, causing him or her to suffer. Bullying is different from other aggressive behaviors because it is practiced by someone stronger or with more power that leverages the power imbalance to make the victim feel helpless. There are several forms of bullying: hitting, pushing, grabbing, chasing, making fun of, joking, name calling, telling lies about the person, stop talking to and ignoring, setting aside and excluding from groups and games.”. Participants were asked not to view their colleagues’ answers. The anonymity of their answers was guaranteed and they took about 45 minutes to complete the questionnaires. At the end the researcher thanked participants for taking part.

### Measures

Students answered 6 self-report measures<sup>23</sup> presented in the next subsections. All scales were translated to Portuguese and were translated back to English by different persons with English proficiency to ensure the linguistic equivalence of the items. The items of each scale were randomized.

#### *Subjective Well-Being.*

We measured life satisfaction with the General Life Satisfaction Scale (Dalbert, Montada, Schmitt, & Schneider, 1984) (sample item: "I am satisfied with my life"). One item was dropped from the original subscale due to variability and internal reliability reasons (“I think that time will bring some more interesting and pleasant experiences.”). The Principal Component Analysis (PCA) indicated that a single factor accounted for 49.05% of the total variance of the six-item version of the scale ( $\alpha = .79$ ).

We measured positive affect with the Mood Level Scale of Underwood and Froming (1980). Two items were dropped from the original subscale due to variability and internal reliability reasons (“I’m not often really elated.”, reverse coded; “I’m not as cheerful as most

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<sup>23</sup>Since the scales we used were previously validated and had a solid background supporting them we used *a priori criteria* (Pestana & Gageiro, 2005) in the extraction of components in the Principal Component Analyses (PCA) of the present study. Some items were dropped to ensure that all items shared at least 30% of the variability of the common construct (communalities above .30) and to elevate the levels of internal reliability. Due to the characteristics of our data we used a less conservative cut-off point since considering only communalities above .50, as some authors advocate, would unviable some scales.

people.”, reverse coded). The PCA indicate that a single factor accounted for 63.90% of the total variance of the four-item version of the scale ( $\alpha = .81$ ).

Both scales constitute the Trait Well-Being Inventory developed by Dalbert (1992). The Life Satisfaction Scale developed by Dalbert et al. (1984) is equivalent to one developed by Diener, Emmons, Larsen, & Griffin (1985). All responses were given on a 6-point scale from 1 (‘totally disagree’) to 6 (‘totally agree’). Scores were computed by averaging across items, with higher scores indicating a stronger construct.

#### *School Distress.*

We measured school distress with the School Distress Scale of the Anxiety Questionnaire for School Students (Wieczerkowski, Nickel, Janowski, Fittkau, & Rauer, 1974) as used by Baumert, Gruehn, Heyn, Koller, and Schnabel (1997) (sample item: "I like to go to school.", reverse coded). One item was dropped due to variability and internal reliability reasons (“At school, there are only a few things I like.”). The PCA indicate that a single factor accounted for 56.41% of the total variance of the five-item version of the scale ( $\alpha = .81$ ). All responses were given on a 6-point scale from 1 (‘totally disagree’) to 6 (‘totally agree’). Scores were computed by averaging across items, with higher scores indicating a stronger construct.

#### *Self-esteem.*

We measured self-esteem with Self-Esteem Scale (Rosenberg, 1965) (sample: "On the whole I am satisfied with myself.”). Three items were dropped from the original subscale due to variability and internal reliability reasons (“I am able to do things as well as most other people.”; “I feel that I’m a person of worth, at least on an equal plane with others.”, “I feel that I have a number of good qualities.”). The PCA indicate that a single factor accounted for 47.35% of the total variance of the seven-item version of the scale ( $\alpha = .82$ ). All responses were given on a 6-point scale from 1 (‘totally disagree’) to 6 (‘totally agree’). Scores were computed by averaging across items, with higher scores indicating a stronger construct.

#### *Bullying Behavior.*

We measured behavior in bullying with the 50-item Participant Role Questionnaire (Salmivalli et al., 1996), with the exception of victim behavior which we measured with 4 items derived from Rigby and Slee’s (1993) 12-item measure of Dimensions of Interpersonal Relations (items: “I get picked on by other kids.”; “I get made fun of.”; “I get called names by other kids.”; “I get hit and pushed.”).

The Participant Role Questionnaire comprises 5 scales which measure tendencies to act as a bully (10 items; sample item: “I start bullying.”), bully’s assistant (4 items, sample item: “I assist the bully.”), bully’s reinforcer (7 items, sample item: “I come around to see the situation.”), defender of the victim (20 items, sample item: “I fetch the teacher in charge.”) and outsider (6 items, sample item: “I stay outside the situation.”). The PCA indicated that a single factor accounted for 63.76% of the total variance of the victim scale ( $\alpha = .81$ ). Two items were dropped from the bully subscale because the PCA indicated low levels of shared variance with the rest of the set (“I say to the others: “he/she is so stupid, it’s just right for him/her to be harassed.”; “I tell others not to be friends with the victim.”). A single factor accounted for 45.41% of the total variance of the eight-item version of the bully subscale ( $\alpha = .81$ ). The PCA indicated that a single factor accounted for 51.10% of the total variance of the bully’s assistant subscale ( $\alpha = .68$ ). No items were removed from this scale. Two items were dropped from the original bully’s reinforcer subscale because the PCA indicated low levels of shared variance with the rest of the set (“I incite the bully by shouting.”; “I say to the bully: Show him/her!”). A single factor accounted for 49.46% of the total variance of the five-item version of the bully’s reinforcer subscale ( $\alpha = .75$ ). Seven items were dropped from the original defender of the victim’s subscale because the PCA indicated low levels of shared variance with the rest of the set (“I try to arbitrate the differences by talking.”; “I am friends with the victim during leisure time.”; “I take revenge on the bully for the victim.”; “I say to the others that bullying is stupid.”; “I attack the bully in order to defend the victim.”; “I call the bullies names in order to defend the victim.”; “I say to the victim: “Don’t care about them.”). A single factor accounted for 47.94% of the total variance of the thirteen-item version of the defender of the victim’s subscale ( $\alpha = .91$ ). Three items were dropped from the original outsider subscale<sup>24</sup> because the PCA indicated low levels of shared variance with the rest of the set (“I don’t even know about the bullying.”; “I go away from the spot.”; “I pretend not to notice what is happening.”). A single factor accounted for 43.42% of the total variance of the four-item version of the outsider subscale ( $\alpha = .56$ ). All responses were given on a six-point scale ranging from one (‘never’) to six (‘very often’).

The scores of each scale (Participant Role Questionnaire + Victim Scale) were computed by averaging across items and then standardized. These standardized scores were used to assign

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<sup>24</sup> Given that outsiders are included in Participant Role Questionnaire we decided to proceed with the inclusion of this role in our analyses despite its low reliability. However, we will not interpret any possible differences between this particular role and the other five roles.

students to the participant role they belonged to. The assignment was made using an alternative scoring method (Sutton & Smith, 1999) to the one used by Salmivalli et al. (1996) that allowed assigning participants exclusively to one role. This adaptation is the ‘whole sample standardization method’ and is one of the methods that Sutton and Smith (1999) have analyzed. It is a method in which scores are standardized within the whole sample and not standardized by class as in Salmivalli et al. (1996) (Sutton & Smith, 1999). Sutton & Smith (1999) did not find significant differences between the two methods. Students were assigned to one role if: they scored above the mean in that scale and if they scored higher on that scale than on any of the other scales. If the difference between the highest score and the second highest score was less than 0.1 or if they did not score above the mean on any of the scales, students were assigned as no role. We did not consider students without a role in our analyses.

- **RESULTS**

Distribution of participants into participant roles in bullying

The distribution of participants into roles in bullying is presented in Table 1<sup>25</sup>.

Table 1. Frequency of participant roles in bullying, by sex

	Boys	Girls	Total
Victims	17	26	43
Bullies	19	16	35
Assistants	20	14	34
Reinforcers	31	18	49
Defenders	18	49	67
Outsiders	28	54	82

In addition to participant roles, sex was also used as an independent variable, because as indicated by chi-square tests, girls and boys were unequally distributed among participant roles in bullying,  $\chi^2(5) = 23.46$ ,  $p < .001$ . Assistants and reinforcers were significantly more prevalent among boys than girls (58.8% vs. 41.2%, adjusted residuals 2.0; 63.3% vs. 36.7%, adjusted residuals 3.1, for assistants and reinforcers data, respectively). Defenders were

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<sup>25</sup> From the total sample 70 participants were not assigned a specific role and therefore they were not included in our analyses.

significantly more prevalent among girls than boys (73.1% vs. 26.9%, adjusted residuals 3). This is in line with previous research that found that girls tended to assume more the role of defender and outsider, and that boys tended to assume more the role of bully, reinforcer and assistant (Salmivalli et al., 1996).

Before conducting the analysis, some tests were performed to assess normality of error distribution (Kolmogorov Test) and homoscedasticity of errors (Levene Test) (see Appendix B). Because both assumptions were not confirmed for any dependent variable, results were accepted only when univariate non-parametric tests (Kruskal-Wallis independent samples and pairwise comparisons) allowed arriving to the same conclusions (see Appendix C).

#### Differences in participant roles in bullying

To examine the effect of both sex and participant role in bullying on well-being, a 2 (Sex) X 6 (Participant Role in Bullying) MANOVA was conducted, with life satisfaction, positive affect, school distress and self-esteem as dependent variables<sup>26</sup>. Follow-up univariate tests were then conducted.

##### *The effect of sex.*

The multivariate test indicated a significant main effect of sex on well-being (Pillai's Trace = .05,  $F(4, 294) = 3.93, p = .004$ , partial  $\eta^2 = .05$ ). According to the univariate tests, the effect was significant in the case of school distress ( $F(1, 297) = 6.56, p = .011$ , partial  $\eta^2 = .02$ ) and self-esteem ( $F(1, 297) = 7.69, p = .006$ , partial  $\eta^2 = .03$ ) but not in the case of life satisfaction ( $F(1, 297) = 0.17, p = .678$ , partial  $\eta^2 = .00$ ) and positive affect ( $F(1, 297) = 0.76, p = .384$ , partial  $\eta^2 = .00$ ). Through pairwise comparisons it was found that boys scored higher on school distress and self-esteem ( $M = 3.26, SD = 1.14; M = 4.51, SD = 0.90$ ; respectively) than girls ( $M = 2.86, SD = 1.10; M = 4.16, SD = 0.99$ ). The non-parametric tests allowed arriving to similar conclusions.

##### *The effect of participant role in bullying.*

The multivariate test indicated a marginally significant main effect of participant role in bullying on well-being<sup>27</sup> (Pillai's Trace = .10,  $F(20, 1188) = 1.53, p = .065$ , partial  $\eta^2 = .03$ ). According to the univariate tests, the effect was significant in the case of positive affect ( $F(5,$

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<sup>26</sup> Given we considered life satisfaction, positive affect, school distress and self-esteem as indicators of well-being, we have opted conduct the analyses together.



297) = 2.47,  $p = .033$ , partial  $\eta^2 = .04$ ) and self-esteem ( $F(5, 297) = 2.66$ ,  $p = .023$ , partial  $\eta^2 = .04$ ) with parametric and non-parametric tests. The effect was not significant in the case of life satisfaction ( $F(5, 297) = 0.53$ ,  $p = .757$ , partial  $\eta^2 = .01$ ) and school distress ( $F(5, 297) = 1.50$ ,  $p = .190$ , partial  $\eta^2 = .03$ ). Means and standard deviations in all variables for all participant roles in bullying are shown in Table 2. The post-hoc group comparisons analysis (Tukey HSD) revealed that the only significant difference was found between victims and reinforcers, with the first group scoring lower on positive affect and self-esteem. The same differences were found with non-parametric tests.

*The interaction effect of sex  $\times$  participant role in bullying.*

There was not a significant interaction effect of sex X participant role in bullying (Pillai's Trace = .07,  $F(20, 1188) = 0.98$ ,  $p = .488$ , partial  $\eta^2 = .02$ ).

Table 2. Mean scores and standard deviations on all variables

	Victims		Bullies		Assistants		Reinforcers		Defenders		Outsiders	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Life Satis.	3.94	0.88	3.98	0.98	4.06	0.74	4.20	0.72	4.07	0.96	4.01	0.99
Positive Affect	4.03 <sup>a</sup>	1.09	4.46	0.88	4.46	0.74	4.74 <sup>b</sup>	0.76	4.48	0.95	4.33	1.02
School Distress	2.82	1.16	3.48	1.14	2.97	0.92	3.26	1.22	2.87	1.10	2.98	1.13
Self-Esteem	3.93 <sup>a</sup>	1.07	4.25	0.82	4.23	0.82	4.65 <sup>b</sup>	0.77	4.27	1.10	4.40	0.96

*Note.* Means in the same row with different superscripts differ significantly from each other.

## • DISCUSSION

This study intended to investigate if students involved in bullying differed in variables related to subjective well-being (life satisfaction and positive affect), school distress and self-esteem. We hypothesized that and in comparison with the other participant roles in bullying: h1) victims had lower life satisfaction and positive affect, higher school distress, and lower self-esteem; h2) bullies had lower life satisfaction and positive affect, higher school distress and moderate levels of self-esteem; and that h3) defenders had higher life satisfaction and positive affect, lower school distress and higher self-esteem. Although no specific hypotheses were formulated for the other participant roles we also examined differences in our dependent variables for them. We did not find any differences neither regarding bullies nor defenders. We also did not find differences between roles in what concerns life satisfaction and school distress.

Nevertheless, we were able to at least partially confirm our hypothesis regarding victims. We found that victims had lower self-esteem and lower positive affect than reinforcers. These results are in line with previous subjective well-being (Konu et al., 2002) and bullying research, that describes victims as having low self-esteem and being emotionally unstable (Hawker & Boulton, 2000; O'Moore & Kirkham, 2001; Rigby & Slee, 1993; Salmivalli et al., 1999; Tani et al., 2003). Previous studies have systematically showed that both victims and bullies are less adjusted than non-involved students (Nansel et al., 2001). Victims are usually described as being more depressed and anxious (Craig, 1998; Hodges & Perry, 1996; Olweus, 1993; Rigby & Slee, 1993; Salmon, 2000; Slee, 1995), feeling lonely and being absent from school (Kochenderfer & Ladd, 1996; Nansel et al., 2001; Rigby, 1996), having low self-esteem and suicidal ideas (Hodges & Perry, 1996; Olweus, 1993; Rigby, 1996; Rigby & Slee, 1993). On the other hand, bullies have been associated with anti-social behaviors such as vandalism, fighting, drinking alcohol, smoking or truancy (Byrne, 1994; Nansel et al., 2001; Nansel, Overpeck, Haynie, Ruan, & Scheidt, 2003; Solberg & Olweus, 2003).

We failed to find that bullies were less adjusted and that defenders were the most adjusted role, namely that they are less emotionally unstable (Tani et al., 2003), tend to like school (Rigby & Slee, 1993) and have high self-esteem (Salmivalli et al. 1999; Rigby & Slee, 1993). We may not have a decisive explanation to these results but we do consider that they deserve more careful consideration. The absence of significant differences may be due to psychometric weaknesses of the version of the scale used to measure the participant roles. However, it may be also possible that we are facing innovative results. Namely, if replicated these results could mean that neither the bullies are so poorly adjusted nor the defenders are so well adjusted as we

thought. In the case of bullies, this may be explained by the fact that they have the support from both assistants and reinforcers, which may in some way protect them from experiencing the negative repercussions of their behavior. In the case of defenders, perhaps the fact that they stand up against the pro-bullying group may cause some strain that may have some impact on their well-being. This may not be enough to compromise their adjustment but it may be enough so that no differences have been found between them and the other roles.

Most of these studies were conducted using the Olweus' classification of involvement in bullying. For this reason, we did not have specific expectations regarding reinforcers (and neither assistants nor outsiders). The assumption that there may exist differences between reinforcers, bullies and assistants can be made from the results from the present study. Our results may be due to the fact being a reinforcer may function as a potential protective factor, i.e., if children support the bully they won't be bullied and this may be reflected in their well-being. There is also the possibility that being a reinforcer may ensure children a differentiated social status among his/her peers, i.e., since reinforcers belong to the pro-bullying group they will have a higher peer status and this may potentiate their well-being levels. Nevertheless, these possible explanations do not account to why only the scores of reinforcers differed from the scores of victims. We consider that the scores of both bullies and assistants may not also differ from the scores of victims because they are more directly involved in bullying than reinforcers. The fact that reinforcers are less directly involved in bullying may allow them to simultaneously enjoy the protection of the bully and the group, and at the same time not suffer the most negative consequences of the disruptive behavior.

Our results may show that although previous research has included these three roles in the same group (pro-bullying group) there may be differences between them that should be investigated. Indeed Sutton and Smith (1999) argued that "progress in the measurement of bullying as a group process and the success of intervention strategies may depend on finding clearer distinctions between ringleader bullies and the children that help them or reinforce their behavior, using the Participant Role Scale approach to mobilize peer pressure and isolate ringleaders from their social support." (p. 97). In particular, Sutton, Smith and Swettenham (1999) reported that bullies had a better performance on social cognition tasks than assistants and reinforcers. Nevertheless, our results are not necessarily in the same direction of what they found since bullies do not have better scores than assistants and reinforcers. In this case reinforcers were the group with higher well-being scores.

Considering that sex differences have been reported in bullying and well-being literature, we explored if girls and boys differed in our dependent variables. We did not find interaction

effects between sex and participant role in bullying but we did find that girls and boys differed regarding two variables. We found that boys had higher school distress and self-esteem than girls. Both results confirm previous research since it has been reported that boys feel more distressed at school than girls (Correia & Dalbert, 2007) and that they usually have higher self-esteem than girls (Bachman, O'Malley, Freedman-Doan, Trzesniewski, Donnellan, 2011; Bolognini, Plancherel, Bettschart, & Halfon, 1996; Chubb, Fertman, & Ross, 1997).

- **CONCLUSIONS**

Taking into account our findings we consider that we can, to some extent, answer affirmatively to the questions raised on the research problems and objectives section. There are indeed some roles that differ in the way they evaluate their lives (emotionally) and how they are affected by bullying. In particular, we can conclude that at least victims and reinforcers differ regarding their well-being. Similarly to previous research we found that victims are at greater risk (Hymel et al., 2001) since they have the lowest well-being scores. Nevertheless, there are still unanswered questions regarding the negative association between bullying and well-being, namely the long-term effects of this relationship. Indeed the short-term consequences of bullying have been profusely studied in the literature however, it would be interesting to verify if the present results can be confirmed regarding retrospective bullying and also to further investigate if reinforcers are in fact in a privileged position when compared with bullies, or even assistants. We tried to address some of these issues in Study 2, which will be presented in the next section.

### 3. STUDY 2. THE LONG-TERM IMPACT OF BULLYING ON INDIVIDUAL WELL-BEING – A RETROSPECTIVE ANALYSIS.

- RESEARCH PROBLEMS AND OBJECTIVES

Study 1 has showed the relevance of examining all participant roles simultaneously. In particular, it allowed us to verify that maybe the pro-bullying group is not homogenous since reinforcers have emerged as the most adjusted role when no differences were found regarding bullies.

The general aim of Study 2 is bridging some gaps in research namely, to study bullying retrospectively and include positive measures that go beyond psychopathology. As mentioned before, retrospective studies have not studied possible long-term effects regarding all participant roles. However, we consider that it makes sense to examine the impact of bullying on adult life through the lens of the *participant roles in bullying approach*. It can enable possible comparisons between current and retrospective studies, and also because it allows to study other roles and thus have a more comprehensive perception of the reality of (retrospective) bullying. On the other hand, we consider that it is also relevant to investigate the impact of bullying on different constructs than the ones that have been studied until now, namely adults' subjective well-being or university distress.

In this sense, it is relevant to ask what happens to participant roles in bullying when they leave high school, in the long-term. Do previous participant roles in bullying differ in the way they evaluate their present lives? Do they differ in the way they are presently affected by the bullying incidents they experienced in the past? To address these questions we conducted a study to investigate the long-term impact of bullying based on the recollection of young adults about their experiences at school (retrospective study). We conducted a cross-sectional study where we compared previous participant roles with regard to their subjective well-being (life satisfaction and positive affect), well-being at the university (university distress) and self-esteem. Similarly to Study 1, we proposed hypotheses only for the most studied roles in the literature. However, since there was not empirical evidence on retrospective bullying regarding all the included measures we based our hypotheses also on research about the short-term effects of bullying. Namely, regarding well-being studies indicate that victims and bullies were less satisfied with their lives (Flaspohler et al., 2009), had lower happiness levels (Rigby & Slee, 1993), and had more problems in school (e.g. Kochenderfer & Ladd, 1996; Rigby, 1996; Rigby & Slee, 1993); defenders were more stable and enjoyed more school (Rigby & Slee, 1993; Tani et al., 2003). In regard to self-esteem, similarly to retrospective research, bullying studies that

investigate its short-term effects also evidence that victims tend to have low self-esteem (e.g. Rigby & Slee, 1993); on the other hand, defenders usually report higher self-esteem (e.g. Salmivalli et al. 1999). Bullies despite some controversy<sup>28</sup> tend to report moderate levels (but even so, lower levels than those of non-involved students) (O'Moore & Kirkham, 2001). Also as in Study 1, and to our best knowledge, although there were not findings in which we could base our hypotheses regarding previous assistants, reinforcers and outsiders, these roles were also examined. In this sense, and similarly to Study 1, we expected that in comparison with the other previous participant roles: h1) previous victims have lower levels of satisfaction and positive affect, higher levels of school distress, and lower levels of self-esteem; h2) previous bullies have lower levels of life satisfaction and positive affect, higher levels of university distress and moderate levels of self-esteem; and that h3) previous defenders have higher levels of life satisfaction and positive affect, lower levels of school distress and higher levels of self-esteem. We hope that this study could be a useful contribution to a greater understanding of involvement in bullying incidents and its association with well-being on adult life. In particular, understand how different participant roles are related to well-being in adulthood.

- **METHOD**

#### Participants

Two hundred and two undergraduate and graduate university students participated in this study: 168 (84.4%) were undergraduate and 31 (15.6%) were graduate students. Their ages varied between 18 and 29 years ( $M= 20.96$ ;  $SD= 2.07$ ); 138 (69%) were female and 62 (31%) male.

#### Procedure

Participants were invited to take part of a study about school life and bullying experiences while they were engaged in extracurricular activities, such as studying, or during leisure time. They had the choice not to participate in the study if they did not want to. The researcher answered questions regarding the filling in of the questionnaire whenever it was necessary. The questionnaire was quite similar to the one administered in Study 1 (see Appendix D); however, the bullying definition provided suffered some minor adaptations: *“In this part of the study, we ask you to remember your past school experiences, in particular situations related to the*

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<sup>28</sup> The contradictory results regarding this matter were discussed in more detail in the theoretical background section.

*phenomenon of bullying. Bullying behaviors are practiced by a person or a group, and repeated for some time with the intention to hurt, threaten or intimidate another person, causing him or her to suffer. Bullying is different from other aggressive behaviors because it is practiced by someone stronger or with more power that leverages the power imbalance to make the victim feel helpless. There are several forms of bullying: hitting, pushing, grabbing, chasing, making fun of, joking, name calling, telling lies about the person, stop talking to and ignoring, setting aside and excluding from groups and games.”*

The anonymity of their answers was guaranteed and they took about 25 minutes to complete the questionnaires. At the end the researcher thanked participants for taking part in the study.

## Measures

All the measures used in Study 2 were the same as those used in Study 1, although we used adapted versions of the school distress and bullying behavior measures. Students answered 6 self-report measures<sup>29</sup> presented in the next subsections. All scales were translated to Portuguese and were translated back to English by different persons with English proficiency to ensure the linguistic equivalence of the items. The items of each scale were randomized.

### *Subjective well-being*

We measured life satisfaction with the General Life Satisfaction Scale (Dalbert et al., 1984). Similarly to Study 1, one item was dropped from the original subscale due to variability and internal reliability reasons (“I think that time will bring some more interesting and pleasant experiences.”). The PCA indicated that a single factor accounted for 64.63% of the total variance of the six-item version of the scale ( $\alpha = .89$ ). We measured positive affect with the Mood Level Scale of Underwood and Froming (1980). No items were removed from the original scale. The PCA indicate that a single factor accounted for 56.85% of the total variance of the six-item version of the scale ( $\alpha = .84$ ). All responses were given on a 6-point scale from

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<sup>29</sup>Since the scales we used were previously validated and had a solid background supporting them we used *a priori criteria* (Pestana & Gageiro, 2005) in the extraction of components in the Principal Component Analyses (PCA) of the present study. Some items were dropped to ensure that all items shared at least 30% of the variability of the common construct (communalities above .30) and to elevate the levels of internal reliability. Due to the characteristics of our data we used a less conservative cut-off point since considering only communalities above .50, as some authors advocate, would unviable some scales.



1 ('totally disagree') to 6 ('totally agree'). Scores were computed by averaging across items, with higher scores indicating a stronger construct.

#### *University distress*

We measured university distress with an adaptation of the School Distress Scale of the Anxiety Questionnaire for School Students (Wieczerkowski et al., 1974) as used by Baumert and colleagues (1997). We adapted this scale to university experiences (sample item: "I like to go to the university.", reverse coded). Similarly to Study 1, one item was dropped due to variability and internal reliability reasons ("At university, there are only a few things I like."). The PCA indicate that a single factor accounted for 55.96% of the total variance of the five-item version of the scale ( $\alpha = .80$ ). Scores were computed by averaging across items, with higher scores indicating a stronger endorsement of the construct. All responses were given on a 6-point scale from 1 ('totally disagree') to 6 ('totally agree'). Scores were computed by averaging across items, with higher scores indicating a stronger construct.

#### *Self-esteem*

We measured self-esteem with Self-Esteem Scale (Rosenberg, 1965). No items were removed from the original scale. The PCA indicate that a single factor accounted for 47.87% of the total variance of the ten-item version of the scale ( $\alpha = .88$ ). All responses were given on a 6-point scale from 1 ('totally disagree') to 6 ('totally agree'). Scores were computed by averaging across items, with higher scores indicating a stronger construct.

#### *Previous Bullying Behaviour*

We measured previous bullying behavior with an adaptation of the measures that we used in Study 1. We adapted the Participant Roles Questionnaire and the victim scale and to past experiences (sample item "I got picked on by other kids."). The PCA of the previous victim scale indicated that a single factor accounted for 69.52% of the total variance of the previous victim scale ( $\alpha = .86$ ). Similarly to Study 1, two items were dropped from the previous bully subscale because the PCA indicated low levels of shared variance with the rest of the set ("I say to the others: "he/she is so stupid, it's just right for him/her to be harassed."; "I tell others not to be friends with the victim."). A single factor accounted for 58.32% of the total variance of the eight-item version of the previous bully subscale ( $\alpha = .87$ ). The PCA indicated that a single factor accounted for 43.25% of the total variance of the previous bully's assistant

subscale<sup>30</sup> ( $\alpha = .56$ ). No items were removed from this scale. A single factor accounted for 48.31% of the total variance of the five-item version of the previous bully's reinforcer subscale ( $\alpha = .82$ ). No items were removed from this scale. Six items were dropped from the original defender of the victim subscale because the PCA indicated low levels of shared variance with the rest of the set ("I try to arbitrate the differences by talking."; "I was friends with the victim during leisure time."; "I took revenge on the bully for the victim."; "I said to the others that bullying is stupid."; "I attacked the bully in order to defend the victim."; "I called the bullies names in order to defend the victim."). A single factor accounted for 53.78% of the total variance of the fourteen-item version of the previous defender subscale ( $\alpha = .93$ ). Similarly to Study 1 (although not exactly the same items), three items were dropped from the original outsider subscale because the PCA indicated low levels of shared variance with the rest of the set ("I didn't even know about the bullying."; "I pretended not to notice what is happening."; "I wasn't usually present."). A single factor accounted for 49.34% of the total variance of the four-item version of the previous outsider subscale ( $\alpha = .66$ ). All responses were given on a six-point scale ranging from one ('never') to six ('very often'). The assignment role method was the same that was detailed and used in Study 1.

## • RESULTS

Distribution of participants into previous roles in bullying

The distribution of participants into previous roles in bullying is presented in Table 3<sup>31</sup>

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<sup>30</sup> Given that assistants are included in Participant Role Questionnaire we decided to proceed with the inclusion of this role in our analyses despite its low reliability. However, we will not interpret any possible differences between this particular role and the other five roles.

<sup>31</sup> From the total sample 45 participants were not assigned a specific role and 2 participants failed to provide information regarding sex. For these reasons, they were not included in our analyses.

Table 3. Frequency and prevalence of previous participant roles in bullying

Previous roles	Males	Females	Total
Victims	11	22	33
Bullies	5	11	16
Assistants	7	12	19
Reinforcers	11	7	18
Defenders	8	21	29
Outsiders	33	7	40

As in Study 1, in addition to participant roles, sex was also used as an independent variable, because as indicated by chi-square tests, females and males were unequally distributed among previous participant roles in bullying,  $\chi^2(5) = 11.43$ ,  $p = .043$ . Previous reinforcers were significantly more prevalent among males than females (22.4% vs. 6.6%, adjusted residuals 2.9) and previous outsiders were significantly more prevalent among females than males (31.1% vs. 14.3%, adjusted residuals 2.2). This is in line with research that found that girls tended to assume more the role of defender and outsider, and that boys tended to assume more the role of bully, reinforcer and assistant (Salmivalli et al., 1996).

Before conducting the analysis, some tests were performed to assess normality of error distribution (Kolmogorov Test) and homoscedasticity of errors (Levene Test) (see Appendix E). Both assumptions are confirmed only for the analysis regarding life satisfaction. The results were accepted only when univariate non-parametric tests (Kruskal-Wallis independent samples and pairwise comparisons) allowed arriving to the same conclusions (see Appendix F).

#### Differences in previous participant roles in bullying

To examine the effect of both sex and previous participant role in bullying on well-being, a 2 (Sex)  $\times$  6 (Previous Participant Role in Bullying) MANOVA was conducted, with life satisfaction, positive affect, university distress and self-esteem as dependent variables<sup>32</sup>. Follow-up univariate tests were then conducted.

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<sup>32</sup> Given we considered life satisfaction, positive affect, school distress and self-esteem as indicators of well-being, we have opted to conduct the analyses together.

### *The effect of sex*

There was not a significant main effect of sex on well-being (Pillai's Trace = .06,  $F(4, 140) = 2.08$ ,  $p = .086$ , partial  $\eta^2 = .06$ ).

### *The effect of previous participant roles in bullying*

The multivariate test indicated a significant main effect of previous participant role in bullying on well-being (Pillai's Trace = .23,  $F(20, 572) = 1.71$ ,  $p = .028$ , partial  $\eta^2 = .06$ ). According to the univariate tests, the effect was significant in the case of life satisfaction ( $F(5, 143) = 3.98$ ,  $p = .002$ , partial  $\eta^2 = .12$ ), positive affect ( $F(5, 143) = 4.79$ ,  $p < .001$ , partial  $\eta^2 = .14$ ) and self-esteem ( $F(5, 143) = 3.97$ ,  $p = .002$ , partial  $\eta^2 = .12$ ). The effect was not significant in the case of university distress ( $F(5, 143) = 1.96$ ,  $p = .088$ , partial  $\eta^2 = .06$ ). However, relevant differences between previous participant roles in bullying regarding university distress were found via the non-parametric test (Kruskal Wallis).

Means and standard deviations in all variables for all previous participant roles in bullying are shown in Table 4. As far as life satisfaction is concerned the post-hoc group comparisons analysis (Tukey HSD) revealed that: previous bullies scored significantly lower on life satisfaction than previous assistants, reinforcers, defenders and outsiders (similar conclusions were reached with non-parametric tests; exception made to the differences between previous bullies and reinforcers, and between previous bullies and outsiders).

As far as positive affect is concerned the post-hoc group comparisons analysis (Tukey HSD) revealed that: previous victims scored significantly lower on positive affect than previous assistants and reinforcers (however, non-parametric tests did not confirm this result); and that previous bullies scored significantly lower on positive affect than assistants, reinforcers, defenders and outsiders (confirmed by non-parametric tests).

As far as self-esteem is concerned the post-hoc group comparisons analysis (Tukey HSD) revealed that: previous victims scored significantly lower on self-esteem than previous reinforcers (non-parametric tests confirmed this result); and that previous bullies scored significantly lower on self-esteem than previous assistants, reinforcers, defenders and outsiders (non-parametric tests only confirmed significant differences between previous bullies and assistants, and between previous bullies and reinforcers).

According to non-parametric tests previous bullies also had higher university distress than previous victims and reinforcers. In what concerns previous previous defenders, as mentioned above, the post-hoc tests show that they scored higher than previous bullies on all dependent

variables. However, non-parametric tests did not confirm the existence of differences regarding self-esteem.

*The interaction effect of sex X previous participant roles in bullying*

There was not a significant interaction effect of sex  $\times$  previous participant role in bullying (Pillai's Trace = .13,  $F(20, 572) = 0.98$ ,  $p = .490$ , partial  $\eta^2 = .03$ ).

Table 4. Mean scores and standard deviations on all variables

	Previous Victims		Previous Bullies		Previous Assistants		Previous Reinforcers		Previous Defenders		Previous Outsiders	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Life Satisfaction	3.94	0.96	3.49 <sup>a</sup>	0.72	4.41 <sup>b</sup>	0.77	4.60 <sup>b</sup>	0.79	4.40 <sup>b</sup>	0.70	4.29 <sup>b</sup>	0.97
Positive Affect	3.94 <sup>a,b</sup>	0.92	3.68 <sup>a</sup>	0.60	4.62 <sup>c</sup>	0.62	4.65 <sup>c</sup>	0.63	4.50 <sup>b,c</sup>	0.71	4.44 <sup>b,c</sup>	0.84
University Distress	2.26	0.78	3.06	0.72	2.29	0.74	2.36	1.04	2.45	0.78	2.52	0.98
Self-Esteem	4.37 <sup>a,b</sup>	0.93	4.17 <sup>a</sup>	0.77	4.98 <sup>b,c</sup>	0.70	5.10 <sup>c</sup>	0.59	4.89 <sup>b,c</sup>	0.66	4.81 <sup>b,c</sup>	0.72

*Note.* Means in the same row with different superscripts differ significantly from each other ( $p < .05$ ).

## • DISCUSSION

This study intended to investigate if adults who were previously involved in bullying in school differed, at the present moment, in terms of subjective well-being, university distress and self-esteem. We hypothesized that and in comparison with the other previous participant roles in bullying: h1) previous victims had lower satisfaction and positive affect, higher university distress, and lower self-esteem; h2) previous bullies had lower life satisfaction and positive affect, higher school distress and moderate levels of self-esteem; and that h3) previous defenders had higher life satisfaction and positive affect, lower school distress and higher self-esteem. Although no specific hypotheses were formulated for the other previous roles we also examined differences in our dependent variables for them. We did find differences regarding all roles for which we hypothesized, and we also found differences between these roles in what concerns all dependent variables, with exception to university distress.

We were able to at least partially confirm our hypothesis regarding victims. Similarly to Study 1, we found<sup>33</sup> that previous victims had lower self-esteem than previous reinforcers (h1). This result is in line with previous research that describes previous victims as having low self-esteem (Schafer et al., 2004). We were also able to confirm in great extent our hypothesis regarding bullies and partially confirm our hypothesis regarding defenders.

We also found that previous bullies had lower life satisfaction than previous defenders; lower positive affect than previous reinforcers, defenders and outsiders; lower self-esteem than previous reinforcers (h2, h3)<sup>34</sup>. To our knowledge previous research only studied the well-being of previous victims however, the results regarding previous bullies are not surprising if we consider previous bullying research that described (present) bullies as being maladjusted (Nansel et al, 2001). It has been found that they are: less satisfied with their lives than students that are not directly involved in bullying (Flaspohler et al., 2009), less happy than and more unstable than defenders (Rigby & Slee, 1993; Tani et al., 2003), and as more likely to engage in anti-social behavior (e.g. Nansel et al., 2001; Nansel et al., 2003). They also have been described

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<sup>33</sup> We only interpreted the results that were reached with both parametric and non-parametric tests.

<sup>34</sup> As mentioned earlier, differences between assistants and the other roles were not interpreted due to reliability problems related to this scale.

has having moderate self-esteem (Salmivalli et al., 1999). On the other hand, previous retrospective bullying studies also found an association between being a bully in school and being a criminal in adult life and other types of aggressive behavior (Olweus, 1992; Pepler et al., 2006). Therefore, it's not unreasonable to assume that these associations may be related to their well-being.

In this sense, the present study shows that both previous victims and bullies have lower well-being when compared to other previous participant roles, previous defenders included. We were able to find differences between all the roles for which we have presented hypotheses regarding life satisfaction, positive affect and self-esteem. Therefore, we were able to partially confirm our hypotheses.

We did not present specific expectations regarding previous reinforcers (and neither assistants nor outsiders). However, our results may evidence, similarly to results from Study 1, that although previous research has included these three roles in the same group (pro-bullying group) there may be differences between them that should be investigated. Indeed Sutton and Smith (1999) previewed that future research could discover more differences between the pro-bullying roles. Similarly to Study 1, previous reinforcers were the group with higher well-being scores. They differed significantly from previous victims and previous bullies. It is possible that reinforcers may enjoy some kind of protection or higher social status when they were at school, and that can prevent young adults that assumed this role in their adolescence from experiencing negative consequences in the present time. However, this does not explain why previous bullies do not also enjoy from the possible prolonged effects of this protection or social status, or why previous assistants do not also stand out. On the contrary, the well-being of previous bullies is one of lowest. The argument of the degree of involvement in bullying incidents becomes thereby more likely since previous bullies have lower well-being while previous reinforcers have higher well-being as young adults. The fact that reinforcers are less directly involved in bullying may allow them to simultaneously enjoy the protection of the bully and the group, and at the same time not suffer the most negative consequences of the disruptive behavior.

We also examined whether females and males differed in the present study since sex differences have been reported in the literature. However, we did not find neither main effects nor interaction effects between sex and previous participant role in bullying regarding any variable.



- **CONCLUSIONS**

Taking our findings into account we consider that we are able to find empirical evidence that may help answer the questions raised on the research problems and objectives sections. There is some evidence that young adults who were previously involved in bullying do evaluate their lives differently from each other, to some extent. There is also evidence that previous bullying experiences may have impact on their self-esteem. Similarly, to Study 1 previous bullying experiences seem to have greater impact on previous victims' present emotions and self-concept; and in this sense, results regarding victims (Study 1) were replicated in the present study. On the other hand, previous bullies seem to be affected at both cognitive and emotional level, and also in their self-concept.

In general, the results of this study indicated that both previous victims and bullies have lower subjective well-being and worse self-esteem than the other previous participant roles in bullying. These results are consistent with previous research that showed that retrospective bullying is negatively associated with adjustment in adult life, specifically, considering previous victims (e.g. Elliot & Shenton, 1999; Matsui et al., 1996; Olweus, 1993). Nevertheless, this study also included other previous roles and for that reason we were able to go beyond what was already studied and to arrive to some new findings. In particular, we were able to find that although previous bullies were not at any particular risk in Study 1, they were in the present study. Indeed, this may be an indicator that bullying affects them mostly in a long-term. In other words, bullies do not seem to be affected by their behavior when they are in school however, that may not happen when they grow. This argument and the strengths and limitations of both studies will be further explored in following section of this chapter.

- **GENERAL CONCLUSIONS REGARDING STUDY 1 AND STUDY 2**

Major findings and implications

Our results are in accordance with previous research that showed that bullying is negatively associated with well-being. However, since we found significant differences regarding both present and previous participant roles, these findings allowed us to go

beyond what has been reported in the literature and deepen the knowledge about the relationship between bullying and well-being.

We consider that both studies make important contributions to research since their methodology and results are in some aspects innovative. First, we examined simultaneously all participant roles (present and previous) regarding different well-being outcomes. To our best knowledge the junction of these two factors had never been studied before.

Second, we adapted the Participant Role Questionnaire to study previous bullying. To our knowledge this is the first time that other previous participant roles, besides previous victims and bullies, were studied and simultaneously.

Third, we included several well-being indicators as dependent variables, in particular both subjective well-being dimensions (life satisfaction and positive affect). This allowed us to confirm some of the previous findings regarding victims; and also to study for first time, to our best knowledge, the well-being of the previous bullies and other previous roles.

Fourth, the results seem to sustain the evidence that the pro-bullying roles differ between them and may not be a homogeneous group. We found that in both studies reinforcers had the highest well-being scores and the fact that reinforcers stand out as being the more adjusted group is, as mentioned previously, a surprising result; taking into account the literature that usually describes defenders as more adjusted (Rigby & Slee, 1993; Tani et al., 2003). We also consider that the fact that defenders were not the most adjusted group deserves greater attention since this has been reported in various previous studies. Nevertheless, these studies contribute to potential new perspectives about reinforcers and we consider that their role in bullying incidents should be further investigated in future studies and taken into account in intervention programs.

Fifth, the indicators of well-being in which (present and previous) victims and reinforcers differentiate themselves were more related to their self-esteem and emotional evaluations than with cognitive ones. This may evidence that bullying affects especially victims' emotions and feelings, which may be useful for planning and designing of interventions. Sixth, previous bullies differed from other previous roles in all their evaluations (cognitive, emotional and self-esteem). This may indicate an important distinction between bullies and victims that deserves more attention.

Seventh, and following the sixth point, victims seem to be affected by bullying incidents in the short and long-term; and bullies, however, may only experience the

negative consequences of their behavior as they grow. We consider that these findings point to a possible differentiated impact of bullying on victims and bullies, which is important and should be taken into account in intervention programs.

### Limitations

Despite both studies made important contributions and the relevant questions raised by them some limitations such the cross-sectional design or the nature of our sample, and the exclusive use of self-report measures have also to be acknowledged. The cross-sectional design of the present studies and the nature of our samples do not allow us to claim any causal relationships or to generalize these results. However, we interpreted our results taking into account research that advocates that it is more likely that bullying influences well-being and not otherwise. Even so, in future studies there should be an effort to include more representative samples and use longitudinal designs to overcome these limitations.

In the present studies we used Participant Role Questionnaire solely as a self-report measure, which may have had implications in the categorization of participant roles. Students may have been assigned to different roles than they would have been if we (also) used peer nominations. For example, bullies and their followers may have been reluctant to admit that they exhibited bullying behaviors as a result of social desirability. Sutton and Smith (1999) mention that “four of five children nominated as a Bully, a Reinforcer, or an Assistant (the roles involved in bullying others) nominated themselves as a Defender, Outsider, or Victim, with most of them claiming to be Defenders (...).” (p. 105). Although, the exclusive use of self-report measures may indeed be considered a shortcoming of our studies this type of measures can also be very useful since it can allow access to relevant data regarding students’ “awareness of their own behavior” (Kochenderfer-Ladd & Waldrop, 2001; Menesini et al., 2009, p. 129). We therefore recommend that future studies include self and peer-report measures as used by Salmivalli and colleagues (1998) in order to avoid shared variance and to, as suggested by Sutton and Smith (1999), compare the results obtained with both methods.

We also have to consider specific features of Study 2. The questionability of recollections of bullying, the fact that no specific life-span or the fact that the chronicity of incidents was not taken into account can be shortcomings. For example, as an alternative interpretation of retrospective data, it is argued that individuals may continue to exhibit the same characteristics (e.g. depression) when they are adults as

they exhibited when they were younger, not because of the bullying incidents (e.g. teasing) they experienced in childhood but due to the stability of those same characteristics across time (Storch et al., 2004). It has also been mentioned that there is a possibility that the recollection of bullying incidents might be affected by the individuals' current mood; that contrary to what is suggested by authors that support this methodology, emotional items are not more accurately remembered than non-emotional ones, therefore the fact that bullying is an emotional occurrence is not something that facilitates its accurate recollection; that adults were not accurate when remembering their adolescence, suggesting that they may have reevaluated their experiences (Allison et al., 2009; Offer, Kaiz, Howard, & Bennett, 2000). However, as mentioned previously in this thesis there is also evidence that childhood victimization recollections are accurate; and the fact is that we were able to find similar results to those found by previous retrospective bullying research, which evidences some consistency.

Having established that there is a negative relationship between bullying and well-being in the short and long term, it makes sense to question why this happens. Specifically, why participant roles in bullying differ regarding their subjective well-being, school distress and self-esteem? We consider that trying to answer this question can be a great contribution for the study of involvement in bullying and its consequences. Indeed the short-term consequences of bullying have been profusely studied in the literature, and more recently the number of studies on the long-term consequences of bullying has also grown. Nevertheless, there are still few studies that address the mechanisms through which bullying erodes well-being. For these reasons, in the next chapter we will explore the role of the *need to belong* as a mechanism that may help explain precisely this relationship.

## PART II – BULLYING AND THE NEED TO BELONG

### CHAPTER 1 – CONCEPTUAL FRAMEWORK ON BELONGING, JUSTICE AND SOCIAL SUPPORT

As mentioned in the previous chapter there are still few studies that investigated the mechanism through which bullying damages the well-being of those involved in it. According to DeWall, Baumeister and Vohs (2008) “human physical and psychological well-being is heavily dependent on positive and lasting relationships with others. Therefore, people should be motivated to seek social acceptance, and social acceptance should lead to positive outcomes. Consistent with that view, the existing theoretical and empirical work in the social belongingness literature has been close to unanimous in finding that social acceptance causes positive outcomes, whereas rejection produces negative outcomes (e.g. Baumeister & Leary, 1995; Twenge et al., 2001; Williams et al., 2000).” (p. 1379). People want to belong and to develop and preserve social bonds (Hogg & Abrams, 1988; Sedikides & Brewer, 2001; Tyler & Blader, 2003).

Maslow (1971) was one of the first authors to draw attention to the importance of belonging, followed years later, by Baumeister and Leary (1995) that proposed the fundamental drive of the *need to belong*. The *need to belong* is a universal motivation ‘to form and maintain meaningful and lasting relationships’ (Baumeister & Leary, 1995). When people cannot meet this need that may have consequences at the behavioural, cognitive and emotional levels, but also to their health (Baumeister, DeWall, Ciarocco, & Twenge, 2005; Baumeister & Leary, 1995; Buckley, Winkel, Leary, 2004; Cacioppo, Hawkey, & Berndtson, 2003; Twenge, Baumeister, Tice, & Stucke, 2001). In this context, we consider that the *need to belong* (Baumeister & Leary, 1985) may provide a plausible explanation to why bullying is so detrimental to well-being (as shown in Study 1 and Study 2). Since bullying is a behavior that causes exclusion from the peer group it can be a blatant threat to this need (Cassidy, 2009; Feigenberg, King, Barr, & Selman, 2008; Hawker & Boulton, 2001; Juvonen & Gross, 2005) and that may lead to negative consequences. To our best knowledge there are no studies that empirically tested this argument before. We propose that the threat may be reflected on both justice perceptions and perceived social support since both are associated with belonging (e.g. Lind & Tyler, 1988; Umlauft et al., 2009). In particular,

it is proposed that victims are likely to feel that they aren't respected in the group (and therefore, perceive others as less just) and also perceive they are less supported. In turn, it is expected that these perceptions may have a negative impact on their well-being (Baumeister & Leary, 1995; Hale, Hannum, & Espelage, 2005; Tyler, 1994; Tyler, DeGoey, & Smith, 1996; Tyler & Lind, 1992). In the present chapter we discuss literature on the *need to belong* and on both indicators (justice perceptions and perceived social support), and also present the empirical findings regarding the argument that bullying is a threat to this need.

## 1. SENSE OF BELONGING, JUSTICE PERCEPTIONS AND BULLYING

When people are treated with respect and dignity, their sense of belonging and status increases. When they are deprived from belonging or excluded that is negatively associated with their well-being and affects different domains of their life, such as cognitions, behaviours or emotions (DeWall et al., 2011; Gouveia-Pereira, 2008; Lind & Tyler, 1988). According to the *group-value model*, it is important to belong to a group since it has psychological rewards (Lind & Tyler, 1988; Tyler, 1989). These groups can be family, friends, work groups, or larger groups such as the legal-political system of a country (Tyler, 1989). As such, belonging influences how people perceive themselves socially, helps them to evaluate their status and to define themselves. In this sense, self-worth is closely related to the groups people belong to (Tyler & Blader, 2003). They are a source of self-validation, emotional support and material resources (Festinger, 1954; Tyler, 1989).

In fact, belonging is associated with higher levels of self-esteem (Knowles, Lucas, Molden, Gardner, & Dean, 2010) and several studies have reported the relationship between perceiving that one is included and self-esteem (e.g. Leary, Kowalski, Smith, & Phillips, 2003). On the other hand, rejection tends to be associated with decreased self-esteem, more negative affect and less positive affect (Bourgeois & Leary, 2001; Leary, Koch, & Hechenbleikner, 2001; Leary, Tambor, Terdal, & Downs, 1995). According to the *sociometer theory* the extent to which self-esteem varies can be a stimulus for individuals to regulate their interpersonal relationships and is also informative of how accepted or rejected they are by others (Leary, 1995; Leary & Baumeister, 2000; Murray, Holmes, & Collins, 2006; Knowles et al., 2010). When belonging is threatened that reflects on lower levels of self-esteem (Leary, 2005).

Although both feelings are associated, belonging and self-esteem needs are different from each other and individuals regulate them differently. When individuals' self-esteem is threatened they tend to make indirect self-affirmations in a different domain than the source of the threat. This has been found to be an effective strategy to respond to the original threat. However, when individuals' self-esteem is threatened through an attack to their sense of belonging they tend to make "self-affirmations directly relevant to the source of the threat" (p. 183) (Knowles et al., 2010). This strategy was actually found to be more effective in restoring self-esteem after a belonging threat compared to indirect self-affirmations (Knowles et al., 2010). It should then be stressed that threats to belonging cannot be addressed indirectly and as the authors write "there's no substitute for belonging" (p. 175) (Knowles et al., 2010). This evidence can help explain why it is rewarding to be accepted and why it is prejudicial to be rejected by groups (Cartwright & Zander, 1953; Schachter, 1951; Tyler, 1989).

Those who are accepted tend to be happier, healthier and live longer. On the other hand, rejection is associated with future adjustment problems (e.g., social maladjustment; Miller-Johnson et al., 2002; Parker & Asher, 1993; Rubin, Bukowski & Parker, 2006). As such, people have the need to avoid being rejected and to be accepted by relevant others (Baumeister & Leary, 1995; Fiske & Yamamoto, 2005; Sommer & Rubin, 2005). Although there is consensus that being rejected by relevant others and social groups leads to maladjustment (e.g. Sentse, Lindenberg, Omlée, Ormel, & Veenstra, 2010), it is important to note some individual differences on this adjustment. In fact, people share the need to be accepted, however, they differentiate themselves in how they process information regarding being rejected and accepted. Based on their experience, people can adopt behaviours and coping strategies to avoid being rejected or to ensure that they are accepted (Romero-Canyas & Downey, 2005). As such, the experience of chronic rejection influences people's reaction to social environment, which is typically called the *sensitivity to rejection* (Downey & Feldman, 1996). It has also been described as a defensive motivational system since its activation occurs before signs of potential rejection, and triggers defensive actions against the threat of being rejected. In an attempt to avoid rejection, individuals may even sacrifice their own personal objectives. This system is therefore often associated with maladaptive reactions that in turn lead to more rejection and exclusion. Those who are more sensitive to rejection tend to anxiously expect it in social interactions, which ultimately predispose them to find evidence of potential rejection (Romero-Canyas &

Downey, 2005). The sensitivity of children to rejection can increase over time as a consequence for being rejected by their peers. And alongside it is associated with children's maladjustment namely increased social avoidance, loneliness, and ultimately rejection itself (London, Downey, Bonica, & Paltin, 2007; Romero-Canyas & Downey, 2005). The *sensitivity to rejection* is also associated with an increase of hostile reactions to rejection (e.g., emotional distress) and with victimization and aggression (Downey, Lebolt, Rincon, & Freitas, 1998; Romero-Canyas & Downey, 2005). In fact, both aggressive and shy personalities have been associated with rejection; however, as mentioned previously in this thesis there are also studies that show that being rejected from a group also depends on what is normative on that group (Boivin et al., 1995; Stormshak et al., 1999; Wright et al., 1986).

In childhood and adolescence, peer acceptance is very important because it positively influences academic development, social functioning and psychological well-being (Nangel & Erdley, 2001; Wentzel, 2009). It is within the peer group that feelings of belonging arise (Brown, Eicher, & Petrie, 1986; Gouveia-Pereira, Pedro, Amaral, Alves-Martins, & Peixoto, 2000), and this can be especially evident in the school setting. In fact, school is a particularly relevant context of development that can influence a healthy growth (Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004). While belonging to school is associated with more prosocial behaviours and with less antisocial behaviours (McNeely, Nonnemaker, & Blum, 2002); social exclusion diminishes prosocial behaviors (Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007). In order to exhibit prosocial behaviors people have to perceive that they belong to community where there are bonds of affection and mutual aid that bind its members. When someone is rejected it is less likely that a person will behave prosocially because social exclusion decreases trust and empathy (Twenge et al., 2007). In the same sense, perceptions of belonging to school is associated with low risk for misbehavior, school absentism and abusing substances; and on the other hand, perceptions of not belonging to school and unsafety are associated with detrimental effects (e.g. externalizing behaviors, school absentism and other related school problems) (Hawkins, Catalano, & Miller, 1992; Wilson, 2004). Moreover, "social exclusion can thwart people's powerful need for social belonging." (p. 729) (DeWall, Maner, & Rouby, 2009) and therefore being excluded threatens this need (Baumeister, Brewer, Tice, & Twenge, 2007; Baumeister & Leary, 1995). Since bullying is a mechanism of social exclusion it can



also be considered as a threat (Cassidy, 2009; Feigenberg, King, Barr, & Selman, 2008; Hawker & Boulton, 2001; Juvonen & Gross, 2005).

In classes with more bullying incidents there were lower levels of belonging (Goldweber et al., 2013) and on the other hand, researchers have found an association between lower victimization levels and belonging to school (O'Brennan & Furlong, 2010); reinforcing the negative impact of bullying to the self and to the relationships with significant others (Pepler, Jiang, Craig, & Connolly, 2008). In sum, bullying hinders belonging to school (Morrison, 2006), prejudices the status of victims in the peer group and also affects their sense of belonging to a social network (Hawker & Boulton, 2001; Salmivalli et al., 1996; Seeds, Harkness & Quilty, 2010).

Bullying is unjust behaviour towards others because there is an imbalance of power between the bully and the victim, it aims to cause harm and more importantly is an unprovoked aggression (Olweus, 1993; Terranova, Morris, & Boxer, 2008). As an interpersonal experience it can influence the perception about how someone is treated by others and the perception of justice in these relationships (Tyler & Blader, 2003). In fact, the way people treat each other not only influences individual perceptions about significant supportive relationships but also influences individual justice perceptions (Tyler, 1988, 1994; Tyler & Blader, 2003; Tyler & Huo, 2002). If someone is treated justly that is a sign of respect; on the other hand, if someone is treated unjustly that signals disrespect and that he or she is a marginal in the group (Tyler, 1994; Tyler, DeGoey, & Smith, 1996; Tyler & Lind, 1992). However, just treatment is also a sign of pride (how much someone can be proud for being a member of the group). The position in the group (respect) and the position of the group (pride) are therefore both informative of status and are associated with high self-esteem. Even though, self-esteem is more influenced by respect than pride (Tyler et al., 1996). When individuals are treated with respect and justice they tend to feel valued and included (Lind & Tyler, 1988).

According to the *dual pathway model of respect* (see Huo & Binning, 2008, for review) status (being liked) and inclusion (being valued) are both dimensions of respect. The treatment a person receives from group authorities and peers is informative of how much that person is liked and valued in the group. If someone is justly treated by group authorities that means that one is respected and valued, which increases self-esteem and social involvement (Huo, Binning, & Molina, 2010). In order to be

perceived as just group authorities have, in turn, to be “neutral, trustworthy and benevolent” (p. 3) (Huo et al., 2010; see Tyler & Lind, 1992, for review).

In this sense, justice helps to understand the relationship between people and groups, for instance, why people react badly to injustice and how justice promotes cooperation and engagement in a group (Tyler & Blader, 2003). There are, however, still few studies that investigated bullying considering a social psychology of justice perspective (e.g. Correia & Dalbert, 2008; Donat, Umlauf, Dalbert, & Kamble, 2012; Morrison, 2002, 2006). Correia and Dalbert (2008) studied the relationship between (personal) *belief in a just world* and bullying and found that the students who had a stronger a personal *belief in a just world* tended to bully others less. These students also tend to perceive school as more just which is associated with lower levels of school distress and bullying (Correia & Dalbert, 2007; 2008). According to the authors these students avoid bullying others because since it is unjust behaviour, and as such it is a violation of the personal contract that postulates “only by acting justly can individuals rely on others being just to them (Lerner, 1980).” (p. 252) (Correia & Dalbert, 2008).

Following the study developed by Correia and Dalbert (2008), Donat and colleagues (2012) explored the mediating role of teacher justice in the relationship between *belief in a just world* and bullying. Namely, they found that students who perceived the world as more just tended to perceive teachers also as more just, and thus teacher justice mediated the relationship between perceiving the world as more just and to bully others less (Donat et al., 2012). Based on the evidence that teacher justice promotes belonging (Umlauf et al., 2009), the authors proposed that it can also be a motivation to adopt just behavior at school (Donat et al., 2012). When students perceive just and respectful treatment by teachers they feel more valued and therefore, more included (Bude & Lantermann, 2006; Lind & Tyler, 1988; Umlauf et al., 2009). In turn, both justice perceptions and belonging are associated with the compliance to rules (Donat et al., 2012): individuals who feel that they belong to a group feel they ought to obey more its rules (Emler & Reicher, 2005); and, students who perceive that they are treated with justice at school tend to legitimize more its authorities (Gouveia-Pereira, Vala, Palmonari & Rubini, 2003). In this sense, Donat et al. (2012) argue that the perception that students have of how just their teachers are can help explain their bullying behavior. When students perceive they live in a just world and that teachers treat them with justice they tend to adopt just behaviors, and thereby not to bully others (Donat et al., 2012).

## 2. PERCEIVED SOCIAL SUPPORT AND BULLYING

- **Conceptualization**

Although our last empirical study is focused on perceived social support we consider that it is important to at least address the distinction between received and perceived support. Received support consists of intended and observable behavior that can be measured (Ditzen & Heinrichs, 2014). Perceived social support can be defined as “an individual’s perceptions of general support or specific supportive behaviors (available or acted on) from people in their social network, which enhances their functioning or may buffer from adverse outcomes” (p. 232) (Malecki & Demaray, 2002, 2003). According to Ditzen and Heinrichs (2014) “interestingly, perceived support appears to be only weakly connected to actual support receipt and also seems to be a much better predictor of health relevant outcomes than received support (e.g., Cohen & Hoberman, 1983).” (p. 151), which justifies our decision to focus on perceived support rather than on received support.

Tardy (1985) suggested that social support can be conceptualized according to five dimensions: direction, disposition, description or evaluation, content and network. These five dimensions are not comprehensive but they address the foundations of social support and are interdependent (Tardy, 1985). The first dimension - direction - concerns the fact that social support can be given and received and the second one - disposition – involves the fact that social support can be available (quantity or quality of the support that is accessible) or enacted (i.e., effectively used). The dimension of description or evaluation concerns the fact that social support can be merely described or it can be evaluated (measurement of the satisfaction with social support). These components are distinct from each other but can be studied simultaneously. The fourth dimension is content (it varies according to the situation), which includes the four types of social support (classification according to two categories – tangible/instrumental and emotional/esteem-enhancing support) proposed by House (1981): emotional (love, trust, empathy), instrumental (time, resources), informational (information, advice), appraisal (evaluative feedback). There is no consensus regarding the terminology used to describe the types of social support (Malecki & Demaray, 2003), however this will be the terminology adopted throughout this thesis. It should also be noted that this

classification might not be comprehensive, though it includes most types of social support (Tardy, 1985). Finally, the fifth dimension is the network, which is the social dimension of social support and includes those that are related to the individual (in the case of children these can be parents, teachers, classmates, etc.) (Malecki & Demaray, 2003; Malecki et al., 2008; Tardy, 1985). There are studies that are only focused on the existence of a network and others that investigate the characteristics of those belonging to the network (Tardy, 1985).

Most studies measured the perception of overall social support rather than the perception of different types of support (i.e., content; Malecki & Demaray, 2003). This may not be the best choice given that different types of support are usually related to particular sources (network) and to particular outcomes (Malecki & Demaray, 2003). In fact, there is evidence that when students search for specific types of support they tend to appeal to certain sources and the perception of support from various sources tend to change throughout life (Furnman & Buhrmester, 1985; Levitt et al., 1994; Morrison, Laughlin, Miguel, Smith, & Widaman, 1997; Weigel, Deveraux, Leigh, & Ballard-Reisch, 1998). For example, it has been found that students from lower grades perceived more support from parents and teachers than students from higher grades; and regarding sex, it has been found that girls from lower grades perceived more support from classmates and total support than boys, and that girls from higher grades perceived more support from close friends, classmates, and total support than boys (Malecki & Demaray, 2002).

As previously mentioned there is evidence that sources differ in regard to the type of support that they usually provide to students. Previous studies have found that: parents and friends were associated with all types of support; siblings were more associated with emotional support; grandparents were more associated with tangible support; neighbors were more associated with tangible support; and teachers were more associated with appraisal and information support (Dubow & Ullman, 1989; Richman, Rosenfeld, and Bowen, 1998). Peers are important sources of instrumental and emotional support during the adolescence (Palmonari, Pombeni, & Kirchler, 1990; Palmonari, Kirchler, & Pombeni, 1991). In a more recent study, researchers found that parents tended to provide more emotional and informational support, teachers and other school sources tended to provide more informational support, and classmates and close friends tended to provide more emotional and instrumental support (Malecki & Demaray, 2003).

- **Social support and psychosocial functioning**

As it has been described in this chapter, social support is extremely relevant to children and adolescents and it can have a differentiated impact on their outcomes (Malecki et al., 2008). It correlates positively with positive outcomes (such as adaptive and social skills, academic competence and leadership) and negatively with negative outcomes (such as hyperactivity, withdrawal, anxiety, depression, conduct problems, aggression) (Davidson & Demaray, 2007; Demaray & Malecki, 2002). The existence of supportive relationships is associated with higher levels of adjustment in children and adolescents (Ahmed et al., 2010; Compas, 1987; Compas, Slavin, Wagner, & Vannatta, 1986).

The relationship between social support and adjustment has been mainly studied under two broad theories: the *main effect*– that postulates that social support is beneficial to all students – and the *stress buffer effect* (moderation) – that postulates that social support is mostly beneficial to students who are at risk by functioning as a buffer of the negative impact of those same risks (Cohen & Wills, 1985; Cohen, Gottlieb, & Underwood, 2000). Regarding the *main effect* results, and in what concerns outcomes and type of support (provided by different sources) there is evidence that: emotional, technical challenge and reality confirmation support provided by parents, teachers and peers was associated with school satisfaction and attendance; with insufficient instrumental (for boys) and socio-emotional support (for girls) provided by peers was associated with depression; and that listening support also provided by peers was associated with grades (Cheng, 1998; Richman et al., 1998). It has also been found that all types of support provided by parents were associated with personal adjustment or well-being; and that emotional support provided by teachers was related to social skills and academic competence or school adjustment. These findings reflect the relevance of investigating the type and sources of support, and the outcomes related to them (Malecki & Demaray, 2003). Demaray and Malecki (2002) found that only support from parents was associated with personal adjustment, and that support from both parents and classmates was associated with lower levels of clinical maladjustment and negative emotions. They also found that support from parents, teachers and school was associated with lower school maladjustment. It should however be noted that these results were obtained with a very specific sample. More recently, researchers have conducted a follow-up longitudinal study and found a significant and positive

relationship between social support and adjustment (Demaray, Malecki, Davidson, Hodgson, & Rebus, 2005). According to them their results can on one hand indicate that social support may be a stable construct (i.e., it does not change with time) and on the other, that it may be a dynamic one (i.e., it changes with time). They found that support from parents predicted adjustment (emotions, personal and clinical maladjustment) over time. They also found that support from classmates and from school predicted adjustment (emotions and school maladjustment, respectively) over time (Demaray, et al., 2005). Similarly to Demaray and Malecki (2002) this study was conducted with a very specific sample and therefore we should interpret these results with caution.

An approach focused on mediation effects can be based theoretically on literature about how stress influence individual perceptions. Seeds and colleagues (2010) argued that stress affects the perception of how effective social support can be which causes depression – *social support deterioration model* (for a review see Barrera, 1986). According to this model stress caused by different events make it more difficult for an individual to perceive support (Kaniasty & Norris, 1993; Seeds et al., 2010). Events that elicit prolonged stress can lead to social withdrawal, conflict, and to a stronger need to be supported, which translates into less effective support and less satisfaction with the received support (Atkinson, Liem, & Liem, 1986; Lane & Hobfoll, 1992; Lepore, Evans, & Schneider, 1992; Seeds et al., 2010). This model has been extensively studied in the field of child maltreatment and it has been showed that social support mediated the relationship between abuse (and neglect) and developmental achievement, posttraumatic stress disorder and mental health (e.g. Pepin & Banyard, 2006; Punamaki, Komproe, Qouta, El-Masri, & de Jong, 2005; Seeds et al., 2010; Vranceanu, Hobfoll, & Johnson, 2007).

According to the *appraisal theory of social support* (Lazarus & Folkman, 1984; Hunter & Boyle, 2004) it is not the event itself that defines the impact on adjustment but instead how people evaluate that event that it does. Social support reduces stress to a level that helps people to re-evaluate and give a less stressful meaning to the event (Lazarus & Folkman, 1984; Matsunaga, 2010). In order to social support to be effective (i.e. to be perceived by who receives it) this evaluation process is imperative. Thus the perception of social support of recipients mediates the relationship between social support and stress (Burleson & Goldsmith, 1998; Burleson & MacGeorge, 2002).

- **Individual differences on social support**

The literature suggests that perception of social support seems to vary depending on certain individual characteristics (e.g., sex). Girls and boys tend to differ in the way they perceive and use social support (e.g. Demaray, et al., 2005; Holt & Espelage, 2007; Malecki & Demaray, 2002; Malecki & Demaray, 2003; Rueger, Malecki & Demaray, 2010; Rigby, 2000). There is evidence that girls tend to perceive in general more social support than boys (Rigby, 2000). More specifically, it has been found that both sexes perceive support from teachers and parents similarly; and that girls tend to perceive more support from classmates and friends than boys (Demaray et al., 2005; Holt & Espelage, 2007; Malecki & Demaray, 2003; Rigby, 2000). In a more recent study, although sex differences have not been found regarding the perception of support from parents, girls perceived more support from the other sources (teachers, classmates, close friend and school) than boys. Girls perceive more support from close friends than all the other sources; and boys perceive less support from classmates than all the other sources (Rueger et al., 2010). There were also sex differences in the privileged relationships between certain sources of support and specific outcomes (unique associations). For example, the authors found that support from parents predicted both adjustment throughout time for girls (depression, self-esteem, attitude towards school, GPA) and boys (depression, self-esteem, GPA); and that support from classmates predicted adjustment (depression, attitude towards school) throughout time for boys (Rueger et al., 2010).

- **Social support in the context of bullying experiences**

A person perceives that he or she is supported when he or she knows that is worthy of value, the target of affection and esteem of others, and that belongs to a social network (Cobb, 1976; Flaspohler et al., 2009; Huebner, Funk, & Gilman, 2000; Malecki & Demaray, 2002; Malecki et al., 2008; Pearson, 1986; Seeds et al., 2010). Most likely this will not be true for victims and also bullies. Students who are victimized by their classmates most likely will not feel that their peers value them neither that they belong to a social network. In the same vein, students who bully their classmates most likely will not feel affection and esteem from peers and teachers due to their behavior (Malecki & Demaray, 2003). Moreover, it is expected that victims and bullies might differ from non-involved students regarding content and network dimensions of social

support. It is likely that victims receive less emotional support from classmates than they desire and they might search for it in parents, teachers or close friends instead. In fact, social support can be viewed as a resource that can help children and adolescents cope with bullying (Holt & Espelage, 2007). In opposition bullies are more likely to receive less emotional support from parents and teachers given the way they behave (Malecki & Demaray, 2003). Also, the studies consistently showed that victims, bully-victims and bullies (with exception to peer or classmates support in some studies) perceived less social support than non-involved students (e.g. Connors-Burrow, Johnson, Whiteside-Mansell, McKelvey, & Gargus, 2009; Demaray & Malecki, 2003; Flaspohler et al., 2009; Holt & Espelage, 2007). Although both victims and bully-victims usually perceive less social support, they also usually attribute more importance to it than bullies and non-involved students (Malecki & Demaray, 2003). According to Malecki and Demaray (2003) this immediately evidences a problem because those who value most social support do not receive it.

However, from a *stress buffer effect perspective*, victims and bully-victims may benefit the most from social support since they are at greater risk (Connors-Burrow et al., 2009; Malecki & Demaray, 2003). This protective role of social support may be more easily found when there is a correspondence between the source of support (e.g. classmates) and the environment (e.g. school) (Dubow & Tisak, 1989). More specifically, it has been hypothesized that social support can buffer the negative impact of bullying (Malecki & Demaray, 2003). According to this perspective, victims who are more supported will suffer less from their condition because social support will buffer its negative consequences (Malecki et al., 2008). However, empirical evidence on this perspective has produced contradictory results, since some studies found the *stress-buffer effect* (e.g. Connors-Burrow et al., 2009; Davidson & Demaray, 2007; Holt & Espelage, 2007; Malecki & Demaray, 2006) and others did not (e.g. Rigby, 2000; Rigby & Slee, 1999). Taking all this data into account it is clear that is necessary to further investigate the (buffer) role of social support in bullying (Holt & Espelage, 2007).

Beyond these theoretical approaches widely tested (i.e., *main and buffer effects*), social support has been yet studied as a mediator. There is evidence that being a victim of bullying leads to negative outcomes (Kochenderfer & Ladd, 1996; Malecki, Demaray, & Davidson, 2008). However, few studies have attempted to explain why and/or how this happens (Pouwelse, Bolman, Lodewijkx & Spaa, 2011) and this line of



research is still relatively recent (Malecki, Demaray, & Davidson, 2008; Seeds et al., 2010; Pouwelse et al., 2011). To our best knowledge, Malecki et al. (2008) conducted the first study that investigated the mediation effects of social support in the context of bullying. The authors proposed that, alternatively to studies conducted until that date, social support could help to explain the relationship between being a victim and adjustment. They expected that victims would feel less supported and that may contribute to negative outcomes. On the other hand, those that were not bullied would feel more support and hence have positive outcomes. They investigated support from five different sources and found that support from teachers totally<sup>35</sup> explained the association between the level of victimization and school adjustment; and that support from peers and friends partially explained the association between the level of victimization and different indicators of adjustment (personal, clinical, and emotional).

Seeds and colleagues (2010) investigated the mediator effects of social support taking the *social support deterioration model*<sup>36</sup> into account. They expected to find that low social support could help to explain the depressive symptoms caused by bullying and parental maltreatment; and they were able to confirm these expectations (Seeds et al., 2010). Similarly to previous findings (e.g. Holt & Espelage, 2007) they found that bullying (being a victim) was associated with low perception of social support (Seeds et al., 2010). The authors considered that the perception of isolation and the perception that others would not help explain the association between stress experiences - parental maltreatment (perpetrated by the father) and bullying (being a victim) - and depression. Three specific types of support were studied - appraisal, belonging and tangible support – however, only the two latter had a mediator effect (Seeds et al., 2010).

Pouwelse and colleagues (2011) also studied the mediator effects of social support. The authors proposed themselves to investigate the effects of both sex and social support in the relationship between victimization and depression. They studied moderator and mediator effects of social support (emotional and appraisal support). In what concerns the mediator effects they followed a line of argument similar to the one presented by Seeds and colleagues (2010). They based their expectations on the fact

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<sup>35</sup> These results are described as the authors reported them regardless of the present understanding that mediation results should not be reported in this way anymore.

<sup>36</sup> This model was previously mentioned in this thesis.

that being victimized hinders the ability of students to form a social network and hence the possibility of being supported (Demaray & Malecki, 2003; Rigby, 2000; Sharp, Thomson & Aurora, 2000). These authors failed to find a moderator effect but they were able to find mediator effects of social support (Pouwelse et al., 2011). They were able to confirm their hypothesis - “children who have been victimized receive very little support and hence suffer depression” (p. 809) (Pouwelse et al., 2011) - in the total sample. They also conducted separate analyses for boys and girls and they found mediation effects for victimized boys and for girls who were bully-victims (although girls had weaker mediation effects). The results of boys resembled the total sample however according to the authors the results of girls were more confusing. They considered that social support may have a different function for girls since the fact that they were less supported was a greater risk for depression than being involved in bullying. This can evidence that boys and girls differ on how much they need social support (Pouwelse et al., 2011) and not only regarding the amount of support that they perceive (Holt & Espelage, 2007; Malecki & Demaray, 2003; Rueger et al., 2010; Rigby, 2000).

Matsunaga (2010) studied the perception of support of recipients through the evaluation of enacted support (perceived quality of the enacted social support) (Goldsmith, McDermott, & Alexander, 2000) and the communication satisfaction (perceived positive affect that arises from the fit between communicative exchanges and a person’s standards and what he/she expects) (Gray & Laidlaw, 2004; Hecht, 1978). These two factors are distinct and represent different aspects of victims’ perception (Matsunaga, 2010). The evaluation of enacted support is about the social support that is provided during the interaction with others while communication satisfaction is about the person’s perceptions of the interaction itself. Nevertheless, both factors are included to outline the impact of victims’ perceptions on their well-being (after bullying). And thus identify which communication strategies increased their coping (Matsunaga, 2010). It is expected that the social support enacted after victims’ disclosure would be related to their positive evaluation of enacted support and higher communication satisfaction (Matsunaga, 2010). Also, both factors would have a positive association with how comfortable and willing victims’ would be to disclose about being bullied. The author also predicted that social support (emotional, esteem and network support) had a positive impact on victims’ well-being (after bullying) through both evaluation of enacted support and communication satisfaction, and

willingness and comfortableness to disclose. Based on these predictions, the *model of appraisal, social support, and adaptation* (MASSA) was empirically tested in two different cultures (Japan and US). The results showed that emotional support was positively evaluated and increased how comfortable and willing victims' were to disclose, and in the end increased their well-being. The other types of social support had weaker or deteriorative effects on well-being. In this sense, it becomes clear that there are support behaviours that are ineffective or even negative (Matsunaga, 2010).

More recently, Fullchange and Furlong (2016) although not having studied empirically, proposed that “perhaps bullying might not lead directly to mental health problems but, rather, that it undermines important internal and external assets that support personal coping. That is, it might be the case that youth who succumb the most to mental health problems related to bullying victimization are those who see their personal and social support system compromised first. However, absent longitudinal and/or mediational studies, no definitive causal pathway can be concluded.” (p. 8-9). Our last and third study intends to be a contribution in this sense and is presented in the next chapter.

**CHAPTER 2 – EMPIRICAL EVIDENCE ON THE MEDIATION ROLE OF THE  
NEED TO BELONG ON THE RELATIONSHIP BETWEEN BULLYING AND  
WELL-BEING**

**1. STUDY 3. BULLYING AND WELL-BEING: THE ROLE OF THE  
NEED TO BELONG.**

**• RESEARCH PROBLEMS**

Previous studies reported that the perception of just and respectful treatment is associated with feeling more valued and included (Bude & Lantermann, 2006; Lind & Tyler, 1988; Umlauf et al., 2009). In the same vein, perceived support of relevant others is also associated with feelings of belonging, value, affection and esteem (Cobb, 1976; Flaspohler et al., 2009; Huebner, Funk, & Gilman, 2000; Malecki & Demaray, 2002; Malecki et al., 2008; Pearson, 1986; Seeds et al., 2010). Since bullying is a relationship problem (Pepler, 2006) it may influence the way students perceive how they are treated by others (Tyler & Blader, 2003) and how justice is perceived in those relationships. Moreover, those who are more directly involved in bullying, as victims or bullies, may also experience problems in perceiving support from relevant others (Malecki & Demaray, 2003). We propose that this may happen because bullying is an exclusion behaviour and it can thwart belonging (Cassidy, 2009; Feigenberg, King, Barr, & Selman, 2008; Hawker & Boulton, 2001; Juvonen & Gross, 2005). In other words, if a student's *need to belong* is threatened it is likely that he or she may perceive others are less just and less supportive.

Few studies have addressed the process through which bullying erodes well-being. We consider that the *need to belong* (Baumeister & Leary, 1995) may help to provide a plausible explanation to why bullying is so prejudicial. Through bullying, victims and bully-victims are excluded from their peer group, which can threaten their need to belong. In turn, being excluded or rejected is associated with negative consequences to well-being (Bourgeois & Leary, 2001; Leary, et al., 2001; Leary et al., 1995). Our argument is that bullying can be a threat to the *need to belong* and this can be the reason why it has such a negative impact on well-being. More specifically, we propose that the lower perception of support from relevant others and the perception that they are

less just (indicators of the threat to the *need to belong*) can help explain why victims and bully-victims have poorer well-being.

- **OBJECTIVES AND HYPHOTESES**

Do victims and bully-victims perceive social support and relevant others differently than non-involved students? Can this explain their lower well-being? The present study is an empirical attempt answer these questions, in particular to test our argument and to clarify the mediator effect of social support between victimization and well-being. We intend to go further and to also explore the role of justice perceptions as a possible mediator, and we decided to study these effects regarding victims and bully-victims. Since in our previous studies we found differences mainly regarding (previous and current) victims and previous bullies we decided to use Olweus' classification of involvement in bullying in the present study. This choice was also motivated by the fact that using this classification allowed us to examine bully-victims, which is the group that has been in described in the literature as being at greater risk.

To our knowledge, the mediator effects of both social support and justice perceptions have not yet been studied in the relationship between victimization and well-being. We expect to find evidence of the threat to the *need to belong* in victims and bully-victims. However, we also intend to analyse if there are mediation effects regarding bullies for exploratory purposes, including non-involved students in the analyses for comparative purposes (control group).

Our main goal is to investigate why bullying is so damaging to the well-being and provide further evidence to the previous findings that showed that the roles in bullying differ in their perception of social support (from five different sources), (Demaray & Malecki, 2003). Additionally, we are also interested in analyzing the differences in justice perceptions and well-being.

Our first objective is to investigate if victims and bully-victims perceive less social support and relevant others as less just, and have poorer well-being than bullies and non-involved students. In particular, we expect that: (h1) victims and bully-victims perceive less support from all sources than non-involved students; (h2) victims and bully-victims perceive classmates, teachers and parents as less just than non-involved students; and finally, that (h3) victims and bully-victims have lower life satisfaction, affect balance and self-esteem than non-involved students.

Our second objective is to investigate the mediation effect of perceived social support and justice perceptions. More specifically, we expect that: (h4) perceived social support and justice perceptions mediate the relationship between being a victim or bully-victim and well-being. The mediation model we proposed is diagramed in Figure 1.<sup>37</sup>

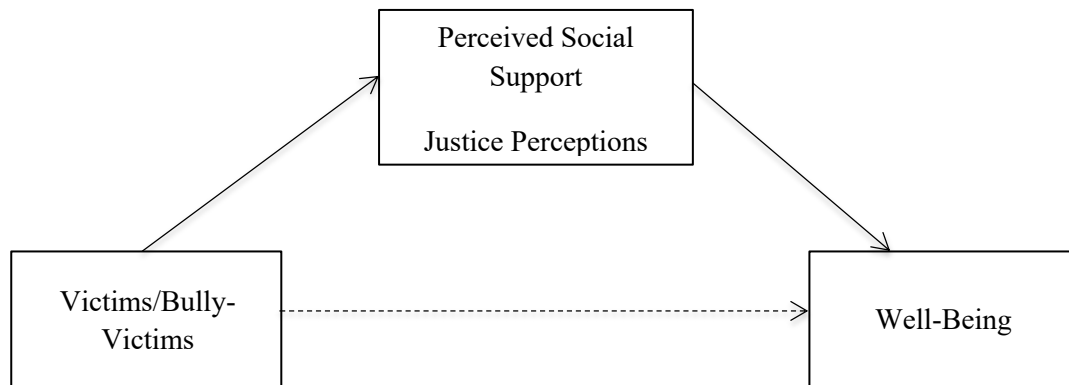


Figure 1. The hypothesized mediator effects of social support and justice perceptions in the relationship between being a victim or a bully-victim and well-being.

- **METHOD**

#### Participants

Five hundred and sixty-five middle school students participated in the present study. We chose this school cycle since bullying is most severe in middle school, between 12 and 14 years (Bradshaw, Sawyer, & O'Brennan, 2007; Fried & Sosland, 2009). We excluded 80 students from the analysis because they were over age 15<sup>38</sup>. The students attended five schools located in Lisbon and in the suburbs of Lisbon. In the final sample, 195 students (40.2%) were from 7th grade, 181 students (37.3%) were from 8th grade and 109 students (22.5%) were from 9th grade. Their ages varied between 11 and 15 years ( $M = 13.20$ ;  $SD = 0.93$ ); 284 were girls and 201 were boys. One student failed to answer the questions regarding behaviour in bullying and therefore was removed from analyses.

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<sup>37</sup> As mentioned above we included bullies in our analyses but only for exploratory purposes and therefore we did not draw any hypotheses regarding them.

<sup>38</sup> The objective was to only include in our analyses the age group where bullying is more prevalent.

## Procedure

After the authorization to conduct the study from the Portuguese Ministry of Education, we invited a convenience sample of schools to participate in the study, at each school, we asked students to participate in a study about bullying and school experiences and obtained consent from the students' parents and from students themselves.

The questionnaires were administered in the presence of the class teacher (see Appendix G). Instructions and a definition of bullying were provided (English translation): *“In this part of the study, we ask you to remember your past school experiences, in particular situations related to the phenomenon of bullying. Bullying behaviors are practiced by a person or a group, and repeated for some time with the intention to hurt, threaten or intimidate another person, causing him or her to suffer. Bullying is different from other aggressive behaviors because it is practiced by someone stronger or with more power that leverages the power imbalance to make the victim feel helpless. There are several forms of bullying: hitting, pushing, grabbing, chasing, making fun of, joking, name calling, telling lies about the person, stop talking to and ignoring, setting aside and excluding from groups and games.”* Participants were free to ask questions and to stop answering the questionnaire whenever they wanted. All questionnaires were anonymous and we guaranteed the confidentiality of the data collection process. Students took about 45 minutes to complete the questionnaires.

## Measures

### *Social support.*

We measured social support with the five subscales (Parents Support Scale, Teachers Support Scale, Classmates Support Scale, Close Friend Support Scale and School Support Scale) of the Child and Adolescent Social Support Scale (CASSS) (Malecki, Demaray &, Elliott, 2000). The CASSS subscales measure the perceived frequency of available social support (1 = never to 6 = always) and the importance attributed to social support (1 = not important to 3 = very important). All subscales included three items that corresponded to each of the five types of social support. Scores were computed by summing items, with higher scores indicating a stronger endorsement of the construct. By summing the items of all the subscales CASSS, it is possible to have a total support score (Total Support Scale). In the present study we only measured perceived frequency of social support and we only used the subscales

scores. Table 5 displays the sample-items and the reliability coefficients for the subscales and for the total scale. In order to determine the factorial structure of CASSS a Principal Component Analysis<sup>39</sup> (PCA) followed by a varimax rotation was carried out. We found the five expected factors (according to Malecki et al., 2000) and they accounted for 60.57% of the total variance of CASSS - Perceived Frequency of Social Support.

Table 5. The sample-items and the reliability coefficients for Child and Adolescent Social Support Scale

	<i>A</i>	N of Items
<b>Parents Support Scale</b>	.92	12
sample item: "My parent(s) listen to me when I need to talk."		
<b>Teachers Support Scale</b>	.91	12
sample item: "My teacher(s) care about me."		
<b>Classmates Support Scale</b>	.94	12
sample item: "My classmates like most of my ideas and opinions."		
<b>Close Friend Support Scale</b>	.95	12
sample item: "My close friend stick up for me if others are treating me badly."		
<b>School Support Scale</b>	.96	12
sample item: "People in my school understand me."		
<b>Total scale</b>	.96	60

### *Subjective Well-being.*

We measured cognitive subjective well-being with the Portuguese version of the Satisfaction with Life Scale (SWLS) (Diener, Emmons, Larsen, & Griffin, 1985; Neto, 1993) (sample item – "In most ways my life is close to my ideal."; 5 items;  $\alpha = .81$ ). The responses to the SWLS were given on a 6-point scale from 1 ('totally disagree') to 6 ('totally agree'). Scores were computed by summing the items, with higher scores indicating a stronger endorsement of the construct. In order to determine the factorial structure of SWLS a PCA was carried out. One factor accounted for 58.54% of the total variance of SWLS.

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<sup>39</sup> Since our scales were previously validated and had a solid background supporting them we used a priori criteria (Pestana & Gageiro, 2005) in the extraction of components in the PCA. In the present study we used a different cut-off point regarding communalities because, unlike in Study 1 and Study 2, our data allowed us to use a more conservative criterion without prejudice to our scales.



We measured affective subjective well-being with the Scale of Positive and Negative Experience (SPANE) that measures for how long people experience positive and negative feelings (Diener et al., 2010). We asked about the occurrence of such feelings in ‘the last two months’, the time period established to measure victimization and bullying behaviour. The SPANE allows to compute two scores, one regarding positive feelings (SPANE-P - sample item: “Positive”; 6 items;  $\alpha = .87$ ) and other regarding negative feelings (SPANE-N - sample item: “Negative”; 6 items;  $\alpha = .78$ ). Responses were given on a 6-point scale from 1 ("never") to 6 ("always"). In order to determine the factorial structure of SPANE a PCA followed by a varimax rotation was carried out. Two factors accounted for 55.86% of the total variance of SPANE (which corresponded to SPANE-P and SPANE-N). Scores of SPANE-P and SPANE-N were computed separately by summing the items, with higher scores indicating a stronger endorsement of the constructs. The score of SPANE-N was subtracted from the score of SPANE-P in order to compute the Affect Balance Score (SPANE-B;  $\alpha = .86$ ).

### *Self-esteem*

We measured self-esteem with the Self-Esteem Scale (Rosenberg, 1965) (sample item: "On the whole I am satisfied with myself."; 10-items,  $\alpha = .86$ ). The responses were given on a 6-point scale from 1 (‘totally disagree’) to 6 (‘totally agree’). Scores were computed by averaging across items, with higher scores indicating a stronger endorsement of the construct. In order to determine the factorial structure of the Self-Esteem Scale a PCA was carried out. One factor accounted for 44.87% of the total variance of the Self-Esteem Scale.

### *Justice Perceptions.*

We measured justice perceptions with three scales: *Parents Justice Scale* (Dalbert, 2002) (sample item: “My parents often behave unfairly toward me.” (reverse coded).; 4 items<sup>40</sup>;  $\alpha = .91$ ), *Teachers Justice Scale* (Dalbert & Stober, 2002) (sample item: " My teachers are often unjust to me.” (reverse coded); 4 items<sup>41</sup>;  $\alpha = .88$ ) and *Classmates*

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<sup>40</sup> Four items of the original scale were removed due to the low communalities (below .50) obtained for these items in PCA.

<sup>41</sup> Six items of the original scale were removed due to the low communalities (below .50) obtained for these items in PCA.

Justice Scale - an adaption of the Peer Justice Scale (Correia & Dalbert, 2007) (sample item: "I am often treated unfairly by my classmates." (reverse coded); 4 items<sup>42</sup>;  $\alpha = .91$ ). The responses were given on a 6-point scale from 1 ('totally disagree') to 6 ('totally agree'). In order to determine the factorial structure of each of the three justice perceptions scales three PCA were carried out: Parents Justice Scale (78.08% of the total variance), Teachers Justice Scale (73.92% of the total variance) and Classmates Justice Scale (79.26% of the total variance).

### *Behaviour in bullying*

We measured behaviour in bullying with two questions of the Olweus Bully/victim Questionnaire (Olweus, 1986, 1993). Victim behaviour was assessed with the question "How often have you been bullied at school in the past couple of months?" and bullying behaviour was assessed with the question "How often have you taken part in bullying another student(s) at school in the past couple of months?". The responses were given on 5-point scale: 'I haven't been bullied/bullied other students at school in the past couple of months', 'only once or twice', '2 or 3 times a month', 'about once a week' and 'several times a week'. We used the category 'only once or twice' as a lower-bound cutoff point to classify the participants. If participants answered the first question above the cutoff point and the second one below the cutoff point they were classified as bullies. If participants answered the first question below the cutoff point and the second one above the cutoff point they were classified as victims. If participants answered both questions above the cutoff point they were classified as bully-victims. If participants answered both questions below the cutoff point they were classified as non-involved students. The non-involved group was considered the comparison category since they are not directly involved in the phenomenon and in theory have higher well-being.

In the present study, we did not use the cutoff point proposed by Solberg and Olweus (2003) - '2 or 3 times a month' - however, the same authors report that students that were being bullied or bullied other students 'only once or twice' differed significantly in regard to their psychological adjustment from those that were not. Moreover, these authors recommend the use of the '2 or 3 times a month' cutoff point especially in prevalence studies. The same authors also argue that the cutoff point that

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<sup>42</sup> Two items of the original scale were removed due to the low communalities (below .50) obtained for these items in PCA.

we chose - ‘only once or twice’- can be useful to help schools in their prevention and intervention efforts, since it can provide information about the less serious cases and not only the more serious ones (Solberg & Olweus, 2003). Our choice was due to the fact that the present study is not focused on prevalence data and we aim to contribute to more effective anti-bullying interventions. Based on this criterion, 74 participants were classified as victims, 52 participants were classified as bullies, 63 participants were classified as bully-victims and 295 participants were classified as non-involved.

• **RESULTS**

Distribution of participants into roles in bullying

In order to avoid problems related to strongly unbalanced factorial designs (Cramer, 1998) we balanced the roles groups. Therefore, we randomly selected 65 non-involved students from the total of the non-involved group (295). The following analyses were conducted with the sample with the balanced groups. The new distribution of participants into roles in bullying is presented in Table 6.

Table 6. Frequency and prevalence in roles in bullying

	Boys	Girls	<i>N</i>
Victims	20	54	74
Bullies	28	24	52
Bully-Victims	21	42	63
Non-Involved	30	35	65

In addition to role in bullying, sex was also used as an independent variable, because as indicated by chi-square tests, girls and boys were unequally distributed among roles,  $\chi^2(3) = 15.49, p = .001$ . Victims were significantly more prevalent among girls than boys (73% vs. 27%, adjusted residuals 2.9). Bullies and non-involved students were significantly more prevalent among boys than girls (53.8%% vs. 46.2%, adjusted residuals 2.1; 53.8%% vs. 46.2%, adjusted residuals 2.5, for bullies and non-involved students data respectively). These results are not totally in line with the literature that indicates that boys tend to be bullies and/or bully-victims and that girls tend to be non-involved (e.g. Holt & Espelage, 2007). Regarding victims there are contradictory results regarding sex (Pouwelse et al., 2011) since some authors reported

differences and others did not (e.g. Holt & Espelage, 2007; Malecki et al., 2008; Naylor & Cowie, 1999; Pouwelse et al., 2011). In the case of victims, our results are in line with the evidence showed by Pouwelse et al. (2011).

Before conducting the analyses, some tests were performed to assess normality of error distribution (Kolmogorov Test) and homoscedasticity of errors (Levene Test) (see Appendix H). These assumptions were not confirmed for all variables, but ANOVA is considered relatively resistant to non-normality and the concerns about homoscedasticity are less serious when comparing groups with similar sizes (Pestana & Gageiro, 2003). Results were accepted also because univariate non-parametric tests (Kruskal-Wallis) allowed to arrive to the same conclusions (see Appendix I).

#### Differences in Roles

To examine the effect of both sex and role on social support, justice perceptions and well-being, a series of 2 (Sex) X 4 (Role) MANOVA was conducted, with parents support, teachers support, classmates support, close friend support and school support, parents justice, teachers justice, classmates justice, life satisfaction, affect balance, self-esteem as dependent variables. Follow-up univariate tests were then conducted. Once the scores were obtained with different scales of measure, the variables were used in their standardized form.

#### *The effect of sex on social support.*

The multivariate test indicated a significant main effect of sex on social support (Pillai's Trace = .11,  $F(5, 240) = 6.20$ ,  $p < .001$ , partial  $\eta^2 = .11$ ). According to the univariate tests, the effect was significant in the case of close friend support ( $F(1, 244) = 18.79$ ,  $p < .001$ , partial  $\eta^2 = .07$ ); but not in the case of parents support ( $F(1, 244) = 2.66$ ,  $p = n.s.$ , partial  $\eta^2 = .01$ ), teachers support ( $F(1, 244) = 1.32$ ,  $p = n.s.$ , partial  $\eta^2 = .01$ ), classmates support ( $F(1, 244) = 1.33$ ,  $p = n.s.$ , partial  $\eta^2 = .01$ ) and school support ( $F(1, 244) = 0.13$ ,  $p = n.s.$ , partial  $\eta^2 = .00$ ). Through pairwise comparisons<sup>43</sup> it was found that girls ( $M = 0.22$ ,  $SD = 0.84$ ) scored significantly higher on close friend support than boys ( $M = -0.27$ ,  $SD = 1.00$ ) ( $p < .05$ ).

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<sup>43</sup> Note: variables were used in their standardized form.

*The effect of participant role on social support.*

The multivariate test indicated a significant main effect of role on social support (Pillai's Trace = .19,  $F(15, 726) = 3.25$ ,  $p < .001$ , partial  $\eta^2 = .06$ ). According to the univariate tests, the effect was significant in the case of teachers support ( $F(3, 244) = 4.59$ ,  $p = .004$ , partial  $\eta^2 = .05$ ) and classmates support ( $F(3, 244) = 8.55$ ,  $p < .001$ , partial  $\eta^2 = .10$ ); but not in the case of parents support ( $F(3, 244) = 1.43$ ,  $p = n.s.$ , partial  $\eta^2 = .02$ ), close friend support ( $F(3, 244) = 1.04$ ,  $p = .n.s.$ , partial  $\eta^2 = .01$ ) and school support ( $F(3, 244) = 1.36$ ,  $p = n.s.$ , partial  $\eta^2 = .02$ ).

Means and standard deviations in social support for all roles in bullying are shown in Table 7. The post-hoc group comparisons analysis (Tukey HSD) revealed that: bullies scored significantly lower on teachers support than all other roles; and that victims and bully-victims scored significantly lower on classmates support than bullies and non-involved students.

Table 7. Mean scores and standard deviations in social support

	Victims		Bullies		Bully-Victims		Non-Involved	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Parents Support	-0.04	1.00	-0.24	1.11	-0.22	1.00	0.11	0.93
Teachers Support	0.07 <sup>b</sup>	0.91	-0.45 <sup>a</sup>	0.91	0.03 <sup>b</sup>	0.96	0.18 <sup>b</sup>	0.91
Classmates Sup.	-0.46 <sup>a</sup>	0.97	0.27 <sup>b</sup>	0.88	-0.33 <sup>a</sup>	1.02	0.11 <sup>b</sup>	0.90
Close Friend Sup.	0.02	1.01	0.09	0.82	-0.06	1.10	-0.06	0.90
School Support	-0.23	0.95	0.07	0.91	-0.16	0.89	0.07	1.06

*Note.* Variables were used in their standardized form. Means in the same row with different superscripts differ significantly from each other ( $p < .05$ ).

*The interaction effect of sex X role on social support.*

There was not a significant interaction effect of sex X role on social support (Pillai's Trace = .07,  $F(15, 726) = n.s.$ ,  $p = .330$ , partial  $\eta^2 = .02$ ).

*The effect of sex on justice perceptions.*

The multivariate test indicated a significant main effect of sex on justice perceptions (Pillai's Trace = .07,  $F(3, 242) = 5.58$ ,  $p = .001$ , partial  $\eta^2 = .07$ ). According to the univariate tests, the effect was significant in the case of classmates justice ( $F(1, 244) = 4.59$ ,  $p = .033$ , partial  $\eta^2 = .02$ ) and teachers justice ( $F(1, 244) = 14.14$ ,  $p < .001$ , partial  $\eta^2 = .06$ ); but not in the case of parents justice ( $F(1, 244) = 0.72$ ,  $p = n.s.$ , partial  $\eta^2 = .00$ ). Through pairwise comparisons it was found that girls ( $M = -0.15$ ,  $SD = 1.01$ ;  $M = 0.05$ ,  $SD = 0.91$ , respectively) scored significantly higher on classmates and teachers justice than boys ( $M = -0.21$ ,  $SD = 1.07$ ;  $M = -0.43$ ,  $SD = 1.07$ , respectively) ( $p < .05$ ).

*The effect of role on justice perceptions.*

The multivariate test indicated a significant main effect of role on justice perceptions (Pillai's Trace = .24,  $F(9, 732) = 7.06$ ,  $p < .001$ , partial  $\eta^2 = .08$ ). According to the univariate tests, the effect was significant in the case of classmates justice ( $F(3, 244) = 18.19$ ,  $p < .001$ , partial  $\eta^2 = .18$ ) but not in the case of teachers justice ( $F(3, 244) = 0.54$ ,  $p = n.s.$ , partial  $\eta^2 = .01$ ) and parents justice ( $F(3, 244) = 1.76$ ,  $p = n.s.$ , partial  $\eta^2 = .02$ ).

Means and standard deviations in justice perceptions for all roles in bullying are shown in Table 8. The post-hoc group comparisons analysis (Tukey HSD) revealed that: victims scored significantly lower on classmates justice than bullies and non-involved students; and that bully-victims scored significantly lower on classmates justice than bullies.

Table 8. Mean scores and standard deviations in justice perceptions

	Victims		Bullies		Bully-Victims		Non-Involved	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Classmates Justice	-0.69 <sup>a</sup>	1.03	0.41 <sup>c</sup>	0.70	-0.28 <sup>a,b</sup>	0.93	0.07 <sup>b,c</sup>	1.04
Teachers Justice	-0.07	1.00	-0.36	0.99	-0.07	0.92	-0.14	1.09
Parents Justice	-0.13	1.10	-0.14	1.04	-0.22	1.04	0.13	0.91

*Note.* Variables were used in their standardized form. Means in the same row with different superscripts differ significantly from each other ( $p < .05$ ).



*The interaction effect of sex X role on justice perceptions.*

There was not a significant interaction effect of sex X role on justice perceptions (Pillai's Trace = .06,  $F(9, 732) = 1.70$ ,  $p = n.s.$ , partial  $\eta^2 = .02$ ).

*The effect of sex on well-being.*

The multivariate test indicated a significant main effect of sex on well-being (Pillai's Trace = .07,  $F(3, 243) = 6.15$ ,  $p < .001$ , partial  $\eta^2 = .07$ ). According to the univariate tests, the effect was significant in all indicators of well-being: life satisfaction ( $F(1, 245) = 17.30$ ,  $p < .001$ , partial  $\eta^2 = .07$ ), affect balance ( $F(1, 245) = 9.17$ ,  $p = .003$ , partial  $\eta^2 = .04$ ) and self-esteem ( $F(1, 245) = 8.12$ ,  $p = .01$ , partial  $\eta^2 = .03$ ). Through pairwise comparisons it was found that boys ( $M = 0.35$ ,  $SD = 0.89$ ;  $M = 0.15$ ,  $SD = 0.90$ ;  $M = 0.19$ ,  $SD = 0.87$ , respectively) scored significantly higher on life satisfaction, affect balance and self-esteem than girls ( $M = -0.24$ ,  $SD = 1.01$ ;  $M = -0.36$ ,  $SD = 1.06$ ;  $M = -0.32$ ,  $SD = 1.03$ , respectively) ( $p < .05$ ).

*The effect of role on well-being.*

The multivariate test indicated a significant main effect of role on well-being (Pillai's Trace = .18,  $F(9, 735) = 5.10$ ,  $p < .001$ , partial  $\eta^2 = .06$ ). According to the univariate tests, the effect was significant in all indicators of well-being: life satisfaction ( $F(3, 245) = 3.44$ ,  $p = .02$ , partial  $\eta^2 = .04$ ), affect balance ( $F(3, 245) = 8.71$ ,  $p < .001$ , partial  $\eta^2 = .10$ ) and self-esteem ( $F(3, 245) = 9.71$ ,  $p < .001$ , partial  $\eta^2 = .11$ ).

Means and standard deviations in well-being for all roles are shown in Table 9. The post-hoc group comparisons analysis (Tukey HSD) revealed that: victims and bully-victims scored significantly lower on life satisfaction than non-involved students. Victims and bully-victims also scored significantly lower on affect balance and self-esteem than bullies and non-involved students.

Table 9. Mean scores and standard deviations in well-being

	Victims		Bullies		Bully-Victims		Non-Involved	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Life Satisfaction	-0.25 <sup>a</sup>	1.01	0.02 <sup>a,b</sup>	0.93	-0.11 <sup>a</sup>	0.98	0.40 <sup>b</sup>	0.97
Affect Balance	-0.43 <sup>a</sup>	1.05	0.07 <sup>b</sup>	0.95	-0.51 <sup>a</sup>	1.01	0.35 <sup>b</sup>	0.83
Self-Esteem	-0.62 <sup>a</sup>	0.98	0.26 <sup>b</sup>	0.94	-0.25 <sup>a</sup>	0.91	0.31 <sup>b</sup>	0.85

*Note.* Variables were used in their standardized form. Means in the same row with different superscripts differ significantly from each other ( $p < .05$ ).

*The interaction effect of sex X role on well-being.*

There was not a significant interaction effect of sex X participant role on social support (Pillai's Trace = .05,  $F(9, 735) = 1.39$ ,  $p = n.s.$ , partial  $\eta^2 = .02$ ).

#### Social Support and Justice Perceptions as Mediators between Role and Well-Being

Considering the levels of the variables, the mediation effects of social support and justice perceptions in the relationship between role and well-being (h3) were examined according with Hayes and Preacher (2013), by applying the `MEDIATE` macro as available in <http://afhayes.com/spss-sas-and-mplus-macros-and-code.html>. Total, direct, and indirect effects were estimated for role (predictor variable) on well-being (outcome variable) through perceived social support and justice perceptions (mediators). The procedure involves the transformation of the multi-categorical independent variable in a set of dummy variables, and the calculation of a set of regression models (between role and well-being; between role and the mediators; and between the mediators and well-being). The models generate all the information needed to calculate indirect effect coefficients, also generated by the macro (for more details consult: <http://www.afhayes.com/public/mediate.pdf>). The analysis was replicated for each one of the well-being measures.

Once the connection between role, perceived social support, justice perceptions and well-being was already studied in the ANOVA's section, only all indirect coefficients will be presented in detail<sup>44</sup>. Following the recommendations of the authors, inference about relative indirect effects is done based on the asymmetric bootstrap confidence interval, considering "statistically different from zero if the confidence interval does not straddle zero" (p. 12) (Hayes & Preacher, 2013).

Mediation has been mainly tested using the four-step multiple regression by Baron and Kenny (1986). The first step is to examine the relationship between the predictor and outcome variable (path c). If it is significant the second and third steps are to examine the relationship between the predictor variable and the mediator (path a) and the relationship between the mediator and the outcome variable (path b). Again if these relationships are also significant we proceed to the fourth and last step, examine if the

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<sup>44</sup> To a more detailed description of the mediation results please see the Appendix J.

relationship between the predictor and outcome variable decreases (partial mediation) or becomes insignificant (full mediation) (path  $c'$ ) (Jensen, King, Carcioppolo, & Davis, 2012).

However, this approach (Baron & Kenny, 1986) has been considered obsolete and has been deprecated by the bootstrap method (Hayes, 2009). According to Hayes (2009) the approach of Baron and Kenny (1986) has been subject to criticism due to its lower power, which makes it more unlikely to detect an indirect effect when compared to other methods. Further criticism relates to the fact that this approach does not quantify the indirect effect; instead it is inferred by the result of series of hypothesis tests. This raises questions because these inferences can be inaccurate and can lead to wrong decisions (Hayes, 2009). Hayes (2009) argues that the approach of Baron and Kenny (1986) has been frequently used because it is easy to understand and simple. However, there are more valid alternatives.

Concomitantly to the use of method proposed by Baron and Kenny (1986) researchers have frequently used the Sobel test (Sobel, 1982). Hayes (2009) considers that it does not make much sense to use the Sobel test as a supplement since the causal steps method proposed by Baron and Kenny (1986) does not add any relevant information about the indirect effect in addition to the Sobel test (Sobel, 1982). And for that reason, Hayes (2009) argues that using the Sobel test (Sobel, 1982) should not depend on the significance of relationship between the predictor variable and the mediator or between the mediator and the outcome variable. However, Hayes (2009) also criticizes the use of Sobel test (Sobel, 1982) because it assumes that the indirect effect is normally distributed, and instead it tends to be asymmetrically distributed (Bollen & Stine, 1990; Stone & Sobel, 1990).

Therefore, Hayes (2009) advocates the use of tests that are more powerful and that do not require normality, namely the bootstrap method and the  $M$ -test. When comparing the two the author considers it is best to use the bootstrap method because unlike the  $M$ -test it does not require the use of tables or other assumptions. The bootstrap method does not have assumptions regarding the distribution of the indirect effect, it bases the inference on an estimation of the indirect effect itself and it can be used to make inferences about indirect effects in any model irrespective of its complexity (Hayes, 2009).

This method also examines paths  $a$ ,  $b$  and  $c$ . Nevertheless, Hayes (2009) and other researchers (e.g. Shrout & Bolger, 2002) argue that even if the total effect (path  $c$ ) is

not significant one can proceed with testing for indirect effects. The author consider that avoiding to test indirect effects in this case can prevent researchers from finding possible relevant mechanisms through which the independent variable influences the dependent variable (Hayes, 2009).

Before proceeding with the analysis, Tolerance and VIF scores for the mediators were performed to conclude for the inexistence of multicollinearity between variables (view Table 10). The assumption of homogeneity of regression was ensured in all models with just a few exceptions (the test is included in the MACRO, all interactions between mediators and well-being measures are non-significant except the interaction between school support, life satisfaction and self-esteem).

Table 10. Multicollinearity Tests

	Tolerance	VIF
Parents Support Scale	.508	1.968
Teachers Support Scale	.525	1.904
Classmates Support Scale	.451	2.219
Close Friend Support Scale	.709	1.410
School Support Scale	.656	1.525
Classmates Justice Scale	.541	1.850
Teachers Justice Scale	.511	1.957
Parents Justice Scale	.485	2.062

*Correlations between mediators and outcome variables.*

Table 11 shows that life satisfaction had a positive significant correlation with parents support ( $r = .51$ ;  $p < .01$ ), teachers support ( $r = .25$ ;  $p < .01$ ), classmates support ( $r = .30$ ;  $p < .01$ ), close friend support ( $r = .176$ ;  $p < .01$ ), school support ( $r = .233$ ;  $p < .01$ ) and parents justice ( $r = .26$ ;  $p < .01$ ). There were positive relationships between affect balance and parents support ( $r = .45$ ;  $p < .01$ ), teachers support ( $r = .27$ ;  $p < .01$ ), classmates support ( $r = .36$ ;  $p < .01$ ), close friend support ( $r = .20$ ;  $p < .01$ ), school support ( $r = .26$ ;  $p < .01$ ), classmates justice ( $r = .18$ ;  $p < .01$ ) and parents justice ( $r = .32$ ;  $p < .01$ ). There were also positive relationships between self-esteem and parents support ( $r = .37$ ;  $p < .01$ ), teachers support ( $r = .23$ ;  $p < .01$ ), classmates support ( $r = .39$ ;  $p < .01$ ), close friend support ( $r = .16$ ;  $p < .01$ ), school support ( $r = .24$ ;  $p < .01$ ), classmates justice ( $r = .34$ ;  $p < .01$ ) and parents justice ( $r = .34$ ;  $p < .01$ ). Regarding the

mediator variables, support from all sources correlated significantly and positively with each other and the same was true regarding justice perceptions.

Table 11. Intercorrelations and descriptive statistics

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1. Parents sup.	-0.09	1.01	1									
2. Teachers sup.	-0.04	0.95	0.49**	1								
3. Class. sup.	-0.13	0.99	0.26**	0.27**	1							
4. Cl. Friend sup.	-0.01	1.01	0.22**	0.24**	0.45**	1						
5. School Sup.	-0.07	0.96	0.24**	0.33**	0.54**	0.40**	1					
6. Class. justice	-0.18	1.03	-0.10	-0.13*	0.41**	0.07	0.12*	1				
7. Teach. justice	-0.15	1.00	0.10	0.36**	0.04	-0.02	0.04	0.33**	1			
8. Parents justice	-0.09	1.03	0.46**	0.25**	0.07	0.03	0.04	0.27**	0.53**	1		
9. Life S.	0.00	1.00	0.51**	0.25**	0.30**	0.18**	0.23**	0.07	-0.04	0.26**	1	
10. Affect B.	-0.15	1.03	0.45**	0.27**	0.36**	0.20**	0.26**	0.18**	0.02	0.32**	0.58**	1
11. Self-Esteem	-0.11	1.00	0.37**	0.23**	0.39**	0.16*	0.24**	0.34**	0.07	0.34**	0.54**	0.64**

Note.\*\*  $p < 0.01$ , \*  $p < 0.05$ . Variables were used in their standardized form.

*Mediation effects between role and life satisfaction.*

Table 12 shows the model summary for each regression model calculated. As showed in the previous section, role has a significant impact on life satisfaction, teachers support, classmates support and classmates justice scores.

Table 12. Model Summary (life satisfaction)

Paths		R	R-sq	Adj R-sq	F	df1	df2	p
<b>Role</b>	- Life Satisfaction	<b>.2413</b>	<b>.0582</b>	<b>.0467</b>	<b>5.0679</b>	<b>3.0000</b>	<b>246.0000</b>	<b>.0020</b>
Role	- Parents Support	.1350	.0182	.0062	1.5217	3.0000	246.0000	.2094
<b>Role</b>	- Teachers Support	<b>.2399</b>	<b>.0575</b>	<b>.0460</b>	<b>5.0061</b>	<b>3.0000</b>	<b>246.0000</b>	<b>.0022</b>
<b>Role</b>	- Classmates Support	<b>.3093</b>	<b>.0956</b>	<b>.0846</b>	<b>8.6714</b>	<b>3.0000</b>	<b>246.0000</b>	<b>.0000</b>
Role	- Close Friend Support	.0550	.0030	-.0091	.2488	3.0000	246.0000	.8622
Role	- School Support	.1561	.0244	.0125	2.0476	3.0000	246.0000	.1078
<b>Role</b>	- Classmates Justice	<b>.3969</b>	<b>.1575</b>	<b>.1472</b>	<b>15.3295</b>	<b>3.0000</b>	<b>246.0000</b>	<b>.0000</b>
Role	- Teachers Justice	.1142	.0130	.0010	1.0841	3.0000	246.0000	.3564
Role	- Parents Justice	.1240	.0154	.0034	1.2809	3.0000	246.0000	.2815
<b>Role + Mediators</b>	- Life Satisfaction	<b>.6392</b>	<b>.4086</b>	<b>.3812</b>	<b>14.9473</b>	<b>11.0000</b>	<b>238.0000</b>	<b>.0000</b>

Only the indirect effect through parents support can be considered relevant ( $p < 0.05$ ) (view Table 13). The results indicate that the relationship between role and life satisfaction is explained by the perception of parents' support scores. More specifically the results indicate that the relationship between being a bully-victim is negatively related to life satisfaction and that this relationship is mediated by the perception of low support from parents.

Table 13. Indirect effects coefficients (role – life satisfaction)

			Effect	SE(boot)	LLCI	ULCI
Parents Support	Victim	D1	-.0616	.0695	-.2109	.0675
	Bully	D2	-.1358	.0834	-.3236	.0109
	Bully-Victim	D3	-.1322*	.0759	-.3086	-.0050



Teachers Support	Victim	D1	-.0107	.0211	-.0823	.0141
	Bully	D2	-.0338	.0509	-.1456	.0617
	Bully-Victim	D3	-.0098	.0198	-.0789	.0139
Classmates Support	Victim	D1	-.0680	.0509	-.1928	.0116
	Bully	D2	.0207	.0292	-.0114	.1148
	Bully-Victim	D3	-.0523	.0428	-.1688	.0060
Close Friend Support	Victim	D1	.0010	.0125	-.0156	.0410
	Bully	D2	-.0011	.0129	-.0365	.0192
	Bully-Victim	D3	.0039	.0154	-.0126	.0603
School Support	Victim	D1	-.0162	.0285	-.1063	.0210
	Bully	D2	.0014	.0164	-.0218	.0527
	Bully-Victim	D3	-.0129	.0251	-.1045	.0151
Classmates Justice	Victim	D1	-.0332	.0656	-.1760	.0874
	Bully	D2	.0136	.0296	-.0311	.0958
	Bully-Victim	D3	-.0156	.0350	-.1145	.0345
Teachers Justice	Victim	D1	-.0134	.0347	-.1046	.0429
	Bully	D2	.0402	.0394	-.0134	.1538
	Bully-Victim	D3	-.0135	.0358	-.1067	.0426
Parents Justice	Victim	D1	-.0298	.0295	-.1248	.0045
	Bully	D2	-.0313	.0321	-.1364	.0054
	Bully-Victim	D3	-.0415	.0342	-.1455	.0013

Note: Non-involved as the reference category.

#### *Mediation effects between role and affect balance*

Table 14 shows the model summary for each regression model calculated. As showed in the previous section, role has a significant impact on affect balance, teachers support, classmates support and classmates justice scores.

Table 14. Model summary (affect balance)

Paths	R	R-sq	Adj R-sq	F	df1	df2	p
<b>Role - Affective Balance</b>	<b>.3527</b>	<b>.1244</b>	<b>.1137</b>	<b>11.6021</b>	<b>3.0000</b>	<b>245.0000</b>	<b>.0000</b>
Role - Parents Support	.1406	.0198	.0078	1.6470	3.0000	245.0000	.1791
<b>Role - Teachers Support</b>	<b>.2385</b>	<b>.0569</b>	<b>.0453</b>	<b>4.9236</b>	<b>3.0000</b>	<b>245.0000</b>	<b>.0024</b>
<b>Role - Classmates Support</b>	<b>.3104</b>	<b>.0964</b>	<b>.0853</b>	<b>8.7083</b>	<b>3.0000</b>	<b>245.0000</b>	<b>.0000</b>
Role - Close Friend Support	.0620	.0038	-.0084	.3151	3.0000	245.0000	.8144
Role - School Support	.1542	.0238	.0118	1.9890	3.0000	245.0000	.1162
<b>Role - Classmates Justice</b>	<b>.3975</b>	<b>.1580</b>	<b>.1477</b>	<b>15.3258</b>	<b>3.0000</b>	<b>245.0000</b>	<b>.0000</b>
Role - Teachers Justice	.1143	.0131	.0010	1.0815	3.0000	245.0000	.3575
Role - Parents Justice	.1319	.0174	.0054	1.4449	3.0000	245.0000	.2303
<b>Role + Mediators - Affective Balance</b>	<b>.6148</b>	<b>.3780</b>	<b>.3491</b>	<b>13.0941</b>	<b>11.0000</b>	<b>237.0000</b>	<b>.0000</b>

According to the authors, the results inform about statistically relevant indirect effects ( $p < 0.05$ ) through parents support, teachers support, classmates justice and parents justice (view Table 15). These dimensions of social support and justice perceptions explain the relationship between role and affect balance. More specifically, the results show that between being a victim is negatively related to affect balance and that this relationship is mediated by the perception that classmates are less just; that being a bully-victim is negatively related to affect balance and that this relationship is mediated by the perception of low support from parents, and that classmates and parents are less just; and finally, that being a bully is negatively related to affect balance and this relationship is mediated by the perception of low support from teachers.

Table 15. Indirect effects coefficients (role - affect balance)

		Effect	SE(boot)	LLCI	ULCI	
Parents Support	Victim	D1	-.0482	.0508	-.1668	.0375
	Bully	D2	-.1005	.0634	-.2531	.0009
	Bully-Victims	D3	-.0979*	.0598	-.2487	-.0077

Teachers Support	Victim	D1	-.0302	.0299	-.1241	.0057
	Bully	D2	-.0958*	.0545	-.2352	-.0126
	Bully-Victims	D3	-.0274	.0293	-.1153	.0109
Classmates Support	Victim	D1	-.0719	.0481	-.1905	.0003
	Bully	D2	.0207	.0278	-.0128	.1115
	Bully-Victims	D3	-.0555	.0422	-.1684	.0003
Close Friend Support	Victim	D1	.0029	.0146	-.0145	.0543
	Bully	D2	.0000	.0142	-.0300	.0318
	Bully-Victims	D3	.0069	.0178	-.0117	.0713
School Support	Victim	D1	-.0237	.0284	-.1121	.0092
	Bully	D2	.0026	.0191	-.0254	.0601
	Bully-Victims	D3	-.0188	.0252	-.1013	.0098
Classmates Justice	Victim	D1	-.0995*	.0607	-.2507	-.0049
	Bully	D2	.0398	.0321	-.0003	.1382
	Bully-Victims	D3	-.0473*	.0371	-.1576	-.0004
Teachers Justice	Victim	D1	-.0134	.0382	-.1097	.0488
	Bully	D2	.0442	.0420	-.0162	.1603
	Bully-Victims	D3	-.0135	.0393	-.1217	.0474
Parents Justice	Victim	D1	-.0510	.0421	-.1705	.0032
	Bully	D2	-.0533	.0458	-.1857	.0050
	Bully-Victims	D3	-.0694*	.0492	-.2084	-.0031

Note: Non-involved as reference category.

### *Mediation effects between role and self-esteem*

Table 16 shows the model summary for each regression model calculated. As already showed in the previous sections, the role has a significant impact on self-esteem, teachers support, classmates support and classmates justice scores.

Table 16. Model Summary (self-esteem)

Paths	R	R-sq	Adj R-sq	F	df1	df2	p
<b>Role</b> - Self-esteem	<b>.3977</b>	<b>.1582</b>	<b>.1479</b>	<b>15.4070</b>	<b>3.0000</b>	<b>246.0000</b>	<b>.0000</b>
Role - Parents Support	.1350	.0182	.0062	1.5217	3.0000	246.0000	.2094
<b>Role</b> - Teachers Support	<b>.2399</b>	<b>.0575</b>	<b>.0460</b>	<b>5.0061</b>	<b>3.0000</b>	<b>246.0000</b>	<b>.0022</b>
<b>Role</b> - Classmates Support	<b>.3093</b>	<b>.0956</b>	<b>.0846</b>	<b>8.6714</b>	<b>3.0000</b>	<b>246.0000</b>	<b>.0000</b>
Role - Close Friend Support	.0550	.0030	-.0091	.2488	3.0000	246.0000	.8622
Role - School Support	.1561	.0244	.0125	2.0476	3.0000	246.0000	.1078
<b>Role</b> - Classmates Justice	<b>.3969</b>	<b>.1575</b>	<b>.1472</b>	<b>15.3295</b>	<b>3.0000</b>	<b>246.0000</b>	<b>.0000</b>
Role - Teachers Justice	.1142	.0130	.0010	1.0841	3.0000	246.0000	.3564
Role - Parents Justice	.1240	.0154	.0034	1.2809	3.0000	246.0000	.2815
<b>Role + Mediators</b> - Self-esteem	<b>.6392</b>	<b>.4086</b>	<b>.3812</b>	<b>14.9473</b>	<b>11.0000</b>	<b>238.0000</b>	<b>.0000</b>

Indirect effects through parents support, teachers support and classmates justice can be considered relevant ( $p < 0.05$ ) (view Table 17). These dimensions of social support and justice perceptions apparently explain the relationship between the role and self-esteem. More specifically, the results indicate that being a victim is negatively related to self-esteem and that this relationship is mediated by the perception that classmates are less just; that being a bully-victim is negatively related to self-esteem and that this relationship is mediated by the perception of low support from parents, and that classmates and parents are less just; and finally, although being a bully is not related to self-esteem there is an indirect effect of the perception of low support from teachers.

Table 17. Indirect effects coefficients (role – self-esteem)

		Effect	SE(boot)	LLCI	ULCI	
Parents Support	Victim	D1	-.0305	.0368	-.1270	.0259
	Bully	D2	-.0671	.0491	-.1998	.0006
	Bully-victim	D3	-.0653*	.0469	-.1972	-.0029
Teachers Support	Victim	D1	-.0404	.0375	-.1494	.0056

	Bully	D2	-.1270*	.0636	-.2839	-.0274
	Bully-victim	D3	-.0368	.0376	-.1456	.0131
Classmates Support	Victim	D1	-.0674	.0460	-.1807	.0032
	Bully	D2	.0205	.0264	-.0117	.1024
	Bully-victim	D3	-.0518	.0395	-.1591	.0017
Close Friend Support	Victim	D1	.0009	.0123	-.0177	.0376
	Bully	D2	-.0009	.0125	-.0370	.0184
	Bully-victim	D3	.0033	.0148	-.0134	.0573
School Support	Victim	D1	-.0063	.0237	-.0720	.0299
	Bully	D2	.0005	.0127	-.0203	.0352
	Bully-victim	D3	-.0050	.0206	-.0715	.0225
Classmates Justice	Victim	D1	-.1865*	.0670	-.3500	-.0786
	Bully	D2	.0767	.0468	.0081	.1971
	Bully-victim	D3	-.0879*	.0506	-.2207	-.0136
Teachers Justice	Victim	D1	-.0153	.0399	-.1136	.0516
	Bully	D2	.0461	.0457	-.0210	.1662
	Bully-victim	D3	-.0154	.0400	-.1106	.0540
Parents Justice	Victim	D1	-.0546	.0425	-.1652	.0090
	Bully	D2	-.0572	.0462	-.1798	.0092
	Bully-victim	D3	-.0759*	.0473	-.2000	-.0077

Note: Non-involved as reference category.

## • DISCUSSION

The present study empirically tested our argument that bullying is a threat to the *need to belong*. We included variables related to perceived social support and justice perceptions that theoretically can be viewed as explaining the impact of being a victim

or a bully-victim on well-being. The hypotheses regarding our first objective were that: (h1) victims and bully-victims perceive less support from all sources than non-involved students; (h2) victims and bully-victims perceive classmates, teachers and parents as less just than non-involved students; and finally, that (h3) victims and bully-victims have lower life satisfaction, affect balance and self-esteem than non-involved students.

We were able to partially confirm hypotheses (h1) and (h2); and we were able to totally confirm hypothesis (h3). We found that victims and bully-victims perceived less support from classmates than non-involved students (h1), and that victims perceived classmates as less just than non-involved students (h2). Regarding well-being, we found that victims and bully-victims are less satisfied with their life, and have lower affect balance and self-esteem than non-involved students (h3). These results are very important to our argument since they point to the fact that both victims and bully-victims are indeed excluded from the peer group, and are at greater risk.

Overall our results reinforce our previous findings (Study 1 and Study 2). They are consistent with our theoretical framework and with the results that have been reported in the literature, namely that those who are victimized perceived less social support (Rigby, 2000), specifically: that victims and bully-victims perceived less support from their classmates than bullies and non-involved students (Demaray & Malecki, 2003). In what concerns well-being, previous findings have showed that victims are less satisfied with their lives than non-involved students (Flaspohler, et al., 2009), are more emotionally unstable (Tani et al., 2003), and are less happy and have lower self-esteem than defenders (Rigby & Slee, 1993; Salmivalli et al., 1999). It has also been shown previously that bully-victims were less satisfied with their lives than non-involved students (Estévez et al., 2009) and they were the group with the lowest self-esteem scores (O'Moore & Kirkham, 2001).

We also found that bullies perceived less support from teachers than all the other roles; on the other hand, they perceived more support from classmates than victims, and perceived classmates as more just than both victims and bully-victims. These results are unsurprising since previous literature mentions that bullies perceived less support teachers than non-involved students; and that they perceived more support from classmates than victims and bully-victims; (Demaray & Malecki, 2003). In what concerns well-being, we found that bullies have higher affect balance and self-esteem than victims and bully-victims, which again confirms previous findings that showed that bullies had higher self-esteem than bully-victims (O'Moore & Kirkham, 2001;

Pollastri, Cardemil, & O'Donnell, 2010). We did not find significant differences between roles regarding support from parents and school, which were previously found (Demaray & Malecki, 2003), or regarding parents and teachers justice. Considering that sex differences have been reported in some previous studies (e.g. Malecki & Demaray, 2003), we explored if this variable could influence the results of the present study. We did not find interaction effects between sex and roles but we did find that girls and boys differed regarding the variables under study. We found that girls perceived more support from close friends and perceived their teachers and classmates as more just than boys. On the other hand, boys had higher life satisfaction, affect balance and self-esteem. These results are also in line with the literature that describes that girls usually perceive more social support and tend to have lower well-being than boys (e.g. Craig, 1998; Demaray, et al., 2005; Holt & Espelage, 2007; Malecki & Demaray, 2002; Malecki & Demaray, 2003; Pouwelse et al., 2011; Rigby, 2000; Rigby & Slee, 1993). Nevertheless, it is important to note that these analyses reflect merely single results focused on social support, justice perceptions and well-being and no mechanisms were tested.

In the present study we further analyzed the role of social support and justice perceptions as mediators in the relationship between being a victim or a bully-victim and well-being. Our hypothesis regarding this second objective was that: (h4) perceived social support and justice perceptions mediate the relationship between being a victim or bully-victim and well-being. We found that one source of social support (parents) and two justice perceptions (classmates and parents) had an indirect (or mediation) effect<sup>45</sup>. Additionally, our results seem to be independent from being a girl or a boy since we did not find an interaction between sex and roles in bullying. We found that the relationship between being a victim and well-being (affect balance and self-esteem) was mediated by classmates justice. We also found that the relationship between being a bully-victim and well-being (all three indicators) was mediated by support from parents, and classmates and parents justice. Therefore, we were able to at least confirm

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<sup>45</sup> We will not describe indirect effects as partial or total in accordance with the recommendations of Hayes and Preacher (2013). According to these authors indirect effects should not be interpreted in terms “that rely on the outcome of tests of significance of the relative direct or total effects.” (p.13) (Hayes & Preacher, 2013) (see Hayes, 2013; and Rucker, Preacher, Tormala, & Petty, 2011; for further detail).

partially hypothesis 4. From these results we can also verify the relevance of parents and classmates to well-being of victims and bully-victims.

The results regarding parents confirm their decisive role on the development and well-being of children (Ben-Zur, 2003). In what concerns classmates, victims and bully-victims perceived less support from them (as reported by Malecki & Demaray, 2003) and they also perceived them as less just. This implies that they were not respected in the group (Tyler, 1994; Tyler et al., 1996; Tyler & Lind, 1992). In fact, a person that is treated justly by his/her peers is valued in the group (Huo et al., 2010). When a person is treated with respect he/she is also likely to feel included (Lind & Tyler, 1988). Along the same lines, the perception of social support from relevant others is associated with the feeling that one belongs (Cobb, 1976; Flaspohler et al., 2009; Huebner, Funk, & Gilman, 2000; Malecki & Demaray, 2002; Malecki et al., 2008; Pearson, 1986; Seeds et al., 2010). Taking this literature into account we consider that both results show that victims and bully-victims are excluded from the peer group. Since exclusion is negatively associated with well-being (DeWall et al., 2011; Gouveia-Pereira, 2008; Lind & Tyler, 1988) this can explain why we found that being a victim and bully-victim predicted lower well-being, and that this relationship was mediated by the perceptions of less support from relevant others and that they were less just. In other words, the deterioration of both these perceptions may indeed show that bullying causes exclusion and poses a threat to the need to belong (Cassidy, 2009; Feigenberg et al., 2008; Hawker & Boulton, 2000, Juvonen & Gross, 2005) and that is why bullying is negatively associated with well-being.

Although we did not have expectations regarding bullies, we also found that the relationship between being a bully and well-being (affect balance and self-esteem) was explained by social support (teachers). In other words, being a bully predicted lower affect balance and that relationship was mediated by the perception of low support from teachers. Although being a bully did not predicted self-esteem we did find an indirect effect of the perception of low teachers support. These results may seem to contradict the results from the previous analysis. However, we have to in mind that although that when compared to victims and bully-victims bullies do not have low well-being, when mediation effects were tested we used non-involved students as the comparison category. In this sense, although these results are in some extent surprising considering our argument, it is also plausible that due to their disruptive behaviour bullies experience trouble with teachers. This may prevent bullies from feeling supported by



teachers and may have some impact on their well-being (when compared to non-involved students). Along these lines we may conclude that bullying others may also threaten their need to belong. On the other hand, since bullies only perceive less support from teachers and since they perceive more support from classmates and perceive them as more just it is also possible that other mechanisms are at play here.

Contrary to our expectations we were not able to find mediation effects of perceived social support between being a victim and well-being. We consider that this may be related to the fact that we based our expectations in literature that established the mediator role of perceived social support and school or mental health (e.g. depression, Pouwelse et al., 2011; Seeds et al., 2010). This does not explain however, why we were able to find the mediator role of perceived social support regarding bully-victims (and also bullies) and well-being; and for that that reason this should be further explored in future studies.

## • CONCLUSIONS

The present findings show that victims and bully-victims are the opposites to non-involved students, in what concerns social support, justice perceptions and well-being. Overall the results can be discussed theoretically grounded on the *need to belong* argument. Taking into account what we found we consider that victims and bully-victims do experience a threat to their *need to belong*. The perception of low support from parents and the perception that classmates and parents are less just can be associated with feelings of non-belonging. In the same direction the fact they are less satisfied with their life, and have lower affect balance and self-esteem seems to be further evidence of this threat. Our results are not clear regarding bullies' *need to belong*. However, we consider that it is relevant and worth investigating in further detail.

Although that in general we were able to confirm our hypotheses, and despite the fact that we found interesting results, the present study has some limitations that have to be addressed. Similarly, to Study 1 and Study 2, the fact that we only used self-report measured raises the question of social desirability; and both the fact that we have a convenience sample and that the present study has a cross-sectional design prevent us from generalizing our results or drawing causal relationships. However, as mentioned earlier in this thesis self-report can give us precious information regarding how students perceive their own behavior (Kochenderfer-Ladd & Waldrop, 2001; Menesini et al.,

2009); and we interpreted our results taking into account previous research and our own previous findings that show that bullying is indeed negatively associated with well-being, and argue that it is more likely that bullying influences well-being and not otherwise.

In spite of the mentioned limitations we hope that our results can be replicated and contribute to both research on bullying; and practice regarding prevention and anti-bullying intervention. In fact, we consider that belonging can play a key role on understanding why people bully and also why being bullied is so prejudicial. Moreover, fostering feelings of belonging to school can help to both prevent and decrease bullying (by increasing compliance to school rules and the legitimation of school authorities) and may also buffer the negative impact of victimization on well-being.

## GENERAL DISCUSSION

To date it was well established in literature that bullying was associated with maladjustment and poor mental and physical health (Alikasifoglu et al., 2007; Due et al., 2005; Nansel et al., 2001; Nansel et al., 2004; Wilkins-Shurmer et al., 2003). Our three studies were consistent in showing that bullying is (also) negatively associated with positive indicators of well-being. In other words, bullying not only leads to more anxious and depressive students but also affects the way they evaluate their lives, and their happiness. This shows as suggested by well-being literature the importance of studying positive outcomes and not only negative ones (Fullchange & Furlong, 2016; Martin & Huebner, 2007). By including these indicators we were able to have a more accurate perspective of the negative impact of bullying. However, we felt the need to go further than just report differences between roles. In fact, there has been a lack of theoretical explanations to the differences between roles that have been widely reported in the literature and our last study aimed to fill this gap. We proposed and found evidence to a theoretical argument that explains why bullying is so pervasive and why those who are victimized have poorer well-being. In the present chapter we will discuss not only our main findings and implications but also address the limitations of our studies and how our results can contribute to the practice.

### *FINDINGS DISCUSSION AND MAJOR IMPLICATIONS*

In this thesis we intended to further explore the relationship between bullying and well-being; in particular, investigate the short and long-term effects of bullying on the well-being of all participant roles in bullying (**Study 1** and **Study 2**), and the role of justice perceptions and perceived social support as potential mediators (and indicators of the threat to *need to belong*) of this relationship (**Study 3**). Taking into account the gaps in literature we considered it was important to study the effect of bullying on positive indicators (e.g. subjective well-being dimensions) however, we also included other well-studied individual functioning variables in this area, such as self-esteem and school (or university) distress.

In general, our results confirm previous evidence about the difficulties experienced by victims, bully-victims and bullies. Furthermore, our results expand on the evidence

that being a victim in childhood and adolescence is related with later health-problems and well-being (Rigby, 2003), low self-esteem (Matsui et al., 1996; Schafer et al., 2004); and that being a bully in school has been associated with later well-being problems, particularly, at the workplace (Pepler et al., 2006). In **Study 1** and **Study 2**, victims revealed both short and long-term effects of bullying namely, lower positive affect (**Study 1**) and self-esteem than reinforcers. This is congruent with a well-established literature revealing the poorest psychological functioning and well-being of victims (namely, depression and low self-esteem, e.g. Bandeira & Hutz, 2010; Perren et al., 2010; Schneider et al., 2012). In **Study 2**, we also found that in general, bullies had lower well-being than reinforcers, defenders and outsiders. Specifically, we found they had lower life satisfaction than defenders; lower positive affect than reinforcers, defenders and outsiders; and lower self-esteem than reinforcers. In this sense, our results seem to suggest that bullies experience the adverse effects of bullying on their well-being only in the long-term (since we did not find significant results regarding them in **Study 1**). These results are somewhat unexpected given that previous research shows that bullies suffered both short (namely, by engaging in several anti-social behaviours or lower self-esteem than non-involved students, e.g. O'Moore & Kirkham, 2001; Nansel et al., 2001; 2003, Solberg & Olweus, 2003) and long-term (namely, engaging in violence and substance use, e.g. Kim, Catalano, Haggerty, & Abbott, 2011) effects of bullying. This is likely to be due to the fact that we have included different measures (positive indicators) than those that have been used in previous studies to assess the effects of bullying.

With regard to the other four participant roles, we observed that reinforcers stand out in the pro-bullying group and defenders do not stand out as much as we expected. This is both relatively to those who are most directly involved in bullying, such as victims or bullies (**Study 1**), or to other bystanders (**Study 1** and **Study 2**). We expected defenders to be the group with unquestionably the highest levels of well-being (namely, lower emotional instability and higher self-esteem, e.g. Rigby & Slee, 1993; Salmivalli et al., 1996; Tani et al., 2003). In other words, our findings seem to suggest that the pro-bullying roles are not a homogeneous group since only reinforcers revealed higher levels of well-being. Furthermore, defenders neither have as high levels of well-being as expected, nor do they have the highest well-being levels. We consider that these results show that pro-bullying roles should be studied with greater attention. In fact, and as mentioned before, Sutton and colleagues (1999) had already found that bullies

differed from assistants and reinforcers in the performance of a social cognition task. In what concerns defenders, such has been discussed previously in this thesis this finding may be evidence of the strain caused by taking sides with victims.

In **Study 3**, our results regarding well-being also show that both victims (and bully-victims) have lower well-being levels (namely, life satisfaction, affect balance and self-esteem) than non-involved students, and for bullies as well in almost all cases. These results confirmed the established notion in the literature that non-involved students are better adjusted than those who are more directly involved in bullying (victims, bully-victims and bullies) (e.g. Schneider et al., 2012; Undheim & Sund, 2010). In fact, they allowed us to confirm our own findings from the previous two studies as in general, we found that reinforcers, defenders and outsiders<sup>46</sup> are those who have higher well-being levels. Furthermore, these results also confirmed not only our previous findings that show that victims have the poorest well-being in the short-term, but also that bullies do not seem to suffer the short-term effects of bullying. With regard to perceived social support and justice perceptions, the results show that in general both victims and bully-victims perceive less support from classmates and perceive them as less just than bullies and non-involved students. This data is congruent with theoretical assumptions that suggest that victims and bully-victims perceive less social support (Flaspohler et al., 2009; Malecki & Demaray, 2003), which can be critical since the social support can be viewed as a resource to cope with bullying (Holt & Espelage, 2007). These are also in line with the justice literature. These results are very important because it is very likely that both victims and bully-victims do not feel as if they belong to the peer group since they do not perceive support from their classmates and also perceive classmates as less just (Lind & Tyler, 1988; Seeds et al., 2010). They also show that bullies perceive less support from teachers than all the other roles; and given the disruptive behaviour of bullies, these findings are unsurprising. In fact, there is evidence that shows bullies are more likely to receive less emotional support from parents and teachers (Flaspohler et al., 2009; Malecki & Demaray, 2003). Although these results are not surprising they do justify the relevance of raising the question if the lack of perceived support from

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<sup>46</sup> In Study 3, we used the involvement classification proposed by Olweus (1993); however, we consider that there is a parallelism between the non-involved group and the four additional participant roles in bullying proposed by Salmivalli and colleagues (1996), also often commonly referred as bystanders in the literature.

teachers may play an important role on bullies' sense of belonging to school. It could certainly be suggested, as perceived social support is associated with belonging (e.g. Malecki et al., 2008; Seeds et al., 2010). However, in order to answer this question with more certainty we have to look to the remaining results.

Finally, the mediation model from **Study 3** allowed us to explore our argument about the threat to the *need to belong*. Since this study has a cross-sectional nature we can't draw definitive conclusions regarding mediation (Fiedler, Schott, & Meiser, 2011). Nonetheless, we can analyse if our results are consistent with the expected mediation model and previous findings. We found that being a victim is negatively related with well-being (affect balance and self-esteem) through justice perceptions (classmates justice). We also found that being a bully-victim is related with well-being (life satisfaction, affect balance and self-esteem) through perceived social support (from parents) and justice perceptions (parents and classmates justice). In other words, our interpretation is that victims perceive their classmates as less just and therefore they have poorer affect balance and self-esteem. Along the same lines, bully-victims perceive low support from parents, and perceive them and classmates as less just and therefore have poorer life satisfaction, affect balance and self-esteem. We consider that these results can be interpreted following Seeds and colleagues (2010), who argued that stressful experiences affect youth's perception of effective social support, which can be associated with higher levels of depression. According to the *social support deterioration model* a stressful event makes it more difficult for an individual to perceive support (Kaniasty & Norris, 1993; Seeds & al., 2010). In this sense, based on this model and taking account our results, the victimization experience is related with the perception of non-availability of support from parents as well as with the perception that parents and classmates are less just, which in turn are associated with poorer well-being. This confirms and expands previous research that established an association between supportive relationships and higher levels of adjustment (e.g. Ahmed et al., 2010), and that being victimized hampers the ability of youth to be supported by a close network (Demaray & Malecki, 2003; Rigby, 2000).

However, these results also allow us to go further since perceived social support and justice perceptions were included in these analyses as indicators of the threat to the *need to belong*. Our argument was that bullying threatens the *need to belong* of those who are victimized, and that should be reflected on how both victim and bully-victims perceive social support and how just they perceive others to be. As mentioned above,

our results supported that it is through the deterioration of the perception of social support from others and of how justly they are treated that bullying erodes the well-being of those who are victimized, i.e., and these perceptions explain the negative relationship between bullying (in particular, being victimized) and well-being. In this sense we argue that bullying do hinders victims and bully-victims' *need to belong* to school and to the peer group and therefore, since they are unable to meet this motivation that has an effect on their well-being. One should bear in mind that the *need to belong* is a motivation to establish and maintain social ties with others; and the sense that one is part of a community or social group, i.e., the sense that we belong is intrinsically associated to one's well-being (e.g. Baumeister & Leary, 1995; DeWall et al., 2008; DeWall and Bushman, 2011; DeWall et al., 2011).

Although we did not propose that the *need to belong* of bullies is threatened by bullying we did include them in our analyses for exploratory purposes. We found that being a bully is negatively related with well-being (affect balance and self-esteem) through perceived social support (from teachers); i.e. bullies perceive low support from teachers and therefore they have poorer affect balance and self-esteem. This result may allow us to answer the question we raised above regarding bullies' sense of belonging. The perception of low support from teachers indeed explains the relationship between being a bully and lower well-being (however, it is important to remember that bullies only revealed lower well-being in these mediational analyses and only when compared to non-involved students). It may, as such, be questioned whether low perceived support from teachers will be an indicator of a threat to the need to belong of bullies, in this case to the school and not to the peer group. On the other hand, there may be a different type of mechanism than the one by which the well-being of those who are victimized is affected.

Regarding sex differences, our studies revealed that boys showed higher levels of school distress, self-esteem, life satisfaction and affect balance than girls, which is congruent with previous research (Bachman et al., 2011; Bolognini et al., 1996; Correia & Dalbert, 2007; Chubb et al., 1997). Also, girls revealed higher scores on perceived support from friends and teachers, as well as on classmates justice. These results are also in line with previous literature that describes that girls usually perceive more social support and tend to have lower well-being than boys (e.g. Craig, 1998; Demaray, et al., 2005; Holt & Espelage, 2007; Malecki & Demaray, 2002; Malecki & Demaray, 2003;

Pouwelse et al., 2011; Rigby, 2000; Rigby & Slee, 1993). Nevertheless, no interaction effects between sex and participant role in bullying were found regarding any variable.

In sum, in addition to showing that bullying has a negative relationship with well-being, our results may contribute to show how this relationship is established, namely through the threat to the need of belong of those who are victimized. This pattern of results is, therefore, consistent with the assumptions of the literature about the fact that bullying is a relationship problem (Pepler et al., 2006; Pepler, Jiang, Craig, & Connolly, 2008) and the importance of relationships for individual well-being, namely those developed with family and peers (Goswami, 2011). In particular, there is evidence that positive relationships are associated with higher well-being (Huebner, 1994); and that negative relationships are associated with lower psychological adjustment and subjective well-being (Ladd, Kochenderfer, & Coleman, 1996; Parker & Asher, 1993). This is in absolute accordance with our findings since bullying is indeed a negative way of relating to others that has a pervasive effect on those involved in it. Moreover, since previous research has been more focused on the psychopathological effects of bullying than on its impact on positive dimensions of functioning (with some interesting exceptions; e.g. Flouri & Buchanan, 2002; Martin & Huebner, 2007), our work can also be viewed as a contribution in that direction. The results suggest that the argument of a threat to the *need to belong* could be an interesting and innovative framework within which understand the dynamics of bullying, namely regarding victims and bully-victims' well-being. In what concerns bullies, our exploratory results are not conclusive, however; we consider that they are also a good contribution since they show that teachers may have a role in bullies' well-being that is worth investigating further.

### ***LIMITATIONS AND FUTURE DIRECTIONS***

In our studies we were able to find important data regarding the negative relationship between bullying and well-being, and also regarding a possible theoretical framework which helps explain this relationship. Even so, there are some limitations that must be addressed.

First of all, the theoretical argumentation of the present thesis and the interpretation of our empirical results are based on previous research that argues that school bullying has a pervasive and negative effect on students, particularly on those who are victimized



(e.g. Hase, Goldberg, Smith, Stuck, & Campaign, 2015). However, since research on bullying has mostly been cross-sectional (with very interesting and recent exceptions, e.g. Evans-Lacko et al., 2017; Reijntjes et al., 2013; Ttofi, Bowes, Farrington, & Lösel, 2014), it is important to also consider that the experience of victimization can be a consequence of mental health problems and not vice versa (Hodges & Perry, 1999). Our three studies also have a cross-sectional design and therefore we cannot definitely claim that bullying has a negative impact on well-being. Nevertheless, our results do consistently show that being more directly involved in bullying (in the past or present) is associated with poorer well-being and as such, similarly to previous research, we argue that this association shows that bullying has indeed short and long-term effects on well-being. Although our results reveal a consistent pattern we are also not able to investigate cross-lagged effects (Gollob & Reichardt, 1987) or to generalize our results because the samples of our three studies were selected by convenience. We are aware that conducting studies with cross-sectional designs and with convenience samples may limit the applicability of our results; and these methods were chosen due to time and logistic constraints. In spite of this, it is important to underline that, in general, our results confirm previous research and can also contribute to potential new avenues of bullying research. For example, future research should also continue to explore the differences in the pro-bullying group, particularly in regard coping strategies and other well-being indicators.

The exclusive use of self-report measures can also be a shortcoming of our studies due to shared method variance (the associations that we found between variables may be exaggerated because of the confounding between the measurement method and the behavior). This option also raises questions related to social desirability. For example, bullies and their followers may be reluctant to admit that they take part in bullying and victims may be ashamed to admit that they are targets of aggression. In **Study 1** and **Study 2** we used Participant Roles Questionnaire solely as a self-report measure although this questionnaire has been used simultaneously as a self and peer-report measure (e.g. Salmivalli et al., 1996). In spite of this, it has been found that self-report role scores were positively and significantly correlated with their corresponding peer-report role scores (Salmivalli et al., 1996); and self-report measures can be very useful because they allow access to relevant data regarding students' "awareness of their own behavior" (p. 129) (Kochenderfer-Ladd & Waldrop, 2001; Menesini et al., 2009). The fact that we measured behavior in bullying with only two items in **Study 3** may also be

problematic. Moreover, we asked participants directly if they were bullies and/or victims, which may have made even more difficult for participants to admit their role due to social desirability. However, these two items were very similar to these have been used in previous studies, and they all have produced consistent results (e.g. Chaux, Molano, & Podlesky, 2009; Fekkes, Pijpers, & Verloove-Vanhorick, 2005; Solberg & Olweus, 2003). We suggest that future studies should include not only self-report, but also teacher and/or peer-report measures to avoid shared method variance and, as suggested by Sutton and Smith (1999), to compare the results obtained with different informants.

We did not validate Participant Roles Questionnaire to the Portuguese population (**Study 1**); and we used an adaption of this questionnaire to measure bullying retrospectively that has also not been validated (**Study 2**). This may have had an influence on our results. In fact, in both **Study 1** and **Study 2** we had problems related with the reliability of two of the sub-scales (outsiders and assistants). We decided to include these scales in our analyses nonetheless, because they were part of the questionnaire and excluding them would imply ignoring the existence of those roles. However, we were careful regarding our data analysis, and we did not discuss those differences as a consequence of those internal consistency fragilities. In the future, it would be pertinent to develop studies in order to validate Participant Roles Questionnaire to the Portuguese population and to retrospective bullying experiences.

The validity of the recollection of school bullying itself (**Study 2**) can also be questioned since there has been some debate in the literature regarding possible bias on retrospective reports (e.g. Hardt & Rutter, 2004). Moreover, it is not possible to control the initial levels of the dependent variable. However, researchers have argued that adults tend to remember childhood victimization experiences with particular accuracy; that these memories tend to be stable (Brewin, Andrews, & Gotlib, 1993; Olweus, 1993b; Rivers, 2001) and that people are likely to recall these type of recollections accurately because they involve emotions that have an impact on well-being and because bullying appears to be an unexpected event in one's life (Berscheid, 1994; Brewin et al., 1993; Smith et al., 2003). Despite the controversy, some of those who raised concern regarding this methodology also recognize that individuals' recollections are valuable informational resources (e.g. perception of their lives, their feelings and relationships, etc.) (Offer et al., 2000). There are also other particular aspects of our retrospective study that have to be discussed. We asked participants to

remember their school life in general without asking them about any specific life-span (e.g. secondary school) or mentioning the severity or chronicity of the bullying incidents. The lack of definition of a specific life-span makes it impossible to know what period students are recalling and it is very likely that participants may have recalled more accurately the more chronic and severe incidents. Also no potential confounding variables such as participants' present bullying experiences were controlled for. Despite these facts, we were able to find similar results to those found by previous retrospective bullying research, which shows consistency. Future retrospective studies should ask clearly what period of their school life students should recall and be more precise about what kind of incidents (e.g. only serious incidents vs. moderate incidents; only chronic incidents vs. sporadic incidents).

Finally, in **Study 3**, although we found empirical data that seems to support our argument we have to consider that we did not measure objectively the *need to belong*. In other words, we measured it through variables that have been associated in the literature with the *need to belong*, social support and justice perceptions (Allen et al., 2016; Umlauft et al., 2009). For the sake of our argument it would be very important to replicate our results with a measure that assessed the threat to the *need to belong* more directly. We consider that bullying research can benefit from the contributions of research of other areas such as social psychology and use them as resource to explain its empirical findings. This would allow researchers to go beyond prevalence studies and reporting the negative impact of bullying and actually understand the mechanisms and conditions through which bullying damages well-being, contributes to psychological disorders and poor physical health. In fact, there already some studies that explored the intersection between these two research areas and reported very interesting findings. Theories such as the *need to belong* (e.g. Olthof & Goossens, 2008; Underwood & Ehrenreich, 2014), *social identity* (Thornber, 2015) or the *dominance theory* (e.g. Goodboy, Martin, & Rittenour, 2016) can also help to understand the behavior of roles in bullying and why students assume certain roles and not others.

To summarize and conclude, despite these limitations we were still able to find results that (at least) partially confirmed our expectations and to expand previous research. In **Study 1** and **Study 2**, we were able to find that those who are or were more directly involved in bullying had lower levels of well-being. We not only compared them to the other participant roles in bullying (which to our best knowledge have never been studied retrospectively) but also included almost exclusively only positive well-

being indicators, which has not been done very often before. We consider that the results from both studies are interesting and bring some novelty to the area. However, in order to strengthen our findings, it is necessary to replicate them to address some of the limitations that we have listed above, namely to include multiple informants, validate the questionnaire to our population, or define a precise school life period to investigate bullying incidents retrospectively. We were also able to contribute theoretically to this field by framing bullying as a threat to *need to belong*, in **Study 3**. Nevertheless, we are aware that our argument still needs further empirical support. It would be very interesting to try to replicate our results in a longitudinal study and with a representative sample. This would allow drawing definitive causal relations, to generalize and consolidate our argument.

### ***IMPLICATIONS FOR INTERVENTION AND PRACTICE***

Our hope is that the major findings of our three studies can contribute to the practice and policy on bullying namely, considering the plan and the design of interventions focused on the impact of these incidents. We consider that the more we know about all of those who are directly or indirectly involved in bullying, the more effective the efforts will be to prevent it and the more successful we will be in educating happy and balanced children. The studies presented in this thesis show precisely the existing differences between roles regarding their well-being and we argue that they should be considered in the design of the interventions. It has already been established that interventions should address the whole group (Burns, Maycock, Cross, & Brown, 2008; Salmivalli, 1999); however, based on our results, we propose that they should also take into account the specificities of each role.

We consider that the differentiated impact of bullying on those who are victimized, and on those who bully, can provide important insights regarding the intervention that should be provided. Programs should include specific skills training that help victims become more assertive in expressing their problems and emotions, which can promote their subjective well-being and restore their self-esteem. We also consider that interventions should ensure that those who are victimized perceive adequate social support and are respected in the peer group (which should reflect on their justice

perceptions). Programs that involve befriending schemes and peer mediation (Cowie, 2011; Cowie & Hutson, 2005) can help to achieve this purpose and therefore contribute, to eliminate, or buffer the association between being bullied and poor well-being. Bullies can also be trained to develop social skills that can help them establish healthier relationships with their peers and that don't involve hurting them. Programs should enable bullies to learn about the negative effects of their behaviour and to adopt non-violent forms of relating with their peers, which should contribute to making school a safer and more positive place.

The non-involved students have a crucial role in interventions programs since they are more adjusted and possess more social skills (Flaspohler et al., 2009). They are also accepted in the peer group (the fact that they perceive support from classmates and also perceive them as just indicate that) and do not have to bully others in order to be accepted. For example, defenders can provide support for those who are victimized and reinforcers (taking to account our results) can be encouraged to behave prosocially (which should have repercussions on the dynamics of bullying because bullies would no longer have as much support). Both defenders and reinforcers can also be peer role-models for other students. Taking into account previous findings and our own, we argue that both defenders and reinforcers might play a key role in the promotion of a positive school climate in which outsiders feel motivated to intervene and take a stand against bullying.

Although intervention efforts may be mainly focused on students our results show that parents, teachers and school can also be a great asset in preventing and combating bullying. School authorities and parents should work together with students in creating a school that not only does not tolerate bullying but also a school in which everyone feels that they belong to and nobody feels excluded from. Programs should therefore create mechanisms that facilitate signaling and increasing the social status of those who are in risk of exclusion and provide social support to those who need it the most. We believe that programs that take into account these suggestions are more likely to succeed both in preventing and combating bullying since they not only include the entire school community but also take into account the process through which bullying erodes well-being. We hope that this particularity that differentiates the type of program that we propose may allow intervening in the process itself and not only after the negative effects have consolidated, thus minimizing the short-term effects of bullying and contribute to avoid that students continue to experience this effects until adulthood.

With regards, to the long-term effects of bullying we hope that our findings can also have a contribution. For example, practitioners may be able to work with former victims, bully-victims and bullies in order to develop social skills that enable them to develop healthy bonds with others, to establish relationships based on mutual trust and aid; and also to increase their sense of belonging to a community. Although we did not explore our argument regarding retrospective bullying the need to belong is a universal drive and for that reason it is also likely that those who once felt this need threatened when they were at school may also benefit from efforts to ensure and reinforce it as adults. In fact, this may be an important new direction for longitudinal research – to explore if victims and bully-victims (in particular chronic) feel their need to belong threatened not only when they are involved in bullying incidents at school, but also as they grow up.

School should be a place where every student feels safe, included and that he or she belongs to. However, as shown throughout the present thesis the effects of school bullying are a great barrier to this goal. It is a very serious social problem that can have an impact not only to individuals and to their communities (Nansel et al., 2004), but it can also have great costs to society since it may imply higher expenses to the justice and health care systems (Craig & Pepler, 2007; Pepler, et al., 2008; Rigby, 2003). According to Morrison (2006) “Positive youth development is central to the development of civil society (Lerner, 2000; Morrison, 2001). School bullying, through the systematic abuse of power, hinders positive youth development (Peterson, 2004).” (p. 371). We consider that is our mission as researchers and practitioners to combat this abuse and to contribute to children and adolescents having access to a school where they are respected for being who they are and in which they can reach their full potential.

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# APPENDICES



1	Os meus amigos são muitas vezes injustos comigo.	1	2	3	4	5	6
2	Na minha vida a injustiça é a exceção e não a regra.	1	2	3	4	5	6
3	Basicamente, o mundo em que vivemos é justo.	1	2	3	4	5	6
4	Sou muitas vezes tratado de forma injusta pelos meus amigos.	1	2	3	4	5	6
5	Acho que a maior parte do que me acontece é justo.	1	2	3	4	5	6
		<b>DISCORDO COMPLETAMENTE</b>	<b>DISCORDO</b>	<b>DISCORDO LIGEIRAMENTE</b>	<b>CONCORDO LIGEIRAMENTE</b>	<b>CONCORDO</b>	<b>CONCORDO COMPLETAMENTE</b>
6	De um modo geral os acontecimentos da minha vida são justos.	1	2	3	4	5	6
7	Para os meus amigos as injustiças são a exceção e não a regra.	1	2	3	4	5	6
8	As decisões que os outros tomam em relação a mim são justas.	1	2	3	4	5	6
9	Geralmente, os meus amigos tratam-me de uma forma justa.	1	2	3	4	5	6
10	Acho que geralmente obtenho o que mereço.	1	2	3	4	5	6
11	Geralmente os outros tratam-me de uma maneira justa.	1	2	3	4	5	6
12	Os meus amigos comportam-se frequentemente de forma injusta comigo.	1	2	3	4	5	6
13	As injustiças em todas as áreas da vida (por exemplo, profissão, família, política) constituem uma exceção à regra.	1	2	3	4	5	6
14	Ao longo da vida as pessoas acabam por ser compensadas pelas injustiças sofridas.	1	2	3	4	5	6
15	De uma maneira geral, as pessoas merecem aquilo que lhes acontece.	1	2	3	4	5	6

16	A justiça vence sempre a injustiça.	1	2	3	4	5	6
17	Em geral eu mereço o que me acontece.	1	2	3	4	5	6
18	Os meus amigos muitas vezes julgam-me de modo injusto.	1	2	3	4	5	6
19	As pessoas tentam ser justas quando tomam decisões importantes.	1	2	3	4	5	6
20	Os meus amigos tentam ser justos quando tomam decisões importantes em relação a mim.	1	2	3	4	5	6
21	Geralmente, os meus professores tratam-me de uma forma justa.	1	2	3	4	5	6
22	Na escola, existem apenas algumas coisas de que eu gosto.	1	2	3	4	5	6
23	As minhas notas finais são geralmente consequência do meu comportamento e não dos resultados dos testes.	1	2	3	4	5	6
24	Se eu tiver que resolver um exercício difícil no quadro, acredito que sou capaz de fazê-lo.	1	2	3	4	5	6
25	Tenho a certeza que consigo atingir os objectivos escolares pretendidos, mesmo que de vez em quando tenha uma nota baixa.	1	2	3	4	5	6
26	Seria bom se eu nunca mais fosse obrigado a ir à escola.	1	2	3	4	5	6
		<b>DISCORDO COMPLETAMENTE</b>	<b>DISCORDO</b>	<b>DISCORDO LIGEIRAMENTE</b>	<b>CONCORDO LIGEIRAMENTE</b>	<b>CONCORDO</b>	<b>CONCORDO COMPLETAMENTE</b>
27	Para mim, é fácil perceber matérias novas durante as aulas.	1	2	3	4	5	6
28	É bom regressar à escola, mesmo que as férias tenham sido agradáveis.	1	2	3	4	5	6
29	Os meus professores dão-me frequentemente notas injustas.	1	2	3	4	5	6
30	Eu gosto de ir à escola.	1	2	3	4	5	6
31	Os meus professores são muitas vezes injustos comigo.	1	2	3	4	5	6

32	Se o professor der a matéria mais rápido, não vou ser capaz de atingir os resultados	1	2	3	4	5	6
33	Durante as aulas, se me esforçar sou capaz de resolver até as tarefas mais difíceis.	1	2	3	4	5	6
34	Geralmente, eu mereço as notas que recebo.	1	2	3	4	5	6
35	Mesmo que estivesse doente durante um longo período de tempo, seria capaz de alcançar bons resultados escolares.	1	2	3	4	5	6
36	As decisões que os professores tomam sobre mim são geralmente justas.	1	2	3	4	5	6
37	De manhã, basta pensar na escola para ficar angustiado.	1	2	3	4	5	6
38	Mesmo que o professor duvide das minhas capacidades, tenho a certeza de que consigo obter bons resultados escolares.	1	2	3	4	5	6
39	Os meus professores comportam-se frequentemente de forma injusta comigo.	1	2	3	4	5	6
40	De um modo geral, sinto-me contente por ainda andar na escola.	1	2	3	4	5	6
41	Muitas vezes, os professores tentam prejudicar-me nos testes.	1	2	3	4	5	6
42	Sou muitas vezes tratado de forma injusta pelos meus professores.	1	2	3	4	5	6
43	Quando penso na minha vida até agora, vejo que consegui alcançar grande parte dos meus objectivos.	1	2	3	4	5	6
44	Tenho uma atitude positiva em relação a mim próprio.	1	2	3	4	5	6
45	Eu estou satisfeito com a minha situação.	1	2	3	4	5	6
46	A minha vida dificilmente poderia ser mais feliz do que é.	1	2	3	4	5	6
47	Quando penso na minha vida até agora, sinto-me satisfeito.	1	2	3	4	5	6
48	Eu acredito que a maioria dos meus desejos se irá concretizar	1	2	3	4	5	6



		<b>DISCORDO COMPLETAMENTE</b>	<b>DISCORDO</b>	<b>DISCORDO LIGEIRAMENTE</b>	<b>CONCORDO LIGEIRAMENTE</b>	<b>CONCORDO</b>	<b>CONCORDO COMPLETAMENTE</b>
49	Eu estou satisfeito com a minha vida.	1	2	3	4	5	6
50	Penso que o tempo trará experiências mais interessantes e agradáveis.	1	2	3	4	5	6
51	Globalmente, acho que sou um falhado.	1	2	3	4	5	6
52	Em geral, estou satisfeito comigo mesmo.	1	2	3	4	5	6
53	Por vezes penso que não presto para nada.	1	2	3	4	5	6
54	Sou tão capaz de fazer coisas como a maior parte das outras pessoas.	1	2	3	4	5	6
55	Por vezes sinto-me inútil.	1	2	3	4	5	6
56	Gostava de ter mais respeito por mim próprio.	1	2	3	4	5	6
57	Em geral, estou satisfeito comigo mesmo.	1	2	3	4	5	6
58	Por vezes penso que não presto para nada.	1	2	3	4	5	6
59	Sou tão capaz de fazer coisas como a maior parte das outras pessoas.	1	2	3	4	5	6
60	Sinto que sou uma pessoa de valor, pelo menos ao mesmo nível que os outros.	1	2	3	4	5	6
61	Sinto que não tenho muito de que me orgulhar.	1	2	3	4	5	6
62	Acho que tenho algumas boas qualidades.	1	2	3	4	5	6
63	Geralmente os meus pais tratam-me justamente/com justiça.	1	2	3	4	5	6
64	Eu sou muitas vezes injustamente tratado pelos meus pais.	1	2	3	4	5	6

65	Geralmente as decisões importantes que os meus pais tomam sobre mim são justas.	1	2	3	4	5	6
66	Os meus pais julgam-me muitas vezes injustamente.	1	2	3	4	5	6
67	Os meus pais comportam-se muitas vezes injustamente para comigo.	1	2	3	4	5	6
68	Os meus pais são muitas vezes injustos para comigo.	1	2	3	4	5	6
69	As injustiças por parte dos meus pais são a exceção em vez da regra.	1	2	3	4	5	6
70	Com os meus pais, a justiça vence sempre a injustiça.	1	2	3	4	5	6
71	Geralmente eu sinto-me bastante feliz.	1	2	3	4	5	6
72	Geralmente eu tendo a olhar para o lado bom da vida.	1	2	3	4	5	6
		<b>DISCORDO COMPLETAMENTE</b>	<b>DISCORDO</b>	<b>DISCORDO LIGEIRAMENTE</b>	<b>CONCORDO LIGEIRAMENTE</b>	<b>CONCORDO</b>	<b>CONCORDO COMPLETAMENTE</b>
73	Raramente estou mesmo “na maior”.	1	2	3	4	5	6
74	Geralmente eu sinto-me como se fosse rebentar de alegria.	1	2	3	4	5	6
75	Eu considero-me uma pessoa feliz.	1	2	3	4	5	6
76	Eu não sou tão feliz como a maioria das pessoas.	1	2	3	4	5	6

Agora iremos fazer algumas questões sobre a tua experiência de **BULLYING** sendo importante que compreendas o que este termo significa.

Os comportamentos de **Bullying** são praticados por uma pessoa ou por um grupo, e repetem-se durante algum tempo com a intenção de magoar, ameaçar ou meter medo a outra pessoa, fazendo-a sofrer. O **bullying** é diferente de outros comportamentos agressivos porque é praticado por alguém mais forte ou com mais poder que aproveita o desequilíbrio de poder para pôr a vítima indefesa. Existem várias formas de bullying: bater, empurrar, agarrar, perseguir, gozar, fazer piadas, chamar nomes, dizer mentiras acerca da pessoa, deixar de falar e ignorar, pôr de parte e excluir dos grupos e brincadeiras.

**Agora diz-nos, com que frequência cada uma das seguintes frases é verdadeira para ti?**

		NUNCA	RARAMENTE	POUCAS VEZES	ALGUMAS VEZES	MUITAS VEZES	MUITÍSSIMAS VEZES
1	Tento resolver as diferenças através do diálogo.	1	2	3	4	5	6
2	Digo aos outros: “Ele/a é tão estúpido/a que é bem-feito ser agredido/a”	1	2	3	4	5	6
3	Os(As) outros rapazes/raparigas(as) implicam comigo.	1	2	3	4	5	6
4	Eu sou empurrado e agredido por outros rapazes/raparigas.	1	2	3	4	5	6
5	Sou amigo da vítima durante o tempo de intervalo.	1	2	3	4	5	6
6	Junto-me ao bullying quando os outros me dizem para o fazer.	1	2	3	4	5	6
7	Junto-me ao bullying quando outra pessoa o começou.	1	2	3	4	5	6
8	Agarro a vítima enquanto esta é agredida.	1	2	3	4	5	6
9	Dou gargalhadas.	1	2	3	4	5	6
10	Vingo-me do agressor pela vítima.	1	2	3	4	5	6

11	Fico fora da situação.	1	2	3	4	5	6
12	Nem sequer sei da existência do bullying.	1	2	3	4	5	6
13	Digo aos outros que o bullying é estúpido.	1	2	3	4	5	6
14	Ataco o agressor para defender a vítima.	1	2	3	4	5	6
15	Chamo nomes aos agressores para defender a vítima.	1	2	3	4	5	6
		<b>NUNCA</b>	<b>RARAMENTE</b>	<b>POUCAS VEZES</b>	<b>ALGUMAS VEZES</b>	<b>MUITAS VEZES</b>	<b>MUITISSIMAS VEZES</b>
16	Trago mais pessoas para a situação de bullying.	1	2	3	4	5	6
17	Chamo “meninos da mamã” a quem não participa no bullying.	1	2	3	4	5	6
18	Conforto a vítima na situação de bullying.	1	2	3	4	5	6
19	Digo aos outros que o agressor é estúpido.	1	2	3	4	5	6
20	Os outros rapazes/raparigas chamam-me nomes.	1	2	3	4	5	6
21	Vou para longe do local.	1	2	3	4	5	6
22	Incito o agressor através de gritos.	1	2	3	4	5	6
23	Digo aos outros para pararem o bullying.	1	2	3	4	5	6
24	Faço sugestões sobre como agredir alguém.	1	2	3	4	5	6
25	Digo à vítima: “Não te preocupes com eles”.	1	2	3	4	5	6
26	Digo aos outros para não serem amigos da vítima.	1	2	3	4	5	6
27	Vou ver a situação.	1	2	3	4	5	6
28	Fico com a vítima durante os intervalos.	1	2	3	4	5	6

29	Começo o bullying.	1	2	3	4	5	6
30	Fico perto e observo.	1	2	3	4	5	6
31	Eu sou gozado por outros(as) rapazes/raparigas(as).	1	2	3	4	5	6
32	Faço comentários irónicos sobre a vítima.	1	2	3	4	5	6
33	Digo aos outros que não compensa participar no bullying.	1	2	3	4	5	6
34	Digo aos outros: “Venham ver, alguém está a ser agredido ali”.	1	2	3	4	5	6
35	Não faço nada.	1	2	3	4	5	6
36	Ajudo o agressor.	1	2	3	4	5	6
37	Ameaço que vou contar ao professor, se os outros não pararem com o bullying.	1	2	3	4	5	6
38	Conforto a vítima depois.	1	2	3	4	5	6
39	Encorajo a vítima a contar o bullying ao professor.	1	2	3	4	5	6
40	Vou falar com o professor sobre o bullying.	1	2	3	4	5	6
41	Incentivo os outros a agredir a vítima.	1	2	3	4	5	6
		<b>NUNCA</b>	<b>RARAMENTE</b>	<b>POUCAS VEZES</b>	<b>ALGUMAS VEZES</b>	<b>MUITAS VEZES</b>	<b>MUITISSIMAS VEZES</b>
42	Encontro sempre novas formas de agredir a vítima.	1	2	3	4	5	6
43	Conto a algum adulto o caso de bullying.	1	2	3	4	5	6
44	Tento fazer com que os outros parem com o bullying.	1	2	3	4	5	6
45	Chamo pessoas para ajudarem a vítima.	1	2	3	4	5	6

46	Vou chamar o professor responsável.	1	2	3	4	5	6
47	Normalmente estou presente mesmo que não esteja a fazer nada.	1	2	3	4	5	6
48	Finjo que não me apercebi do que está a acontecer.	1	2	3	4	5	6
49	Apanho a vítima.	1	2	3	4	5	6
50	Faço com que os outros se juntem ao bullying.	1	2	3	4	5	6
51	Não fico do lado de ninguém.	1	2	3	4	5	6
52	Digo ao agressor: “Mostra-lhe”.	1	2	3	4	5	6
53	Rio-me.	1	2	3	4	5	6
54	Geralmente, não estou presente.	1	2	3	4	5	6

## APPENDIX B

### Levene's Test of Equality of Error Variances<sup>a</sup>

	F	df1	df2	Sig.
Satisfacao	1,694	11	297	,074
Mood	1,324	11	297	,210
School_distress	,919	11	297	,522
Autoestima	1,176	11	297	,303

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Role\_f + sexo + Role\_f \* sexo

### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ZRE_1 Standardized Residual for Satisfacao	,051	309	,055	,986	309	,005
ZRE_2 Standardized Residual for Mood	,075	309	,000	,973	309	,000
ZRE_3 Standardized Residual for School_distress	,068	309	,002	,977	309	,000
ZRE_4 Standardized Residual for Autoestima	,066	309	,003	,969	309	,000

a. Lilliefors Significance Correction

## APPENDIX C

### STUDY 1

#### Non-Parametric Tests

##### A.SEX

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Satisfacao is the same across categories of sexo.	Independent-Samples Kruskal-Wallis Test	,418	Retain the null hypothesis.
2	The distribution of Mood is the same across categories of sexo.	Independent-Samples Kruskal-Wallis Test	,352	Retain the null hypothesis.
3	The distribution of School_distress is the same across categories of sexo.	Independent-Samples Kruskal-Wallis Test	,002	Reject the null hypothesis.
4	The distribution of Autoestima is the same across categories of sexo.	Independent-Samples Kruskal-Wallis Test	,001	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

##### B.ROLE

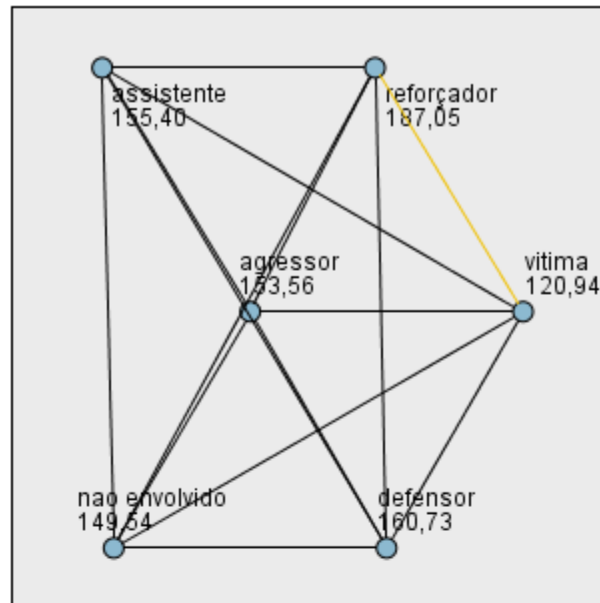
**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Satisfacao is the same across categories of Participation roles.	Independent-Samples Kruskal-Wallis Test	,677	Retain the null hypothesis.
2	The distribution of Mood is the same across categories of Participation roles.	Independent-Samples Kruskal-Wallis Test	,021	Reject the null hypothesis.
3	The distribution of School_distress is the same across categories of Participation roles.	Independent-Samples Kruskal-Wallis Test	,071	Retain the null hypothesis.
4	The distribution of Autoestima is the same across categories of Participation roles.	Independent-Samples Kruskal-Wallis Test	,028	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.



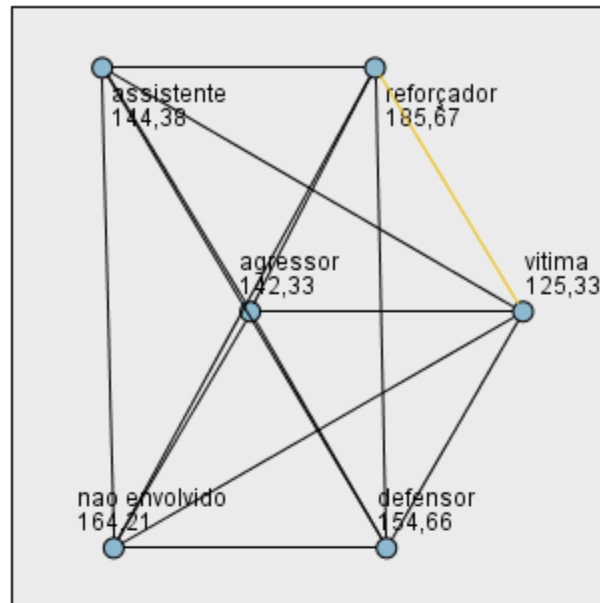
### Pairwise Comparisons of Participation roles



Each node shows the sample average rank of Participation roles.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
vitima-nao envolvido	-28,601	16,754	-1,707	,088	1,000
vitima-agressor	-32,615	20,257	-1,610	,107	1,000
vitima-assistente	-34,455	20,421	-1,687	,092	1,000
vitima-defensor	-39,793	17,438	-2,282	,022	,337
vitima-reforçador	-66,109	18,594	-3,555	,000	,006
nao envolvido-agressor	4,014	17,966	,223	,823	1,000
nao envolvido-assistente	5,854	18,150	,323	,747	1,000
nao envolvido-defensor	11,192	14,715	,761	,447	1,000
nao envolvido-reforçador	37,508	16,067	2,335	,020	,294
agressor-assistente	-1,840	21,427	-,086	,932	1,000
agressor-defensor	-7,178	18,606	-,386	,700	1,000
agressor-reforçador	-33,494	19,693	-1,701	,089	1,000
assistente-defensor	5,338	18,784	,284	,776	1,000

### Pairwise Comparisons of Participation roles



Each node shows the sample average rank of Participation roles.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
vitima-agressor	-17,003	20,383	-,834	,404	1,000
vitima-assistente	-19,057	20,547	-,927	,354	1,000
vitima-defensor	-29,339	17,495	-1,677	,094	1,000
vitima-nao envolvido	-38,882	16,858	-2,306	,021	,316
vitima-reforçador	-60,348	18,709	-3,226	,001	,019
agressor-assistente	-2,054	21,559	-,095	,924	1,000
agressor-defensor	-12,336	18,673	-,661	,509	1,000
agressor-nao envolvido	-21,879	18,077	-1,210	,226	1,000
agressor-reforçador	-43,345	19,815	-2,188	,029	,431
assistente-defensor	10,282	18,852	,545	,585	1,000
assistente-nao envolvido	-19,825	18,263	-1,086	,278	1,000
assistente-reforçador	41,291	19,984	2,066	,039	,582
defensor-nao envolvido	-9,543	14,744	-,647	,517	1,000

## APPENDIX D

Estamos a fazer um estudo com estudantes universitários e por isso pedimos a sua colaboração. Estamos a estudar algumas questões relacionadas com a vida escolar.

Por favor, responda a todas as questões cuidadosamente, mas não perca demasiado tempo com cada questão. Interessa-nos a sua resposta sincera e espontânea. Responda com a sua maneira de agir ou sentir e não de acordo com o que considera ideal. Interessa-nos estudar as pessoas tais como elas são. Não há respostas certas nem erradas.

Sempre que se enganar, risque a sua resposta e assinale a alternativa que considera aproximar-se mais da sua opinião.

Os inquéritos são anónimos, mas para efeitos de tratamento estatístico pedimos-lhe que indique:

Sexo: Masculino \_\_\_ Feminino \_\_\_ Idade: \_\_\_ anos

Curso: \_\_\_\_\_

Ano: \_\_\_\_\_

Desde já agradecemos a sua colaboração.

**Vai encontrar de seguida algumas afirmações. Provavelmente concordará completamente com algumas delas e discordará completamente de outras. Algumas vezes terá uma opinião mais neutra.**

**Por favor leia cada uma das frases cuidadosamente e decida em que medida concorda ou discorda com cada uma, colocando uma X sobre o número que corresponde à sua resposta. Por favor responda a todas as perguntas.**

		DISCORDO COMPLETAMENTE	DISCORDO	DISCORDO LIGEIRAMENTE	CONCORDO LIGEIRAMENTE	CONCORDO	CONCORDO COMPLETAMENTE
1	Os meus amigos são muitas vezes injustos comigo.	1	2	3	4	5	6

2	Na minha vida a injustiça é a exceção e não a regra.	1	2	3	4	5	6
3	Basicamente, o mundo em que vivemos é justo.	1	2	3	4	5	6
4	Sou muitas vezes tratado de forma injusta pelos meus amigos.	1	2	3	4	5	6
5	Acho que a maior parte do que me acontece é justo.	1	2	3	4	5	6
		<b>DISCORDO COMPLETAMENTE</b>	<b>DISCORDO</b>	<b>DISCORDO LIGEIRAMENTE</b>	<b>CONCORDO LIGEIRAMENTE</b>	<b>CONCORDO</b>	<b>CONCORDO COMPLETAMENTE</b>
6	De um modo geral os acontecimentos da minha vida são justos.	1	2	3	4	5	6
7	Para os meus amigos as injustiças são a exceção e não a regra.	1	2	3	4	5	6
8	As decisões que os outros tomam em relação a mim são justas.	1	2	3	4	5	6
9	Geralmente, os meus amigos tratam-me de uma forma justa.	1	2	3	4	5	6
10	Acho que geralmente obtenho o que mereço.	1	2	3	4	5	6
11	Geralmente os outros tratam-me de uma maneira justa.	1	2	3	4	5	6
12	Os meus amigos comportam-se frequentemente de forma injusta comigo.	1	2	3	4	5	6
13	As injustiças em todas as áreas da vida (por exemplo, profissão, família, política) constituem uma exceção à regra.	1	2	3	4	5	6
14	Ao longo da vida as pessoas acabam por ser compensadas pelas injustiças sofridas.	1	2	3	4	5	6
15	De uma maneira geral, as pessoas merecem aquilo que lhes acontece.	1	2	3	4	5	6
16	A justiça vence sempre a injustiça.	1	2	3	4	5	6

17	Em geral eu mereço o que me acontece.	1	2	3	4	5	6
18	Os meus amigos muitas vezes julgam-me de modo injusto.	1	2	3	4	5	6
19	As pessoas tentam ser justas quando tomam decisões importantes.	1	2	3	4	5	6
20	Os meus amigos tentam ser justos quando tomam decisões importantes em relação a mim.	1	2	3	4	5	6
21	Geralmente, os meus professores tratam-me de uma forma justa.	1	2	3	4	5	6
22	No ISCTE, existem apenas algumas coisas de que eu gosto.	1	2	3	4	5	6
23	As minhas notas finais são geralmente consequência do meu comportamento e não dos resultados dos testes.	1	2	3	4	5	6
24	Se eu tiver que resolver um exercício difícil no quadro, acredito que sou capaz de fazê-lo.	1	2	3	4	5	6
25	Tenho a certeza que consigo atingir os objectivos escolares pretendidos, mesmo que de vez em quando tenha uma nota baixa.	1	2	3	4	5	6
26	Seria bom se eu nunca mais fosse obrigado a ir à universidade.	1	2	3	4	5	6
		<b>DISCORDO COMPLETAMENTE</b>	<b>DISCORDO</b>	<b>DISCORDO LIGEIRAMENTE</b>	<b>CONCORDO LIGEIRAMENTE</b>	<b>CONCORDO</b>	<b>CONCORDO COMPLETAMENTE</b>
27	Para mim, é fácil perceber matérias novas durante as aulas.	1	2	3	4	5	6
28	É bom regressar à universidade, mesmo que as férias tenham sido agradáveis.	1	2	3	4	5	6
29	Os meus professores dão-me frequentemente notas injustas.	1	2	3	4	5	6
30	Eu gosto de ir à universidade.	1	2	3	4	5	6
31	Os meus professores são muitas vezes injustos comigo.	1	2	3	4	5	6
32	Se o professor der a matéria mais rápido, não vou ser capaz de atingir os resultados	1	2	3	4	5	6

33	Durante as aulas, se me esforçar sou capaz de resolver até as tarefas mais difíceis.	1	2	3	4	5	6
34	Geralmente, eu mereço as notas que recebo.	1	2	3	4	5	6
35	Mesmo que estivesse doente durante um longo período de tempo, seria capaz de alcançar bons resultados escolares.	1	2	3	4	5	6
36	As decisões que os professores tomam sobre mim são geralmente justas.	1	2	3	4	5	6
37	De manhã, basta pensar na universidade para ficar angustiado.	1	2	3	4	5	6
38	Mesmo que o professor duvide das minhas capacidades, tenho a certeza de que consigo obter bons resultados escolares.	1	2	3	4	5	6
39	Os meus professores comportam-se frequentemente de forma injusta comigo.	1	2	3	4	5	6
40	De um modo geral, sinto-me contente por ainda andar na universidade.	1	2	3	4	5	6
41	Muitas vezes, os professores tentam prejudicar-me nos testes.	1	2	3	4	5	6
42	Sou muitas vezes tratado de forma injusta pelos meus professores.	1	2	3	4	5	6
43	Quando penso na minha vida até agora, vejo que consegui alcançar grande parte dos meus objectivos.	1	2	3	4	5	6
44	Tenho uma atitude positiva em relação a mim próprio.	1	2	3	4	5	6
45	Eu estou satisfeito com a minha situação.	1	2	3	4	5	6
46	A minha vida dificilmente poderia ser mais feliz do que é.	1	2	3	4	5	6
47	Quando penso na minha vida até agora, sinto-me satisfeito.	1	2	3	4	5	6
		<b>DISCORDO COMPLETAMENTE</b>	<b>DISCORDO</b>	<b>DISCORDO LIGEIRAMENTE</b>	<b>CONCORDO LIGEIRAMENTE</b>	<b>CONCORDO</b>	<b>CONCORDO COMPLETAMENTE</b>

48	Eu acredito que a maioria dos meus desejos se irá concretizar	1	2	3	4	5	6
49	Eu estou satisfeito com a minha vida.	1	2	3	4	5	6
50	Penso que o tempo trará experiências mais interessantes e agradáveis.	1	2	3	4	5	6
51	Globalmente, acho que sou um falhado.	1	2	3	4	5	6
52	Em geral, estou satisfeito comigo mesmo.	1	2	3	4	5	6
53	Por vezes penso que não presto para nada.	1	2	3	4	5	6
54	Sou tão capaz de fazer coisas como a maior parte das outras pessoas.	1	2	3	4	5	6
55	Por vezes sinto-me inútil.	1	2	3	4	5	6
56	Gostava de ter mais respeito por mim próprio.	1	2	3	4	5	6
57	Em geral, estou satisfeito comigo mesmo.	1	2	3	4	5	6
58	Por vezes penso que não presto para nada.	1	2	3	4	5	6
59	Sou tão capaz de fazer coisas como a maior parte das outras pessoas.	1	2	3	4	5	6
60	Sinto que sou uma pessoa de valor, pelo menos ao mesmo nível que os outros.	1	2	3	4	5	6
61	Sinto que não tenho muito de que me orgulhar.	1	2	3	4	5	6
62	Acho que tenho algumas boas qualidades.	1	2	3	4	5	6
63	Geralmente os meus pais tratam-me justamente/com justiça.	1	2	3	4	5	6
64	Eu sou muitas vezes injustamente tratado pelos meus pais.	1	2	3	4	5	6
65	Geralmente as decisões importantes que os meus pais tomam sobre mim são justas.	1	2	3	4	5	6
66	Os meus pais julgam-me muitas vezes injustamente.	1	2	3	4	5	6
67	Os meus pais comportam-se muitas vezes injustamente para comigo.	1	2	3	4	5	6

68	Os meus pais são muitas vezes injustos para comigo.	1	2	3	4	5	6
69	As injustiças por parte dos meus pais são a excepção em vez da regra.	1	2	3	4	5	6
70	Com os meus pais, a justiça vence sempre a injustiça.	1	2	3	4	5	6
71	Geralmente eu sinto-me bastante feliz.	1	2	3	4	5	6
		<b>DISCORDO COMPLETAMENTE</b>	<b>DISCORDO</b>	<b>DISCORDO LIGEIRAMENTE</b>	<b>CONCORDO LIGEIRAMENTE</b>	<b>CONCORDO</b>	<b>CONCORDO COMPLETAMENTE</b>
72	Geralmente eu tendo a olhar para o lado bom da vida.	1	2	3	4	5	6
73	Raramente estou mesmo “na maior”.	1	2	3	4	5	6
74	Geralmente eu sinto-me como se fosse rebentar de alegria.	1	2	3	4	5	6
75	Eu considero-me uma pessoa feliz.	1	2	3	4	5	6
76	Eu não sou tão feliz como a maioria das pessoas.	1	2	3	4	5	6



Nesta parte do estudo, pedimos-lhe que recorde as suas experiências escolares passadas, nomeadamente situações relacionadas com o fenómeno de **BULLYING**. Os comportamentos de **Bullying** são praticados por uma pessoa ou por um grupo, e repetem-se durante algum tempo com a intenção de magoar, ameaçar ou meter medo a outra pessoa, fazendo-a sofrer. O **bullying** é diferente de outros comportamentos agressivos porque é praticado por alguém mais forte ou com mais poder que aproveita o desequilíbrio de poder para pôr a vítima indefesa. Existem várias formas de bullying: bater, empurrar, agarrar, perseguir, gozar, fazer piadas, chamar nomes, dizer mentiras acerca da pessoa, deixar de falar e ignorar, pôr de parte e excluir dos grupos e brincadeiras. Tendo em conta esta informação responda às seguintes questões.

**Por favor, diga-nos com que frequência cada uma das seguintes frases foi uma realidade para si, no passado?**

		NUNCA	RARAMENTE	POUCAS VEZES	ALGUMAS VEZES	MUITAS VEZES	MUITISSIMAS VEZES
1	Tentei resolver as diferenças através do diálogo.	1	2	3	4	5	6
2	Disse aos outros: “Ele/a é tão estúpido/a que é bem-feito ser agredido/a”	1	2	3	4	5	6
3	Os(As) outros rapazes/raparigas(as) implicaram comigo.	1	2	3	4	5	6
4	Eu fui empurrado e agredido por outros rapazes/raparigas.	1	2	3	4	5	6
5	Fui amigo da vítima durante o tempo de intervalo.	1	2	3	4	5	6
6	Juntei-me ao bullying quando os outros me disseram para o fazer.	1	2	3	4	5	6
7	Juntei-me ao bullying quando outra pessoa o começou.	1	2	3	4	5	6
8	Agarrei a vítima enquanto esta foi agredida.	1	2	3	4	5	6
9	Dei gargalhadas.	1	2	3	4	5	6
10	Vinguei-me do agressor pela vítima.	1	2	3	4	5	6

11	Fiquei fora da situação.	1	2	3	4	5	6
12	Nem sequer soube da existência do bullying.	1	2	3	4	5	6
13	Disse aos outros que o bullying era estúpido.	1	2	3	4	5	6
		<b>NUNCA</b>	<b>RARAMENTE</b>	<b>POUCAS VEZES</b>	<b>ALGUMAS VEZES</b>	<b>MUITAS VEZES</b>	<b>MUITÍSSIMAS VEZES</b>
14	Ataquei o agressor para defender a vítima.	1	2	3	4	5	6
15	Chamei nomes aos agressores para defender a vítima.	1	2	3	4	5	6
16	Trouxe mais pessoas para a situação de bullying.	1	2	3	4	5	6
17	Chamei “meninos da mamã” a quem não participava no bullying.	1	2	3	4	5	6
18	Confortei a vítima na situação de bullying.	1	2	3	4	5	6
19	Disse aos outros que o agressor era estúpido.	1	2	3	4	5	6
20	Os outros rapazes/raparigas chamaram-me nomes.	1	2	3	4	5	6
21	Fui para longe do local.	1	2	3	4	5	6
22	Incitei o agressor através de gritos.	1	2	3	4	5	6
23	Disse aos outros para pararem o bullying.	1	2	3	4	5	6
24	Fiz sugestões sobre como agredir alguém.	1	2	3	4	5	6
25	Disse à vítima: “Não te preocupes com eles”.	1	2	3	4	5	6
26	Disse aos outros para não serem amigos da vítima.	1	2	3	4	5	6
27	Fui ver a situação.	1	2	3	4	5	6
28	Fiquei com a vítima durante os intervalos.	1	2	3	4	5	6

29	Comecei o bullying.	1	2	3	4	5	6
30	Fiquei perto e observei.	1	2	3	4	5	6
31	Fui gozado por outros(as) rapazes/raparigas(as).	1	2	3	4	5	6
32	Fiz comentários irónicos sobre a vítima.	1	2	3	4	5	6
33	Disse aos outros que não compensava participar no bullying.	1	2	3	4	5	6
34	Disse aos outros: “Venham ver, alguém está a ser agredido ali”.	1	2	3	4	5	6
35	Não fiz nada.	1	2	3	4	5	6
36	Ajudei o agressor.	1	2	3	4	5	6
37	Ameacei que ia contar ao professor, se os outros não parassem com o bullying.	1	2	3	4	5	6
38	Confortei a vítima depois.	1	2	3	4	5	6
39	Encorajei a vítima a contar o bullying ao professor.	1	2	3	4	5	6
		<b>NUNCA</b>	<b>RARAMENTE</b>	<b>POUCAS VEZES</b>	<b>ALGUMAS VEZES</b>	<b>MUITAS VEZES</b>	<b>MUITISSIMAS VEZES</b>
40	Fui falar com o professor sobre o bullying.	1	2	3	4	5	6
41	Incentivei os outros a agredir a vítima.	1	2	3	4	5	6
42	Encontrei sempre novas formas de agredir a vítima.	1	2	3	4	5	6
43	Contei a um adulto o caso de bullying.	1	2	3	4	5	6
44	Tentei fazer com que os outros parem com o bullying.	1	2	3	4	5	6
45	Chamei pessoas para ajudarem a vítima.	1	2	3	4	5	6

46	Fui chamar o professor responsável.	1	2	3	4	5	6
47	Normalmente estive presente mesmo que não estivesse a fazer nada.	1	2	3	4	5	6
48	Finji que não me apercebi do que estava a acontecer.	1	2	3	4	5	6
49	Apanhei a vítima.	1	2	3	4	5	6
50	Fiz com que os outros se juntassem ao bullying.	1	2	3	4	5	6
51	Não fiquei do lado de ninguém.	1	2	3	4	5	6
52	Disse ao agressor: “Mostra-lhe”.	1	2	3	4	5	6
53	Ri-me.	1	2	3	4	5	6
54	Geralmente, não estive presente.	1	2	3	4	5	6

## APPENDIX E

### Levene's Test of Equality of Error Variances<sup>a</sup>

	F	df1	df2	Sig.
Satisfacao	1,186	11	143	,301
Mood_6	1,042	11	143	,413
School_distress	2,475	11	143	,007
Autoestima	1,182	11	143	,304

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Role\_f + sexo + Role\_f \* sexo

### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ZRE_1 Standardized Residual for Satisfacao	,051	155	,200*	,987	155	,171
ZRE_2 Standardized Residual for Mood_6	,080	155	,017	,985	155	,088
ZRE_3 Standardized Residual for School_distress	,084	155	,010	,958	155	,000
ZRE_4 Standardized Residual for Autoestima	,071	155	,057	,979	155	,020

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## APPENDIX F

### STUDY 2

#### Non-Parametric Tests

##### A. SEXO

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Satisfacao is the same across categories of sexo.	Independent-Samples Kruskal-Wallis Test	,230	Retain the null hypothesis.
2	The distribution of Mood_6 is the same across categories of sexo.	Independent-Samples Kruskal-Wallis Test	,192	Retain the null hypothesis.
3	The distribution of School_distress is the same across categories of sexo.	Independent-Samples Kruskal-Wallis Test	,537	Retain the null hypothesis.
4	The distribution of Autoestima is the same across categories of sexo.	Independent-Samples Kruskal-Wallis Test	,497	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

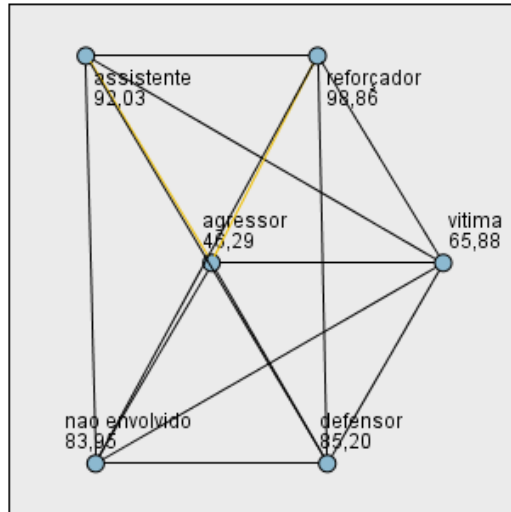
##### B. ROLE

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Satisfacao is the same across categories of Participation roles.	Independent-Samples Kruskal-Wallis Test	,003	Reject the null hypothesis.
2	The distribution of Mood_6 is the same across categories of Participation roles.	Independent-Samples Kruskal-Wallis Test	,000	Reject the null hypothesis.
3	The distribution of School_distress is the same across categories of Participation roles.	Independent-Samples Kruskal-Wallis Test	,017	Reject the null hypothesis.
4	The distribution of Autoestima is the same across categories of Participation roles.	Independent-Samples Kruskal-Wallis Test	,001	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is ,05.

### Pairwise Comparisons of Participation roles

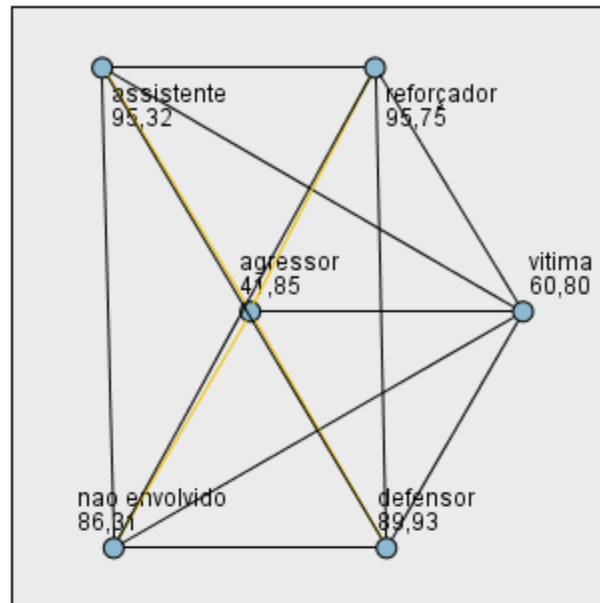


Each node shows the sample average rank of Participation roles.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
agressor-vitima	19,585	13,546	1,446	,148	1,000
agressor-nao envolvido	-37,656	13,137	-2,866	,004	,062
agressor-defensor	-38,906	13,774	-2,825	,005	,071
agressor-assistente	-45,732	15,148	-3,019	,003	,038
agressor-reforçador	-52,567	15,346	-3,426	,001	,009
vitima-nao envolvido	-18,071	10,670	-1,694	,090	1,000
vitima-defensor	-19,321	11,446	-1,688	,091	1,000
vitima-assistente	-26,148	13,067	-2,001	,045	,681
vitima-reforçador	-32,982	13,295	-2,481	,013	,197
nao envolvido-defensor	1,250	10,959	,114	,909	1,000
nao envolvido-assistente	8,076	12,642	,639	,523	1,000
nao envolvido-reforçador	14,911	12,878	1,158	,247	1,000
defensor-assistente	-6,826	13,304	-,513	,608	1,000
defensor-reforçador	13,661	13,528	1,010	,313	1,000
assistente-reforçador	6,835	14,924	,458	,647	1,000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same. Asymptotic significances (2-sided tests) are displayed. The significance level is ,05.

### Pairwise Comparisons of Participation roles

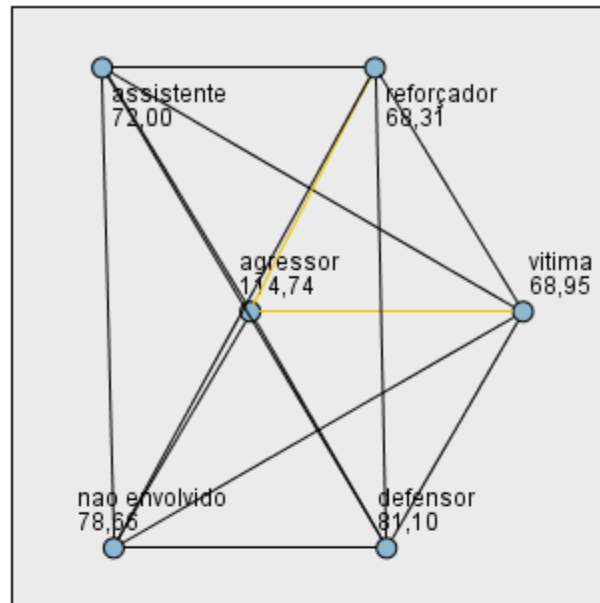


Each node shows the sample average rank of Participation roles.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
agressor-vitima	18,950	13,543	1,399	,162	1,000
agressor-nao envolvido	-44,460	13,134	-3,385	,001	,011
agressor-defensor	-48,080	13,772	-3,491	,000	,007
agressor-assistente	-53,463	15,145	-3,530	,000	,006
agressor-reforçador	-53,897	15,343	-3,513	,000	,007
vitima-nao envolvido	-25,509	10,668	-2,391	,017	,252
vitima-defensor	-29,130	11,444	-2,545	,011	,164
vitima-assistente	-34,513	13,065	-2,642	,008	,124
vitima-reforçador	-34,947	13,293	-2,629	,009	,128
nao envolvido-defensor	3,621	10,957	,330	,741	1,000
nao envolvido-assistente	9,003	12,640	,712	,476	1,000
nao envolvido-reforçador	9,438	12,876	,733	,464	1,000
defensor-assistente	-5,382	13,301	-,405	,686	1,000



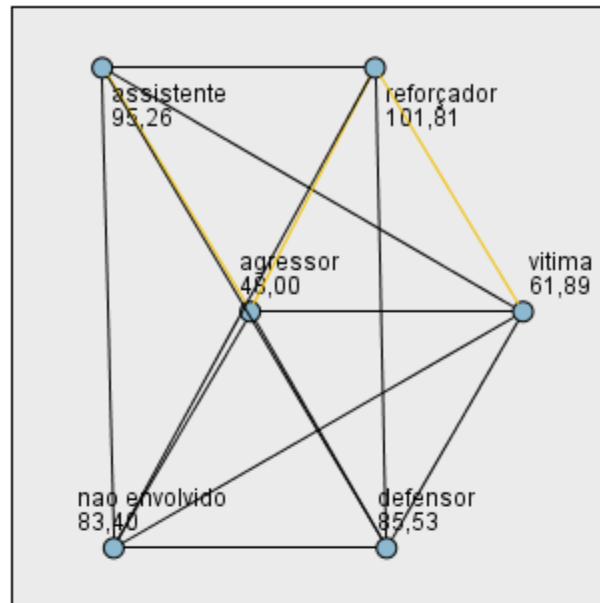
### Pairwise Comparisons of Participation roles



Each node shows the sample average rank of Participation roles.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
reforçador-vitima	,649	13,274	,049	,961	1,000
reforçador-assistente	-3,694	14,900	-,248	,804	1,000
reforçador-nao envolvido	-10,357	12,857	-,806	,421	1,000
reforçador-defensor	-12,794	13,506	-,947	,343	1,000
reforçador-agressor	46,430	15,320	3,031	,002	,037
vitima-assistente	-3,045	13,046	-,233	,815	1,000
vitima-nao envolvido	-9,708	10,653	-,911	,362	1,000
vitima-defensor	-12,145	11,427	-1,063	,288	1,000
vitima-agressor	-45,781	13,524	-3,385	,001	,011
assistente-nao envolvido	-6,662	12,622	-,528	,598	1,000
assistente-defensor	9,100	13,282	,685	,493	1,000
assistente-agressor	42,735	15,123	2,826	,005	,071
nao envolvido-defensor	2,438	10,941	,223	,824	1,000

### Pairwise Comparisons of Participation roles



Each node shows the sample average rank of Participation roles.

Sample1-Sample2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj.Sig.
agressor-vitima	13,894	13,561	1,025	,306	1,000
agressor-nao envolvido	-35,400	13,151	-2,692	,007	,107
agressor-defensor	-37,533	13,790	-2,722	,006	,097
agressor-assistente	-47,263	15,165	-3,117	,002	,027
agressor-reforçador	-53,806	15,363	-3,502	,000	,007
vitima-nao envolvido	-21,506	10,682	-2,013	,044	,661
vitima-defensor	-23,639	11,459	-2,063	,039	,587
vitima-assistente	-33,369	13,082	-2,551	,011	,161
vitima-reforçador	-39,912	13,310	-2,999	,003	,041
nao envolvido-defensor	2,133	10,971	,194	,846	1,000
nao envolvido-assistente	11,863	12,656	,937	,349	1,000
nao envolvido-reforçador	18,406	12,893	1,428	,153	1,000
defensor-assistente	-9,730	13,318	-,731	,465	1,000

## APPENDIX G

Estamos a fazer um estudo e precisamos de rapazes e raparigas da tua idade, por isso pedimos a tua colaboração. Estamos a estudar algumas questões relacionadas com a **vida escolar**.

Responde a todas as questões cuidadosamente, mas não percas demasiado tempo com cada questão. Interessa-nos a tua resposta sincera e espontânea. Responde de acordo com a tua maneira de agir ou sentir e não de acordo com o que consideras ideal. Interessa-nos estudar as pessoas tais como elas são. Não há respostas certas nem erradas.

Sempre que te enganares, risca a tua resposta e assinala a alternativa que consideras aproximar-se mais da tua opinião.

Os inquéritos são confidenciais e apenas para efeitos de tratamento estatístico pedimos-te que indiques:

Sexo: Masculino\_\_\_ Feminino\_\_\_

Idade: \_\_\_ anos

Ano de escolaridade: \_\_\_\_\_ Turma: \_\_\_\_\_ Escola: \_\_\_\_\_

Desde já agradecemos a tua colaboração.

Nas próximas páginas vais encontrar questões acerca do apoio ou da ajuda que podes receber dos teus pais, de um professor, de um colega de turma, do teu melhor amigo, ou de pessoas da tua escola. Lê cada frase com cuidado e responde honestamente. Para cada frase é-te pedido que respondas a duas questões. Primeiro, para que respondas com que frequência recibes o apoio descrito e depois para que respondas em que medida esse apoio é importante para ti.

	COM QUE FREQUÊNCIA?						IMPORTÂNCIA	
	NUNCA	QUASE NUNCA	ALGUMAS VEZES	MUITAS VEZES	QUASE SEMPRE	SEMPRE	NADA IMPORTANTE	IMPORTANTE
Os meus pais mostram que têm orgulho de mim.	1	2	3	4	5	6	1	2
Os meus pais compreendem-me.	1	2	3	4	5	6	1	2
Os meus pais escutam-me quando preciso de falar.	1	2	3	4	5	6	1	2
Os meus pais dão-me sugestões quando não sei o que fazer.	1	2	3	4	5	6	1	2
Os meus pais dão-me bons conselhos.	1	2	3	4	5	6	1	2
Os meus pais ajudam-me a resolver os meus problemas dando-me formação.	1	2	3	4	5	6	1	2
Os meus pais dizem-me que fiz um bom trabalho quando faço algo bem.	1	2	3	4	5	6	1	2
Quando me engano, os meus pais dizem-mo de uma forma agradável.	1	2	3	4	5	6	1	2
Os meus pais recompensam-me quando eu fiz algo bem.	1	2	3	4	5	6	1	2
Os meus pais ajudam-me nos exercícios.	1	2	3	4	5	6	1	2
Os meus pais demoram o tempo que for preciso para me ajudarem a tomar decisões.	1	2	3	4	5	6	1	2
Os meus pais dão-me muitas das coisas de que preciso.	1	2	3	4	5	6	1	2
Os meus professores preocupam-se comigo.	1	2	3	4	5	6	1	2

Os meus professores tratam-me de forma justa.	1	2	3	4	5	6
Os meus professores deixam que faça perguntas.	1	2	3	4	5	6
Os meus professores explicam as coisas que eu não percebo.	1	2	3	4	5	6
Os meus professores mostram-me como fazer as coisas.	1	2	3	4	5	6
Os meus professores ajudam-me a resolver os problemas dando-me informação.	1	2	3	4	5	6

1	2
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1	2
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1	2

	COM QUE FREQUÊNCIA?						IMPORTÂNCIA	
	NUNCA	QUASE NUNCA	ALGUMAS VEZES	MUITAS VEZES	QUASE SEMPRE	SEMPRE	NADA IMPORTANTE	IMPORTANTE
Os meus professores dizem-me que eu fiz um bom trabalho quando eu fiz algo bem.	1	2	3	4	5	6	1	2
Quando me engano, os meus professores dizem-mo de uma forma agradável.	1	2	3	4	5	6	1	2
Os meus professores dizem-me como estou a ir nos meus exercícios.	1	2	3	4	5	6	1	2
Os meus professores certificam-se de que tenho o que é necessário para a escola.	1	2	3	4	5	6	1	2
Os meus professores disponibilizam tempo para me ajudar a aprender algo bem.	1	2	3	4	5	6	1	2
Os meus professores passam tempo comigo quando preciso de ajuda.	1	2	3	4	5	6	1	2
Os meus colegas de turma tratam-me bem.	1	2	3	4	5	6	1	2
Os meus colegas de turma gostam da maior parte das minhas ideias e opiniões.	1	2	3	4	5	6	1	2
Os meus colegas de turma dão-me atenção.	1	2	3	4	5	6	1	2
Os meus colegas de turma dão-me ideias quando não sei o que fazer.	1	2	3	4	5	6	1	2
Os meus colegas de turma dão-me informação de modo a que possa aprender coisas novas.	1	2	3	4	5	6	1	2
Os meus colegas de turma dão-me bons conselhos.	1	2	3	4	5	6	1	2



meu melhor amigo(a) disponibiliza tempo para me ajudar a resolver os meus problemas.	1	2	3	4	5	6
as pessoas da minha escola preocupam-se comigo.	1	2	3	4	5	6
as pessoas da minha escola compreendem-me.	1	2	3	4	5	6
as pessoas da minha escola escutam-me quando preciso de falar.	1	2	3	4	5	6
as pessoas da minha escola dão-me bons conselhos.	1	2	3	4	5	6
as pessoas da minha escola ajudam-me a resolver os meus problemas dando-me informação.	1	2	3	4	5	6
as pessoas da minha escola explicam-me as coisas que não percebo.	1	2	3	4	5	6
as pessoas da minha escola dizem-me como me estou a sair nas tarefas/naquilo que tenho de fazer.	1	2	3	4	5	6
as pessoas da minha escola dizem-me que eu fiz um bom trabalho quando fiz algo bem.	1	2	3	4	5	6
quando me engano, as pessoas da minha escola dizem-me de uma forma agradável.	1	2	3	4	5	6
as pessoas da minha escola disponibilizam tempo para me ajudar a tomar decisões.	1	2	3	4	5	6
as pessoas da minha escola passam tempo comigo quando preciso de ajuda.	1	2	3	4	5	6
as pessoas da minha escola certificam-se que eu tenho as coisas de que preciso para a escola.	1	2	3	4	5	6

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Em baixo vais encontrar afirmações com as quais podes concordar ou discordar. Utilizando a escala abaixo indicada refere o teu grau de acordo com cada item.

		DISCORDO COMPLETAMENTE	DISCORDO	DISCORDO LIGEIRAMENTE	CONCORDO LIGEIRAMENTE	CONCORDO	CONCORDO COMPLETAMENTE
61	Em muitos aspectos, a minha vida aproxima-se dos meus ideais.	1	2	3	4	5	6
62	As minhas condições de vida são excelentes.	1	2	3	4	5	6
63	Estou satisfeito com a minha vida.	1	2	3	4	5	6
64	Até agora, consegui obter aquilo que era importante na vida.	1	2	3	4	5	6
65	Se pudesse viver a minha vida de novo, não alteraria praticamente nada.	1	2	3	4	5	6
66	Os meus colegas geralmente tratam-me de uma forma justa.	1	2	3	4	5	6
67	Sou frequentemente tratado(a) de forma injusta pelos meus colegas.	1	2	3	4	5	6
68	As decisões importantes que os meus colegas tomam em relação a mim costumam ser justas.	1	2	3	4	5	6
69	Os meus colegas julgam-me de forma injusta muitas vezes.	1	2	3	4	5	6
70	Os meus colegas comportam-se muitas vezes de forma injusta para comigo.	1	2	3	4	5	6
71	Os meus colegas são muitas vezes injustos comigo.	1	2	3	4	5	6
72	Os meus professores geralmente tratam-me de uma forma justa.	1	2	3	4	5	6
73	Sou frequentemente tratado(a) de forma injusta pelos meus professores.	1	2	3	4	5	6

74	As decisões importantes que os meus professores tomam em relação a mim costumam ser justas.	1	2	3	4	5	6
75	Os meus professores geralmente dão-me notas injustas.	1	2	3	4	5	6
76	Os meus professores comportam-se muitas vezes de forma injusta para comigo.	1	2	3	4	5	6
77	Os meus professores são muitas vezes injustos comigo.	1	2	3	4	5	6

**V.P.S.F. F.**

		DISCORDO COMPLETAMENTE	DISCORDO	DISCORDO LIGEIRAMENTE	CONCORDO LIGEIRAMENTE	CONCORDO	CONCORDO COMPLETAMENTE
78	Às vezes, os meus professores tentam prejudicar-me nos testes.	1	2	3	4	5	6
79	As minhas notas reflectem mais o meu comportamento do que aquilo que sei.	1	2	3	4	5	6
80	Em geral, eu mereço as notas que tenho.	1	2	3	4	5	6
81	As minhas notas dependem muitas vezes de quanto os professores gostam de mim.	1	2	3	4	5	6
82	Os meus pais geralmente tratam-me de uma forma justa.	1	2	3	4	5	6
83	Sou frequentemente tratado(a) de forma injusta pelos meus pais.	1	2	3	4	5	6
84	As decisões importantes que os meus pais tomam em relação a mim costumam ser justas.	1	2	3	4	5	6
85	Os meus pais julgam-me de forma injusta muitas vezes.	1	2	3	4	5	6
86	Os meus pais comportam-se muitas vezes de forma injusta para comigo.	1	2	3	4	5	6
87	Os meus pais são muitas vezes injustos comigo.	1	2	3	4	5	6
88	As injustiças da parte dos meus pais são a excepção e não a regra.	1	2	3	4	5	6
89	Com os meus pais a justiça prevalece sobre a injustiça.	1	2	3	4	5	6
90	Em geral, estou satisfeito comigo mesmo.	1	2	3	4	5	6
91	Por vezes, sinto-me inútil.	1	2	3	4	5	6
92	Acho que tenho algumas boas qualidades.	1	2	3	4	5	6
93	Sou tão capaz de fazer coisas como a maior parte das outras pessoas.	1	2	3	4	5	6
94	Sinto que não tenho muito de que me orgulhar.	1	2	3	4	5	6

95	Por vezes penso que não presto para nada.	1	2	3	4	5	6
96	Sinto que sou uma pessoa de valor, pelo menos ao mesmo nível que os outros.	1	2	3	4	5	6

		DISCORDO COMPLETAMENTE	DISCORDO	DISCORDO LIGEIRAMENTE	CONCORDO LIGEIRAMENTE	CONCORDO	CONCORDO COMPLETAMENTE
97	Gostava de ter mais respeito por mim próprio.	1	2	3	4	5	6
98	Globalmente, acho que sou um falhado.	1	2	3	4	5	6
99	Tenho uma atitude positiva em relação a mim próprio.	1	2	3	4	5	6
100	Se eu tiver que resolver um exercício difícil no quadro, acredito que sou capaz de fazê-lo.	1	2	3	4	5	6
101	Tenho a certeza que consigo atingir os objectivos escolares pretendidos, mesmo que de vez em quando tenha uma nota baixa.	1	2	3	4	5	6
102	Para mim, é fácil perceber matérias novas durante as aulas.	1	2	3	4	5	6
103	Se o professor der a matéria mais rápido, não vou ser capaz de atingir os resultados.	1	2	3	4	5	6
105	Durante as aulas, se me esforçar sou capaz de resolver até as tarefas mais difíceis.	1	2	3	4	5	6
106	Mesmo que o professor duvide das minhas capacidades, tenho a certeza de que consigo obter bons resultados escolares.	1	2	3	4	5	6
107	Mesmo que estivesse doente durante um longo período de tempo, seria capaz de alcançar bons resultados escolares.	1	2	3	4	5	6

V.P.S.F. F.

Pensa no que tens feito e experienciado durante os últimos dois meses. Diz-nos em que medida experienciaste cada um destes sentimentos, utilizando a escala em baixo.

		NUNCA	QUASE NUNCA	ALGUMAS VEZES	MUITAS VEZES	QUASE SEMPRE	SEMPRE
108	Positivo(a)	1	2	3	4	5	6
109	Negativo(a)	1	2	3	4	5	6
110	Bom/Boa	1	2	3	4	5	6
111	Mau/Má	1	2	3	4	5	6
112	Agradável	1	2	3	4	5	6
113	Desagradável	1	2	3	4	5	6
114	Feliz	1	2	3	4	5	6
115	Triste	1	2	3	4	5	6
116	Com Medo	1	2	3	4	5	6
117	Alegre	1	2	3	4	5	6
118	Zangado(a)	1	2	3	4	5	6
119	Satisfeito(a)	1	2	3	4	5	6
120	Sinto-me bem comigo mesmo(a).	1	2	3	4	5	6
121	Quero afundar-me no chão e desaparecer.	1	2	3	4	5	6
122	Sinto-me com remorsos, arrependido(a).	1	2	3	4	5	6
123	Sinto-me merecedor(a), valioso(a).	1	2	3	4	5	6
124	Sinto-me inferior.	1	2	3	4	5	6
125	Sinto-me ansioso(a) em relação a uma coisa que fiz.	1	2	3	4	5	6

126	Sinto-me capaz, útil.	1	2	3	4	5	6
127	Sinto-me uma má pessoa.	1	2	3	4	5	6
128	Não consigo deixar de pensar numa coisa má que fiz.	1	2	3	4	5	6
129	Sinto-me orgulhoso(a).	1	2	3	4	5	6

		NUNCA	QUASE NUNCA	ALGUMAS VEZES	MUITAS VEZES	QUASE SEMPRE	SEMPRE
130	Sinto-me humilhado(a), desgraçado(a).	1	2	3	4	5	6
131	Sinto vontade de pedir desculpa, de me confessar.	1	2	3	4	5	6
132	Sinto-me contente com uma coisa que fiz.	1	2	3	4	5	6
133	Sinto-me sem valor, impotente.	1	2	3	4	5	6
134	Sinto-me mal em relação a uma coisa que fiz.	1	2	3	4	5	6

V.P.S.F. F.



Por fim, seguem-se duas questões sobre a tua experiência de **BULLYING** sendo importante que compreendas o que este termo significa. Os comportamentos de **BULLYING** são praticados por uma pessoa ou por um grupo, e repetem-se durante algum tempo com a intenção de magoar, ameaçar ou meter medo a outra pessoa, fazendo-a sofrer. O **BULLYING** é diferente de outros comportamentos agressivos porque é praticado por alguém mais forte ou com mais poder que aproveita o desequilíbrio de poder para pôr a vítima indefesa. Existem várias formas de **BULLYING**: bater, empurrar, agarrar, perseguir, gozar, fazer piadas, chamar nomes, dizer mentiras acerca da pessoa, deixar de falar e ignorar, pôr de parte e excluir dos grupos e brincadeiras.

		NÃO PRATIQUEI BULLYING NOS ÚLTIMOS DOIS MESES	APENAS UMA OU DUAS VEZES	DUAS OU TRÊS VEZES POR MÊS	CERCA DE UMA VEZ POR SEMANA	MUITAS VEZES POR SEMANA
135	Quantas vezes praticaste <b>bullying</b> na escola nos últimos dois meses?	1	2	3	4	5

		NÃO FUI VÍTIMA BULLYING NOS ÚLTIMOS DOIS MESES	APENAS UMA OU DUAS VEZES	DUAS OU TRÊS VEZES POR MÊS	CERCA DE UMA VEZ POR SEMANA	MUITAS VEZES POR SEMANA
136	Quantas vezes foste vítima de <b>bullying</b> na escola nos últimos dois meses?	1	2	3	4	5

APPENDIX H

**Levene's Test of Equality of Error Variances<sup>a</sup>**

	F	df1	df2	Sig.
Jclassmates_z Zscore(Justice_classmates)	1,678	7	244	,115
Jteachers_z Zscore(Justice_teachers)	,662	7	244	,704
Jparents_z Zscore(Justice_parents)	,705	7	244	,668

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

**Levene's Test of Equality of Error Variances<sup>a</sup>**

	F	df1	df2	Sig.
SSParents_z Zscore(Parents_SS)	1,457	7	244	,183
SSTeachers_z Zscore(Teachers_SS)	,589	7	244	,764
SSClassmates_z Zscore(Classmates_SS)	,654	7	244	,711
SSCloseFriend_z Zscore(CloseFriend_SS)	3,346	7	244	,002
SSSchool_z Zscore(School_SS)	,754	7	244	,626

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + role + sexo + role \* sexo

### Levene's Test of Equality of Error Variances<sup>a</sup>

	F	df1	df2	Sig.
ZSWLS Zscore(SWLS)	,673	7	245	,695
Affectbalance_z Zscore(SPANE_affectbalance)	1,486	7	245	,173
SelfEsteem_z Zscore(SelfEsteemScale)	,769	7	245	,614

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

- a. Design: Intercept + role + sexo + role \* sexo

## APPENDIX I

### Non-Parametric Tests

#### SEX

<b>Hypothesis Test Summary</b>				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Zscore (Parents_SS) is the same across categories of sexo (1,2).	Independent-Samples Kruskal-Wallis Test	.285	Retain the null hypothesis.
2	The distribution of Zscore (Teachers_SS) is the same across categories of sexo (1,2).	Independent-Samples Kruskal-Wallis Test	.229	Retain the null hypothesis.
3	The distribution of Zscore (Classmates_SS) is the same across categories of sexo (1,2).	Independent-Samples Kruskal-Wallis Test	.821	Retain the null hypothesis.
4	The distribution of Zscore (CloseFriend_SS) is the same across categories of sexo (1,2).	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
5	The distribution of Zscore (School_SS) is the same across categories of sexo (1,2).	Independent-Samples Kruskal-Wallis Test	.759	Retain the null hypothesis.
6	The distribution of Zscore (Justice_classmates) is the same across categories of sexo (1,2).	Independent-Samples Kruskal-Wallis Test	.643	Retain the null hypothesis.
7	The distribution of Zscore (Justice_teachers) is the same across categories of sexo (1,2).	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
8	The distribution of Zscore (Justice_parents) is the same across categories of sexo (1,2).	Independent-Samples Kruskal-Wallis Test	.576	Retain the null hypothesis.
9	The distribution of Zscore(SWLS) is the same across categories of sexo (1,2).	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
10	The distribution of Zscore (SPANE_affectbalance) is the same across categories of sexo (1,2).	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
11	The distribution of Zscore (SelfEsteemScale) is the same across categories of sexo (1,2).	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

### Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Zscore (Parents_SS) is the same across categories of papel.	Independent-Samples Kruskal-Wallis Test	.152	Retain the null hypothesis.
2	The distribution of Zscore (Teachers_SS) is the same across categories of papel.	Independent-Samples Kruskal-Wallis Test	.003	Reject the null hypothesis.
3	The distribution of Zscore (Classmates_SS) is the same across categories of papel.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
4	The distribution of Zscore (CloseFriend_SS) is the same across categories of papel.	Independent-Samples Kruskal-Wallis Test	.853	Retain the null hypothesis.
5	The distribution of Zscore (School_SS) is the same across categories of papel.	Independent-Samples Kruskal-Wallis Test	.182	Retain the null hypothesis.
6	The distribution of Zscore (Justice_classmates) is the same across categories of papel.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
7	The distribution of Zscore (Justice_teachers) is the same across categories of papel.	Independent-Samples Kruskal-Wallis Test	.218	Retain the null hypothesis.
8	The distribution of Zscore (Justice_parents) is the same across categories of papel.	Independent-Samples Kruskal-Wallis Test	.198	Retain the null hypothesis.
9	The distribution of Zscore(SWLS) is the same across categories of papel.	Independent-Samples Kruskal-Wallis Test	.002	Reject the null hypothesis.
10	The distribution of Zscore (SPANE_affectbalance) is the same across categories of papel.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
11	The distribution of Zscore (SelfEsteemScale) is the same across categories of papel.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

## APPENDIX J

### Mediation effects between role and life satisfaction

We found that all roles were significantly and negatively related to life satisfaction (path c, see Table 1). We found that: being a victim was significantly and negatively related to classmates support ( $b = -.58, SE = 0.16, t = -3.55, p = .001$ ), school support ( $b = -.31, SE = 0.16, t = -1.92, p = .06, marginally significant$ ) and classmates justice ( $b = -.78, SE = 0.16, t = -4.75, p < .001$ ); being a bully-victim was significantly and negatively related to parents support ( $b = -.33, SE = 0.18, t = -1.82, p = .08, marginally significant$ ), classmates support ( $b = -.44, SE = 0.17, t = -2.61, p = .01$ ), classmates justice ( $b = -.37, SE = 0.17, t = -2.15, p = .03$ ) and parents justice ( $b = -.34, SE = 0.18, t = -1.86, p = .06, marginally significant$ ); and that being a bully was significantly and negatively related to parents support ( $b = -.34, SE = 0.19, t = -1.77, p = .08, marginally significant$ ) and teachers support ( $b = -.65, SE = 0.17, t = -3.79, p < .001$ ), and significantly and positively related to classmates justice ( $b = .32, SE = 0.18, t = 1.78, p = .08, marginally significant$ ) (paths a). We also found that two possible mediator variables, parents support ( $b = .41, SE = 0.07, t = 5.50, p < .001$ ) and teachers justice ( $b = -.18, SE = 0.08, t = -2.38, p = .02$ ), were significantly related to life satisfaction (paths b). No significant results were found for the other variables (see Table 8).

Table 1. Direct Relationships between Life Satisfaction and Predictors and Mediators

	$b(SE)$	$T$
Predictor variables		
Victims	-.63 (0.17)	-3.78**
Bullies	-.34 (0.18)	-1.85*
Bully-victims	-.48 (0.18)	-2.74**
Mediator variables		
Parents support	.40 (0.07)	5.50***
Teachers support	.05 (0.08)	0.64
Classmates support	.12 (0.08)	1.47
Close Friend support	-.03 (0.07)	-0.51
School support	.05 (0.07)	0.76

Classmates justice	.04 (0.07)	0.58
Teachers justice	-.18 (0.08)	-2.38**
Parents justice	.12 (0.07)	1.64

Notes: Direct relationship between life satisfaction and predictors and mediator variables. For predictor variables, this table represents the paths c. For mediator variables, this table represents the paths b. Significant paths a are reported in text and tests of mediation are reported in Table 8. \* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .001$ .

MEDIATE revealed only one significant mediation effect (see Table 2). We found that being a bully-victim is negatively related to life satisfaction ( $b = -.48, SE = 0.18, t = -2.74, p = .01$ ) and that this relationship is mediated by the perception of low parents support ( $b = -.13, SE = 0.08, 95\% CI: -0.31, -0.01$ ). Thus this result supports h4. Overall, the proposed model explained 31% ( $AdjR^2 = .31, p < .001$ ) of the variation of life satisfaction.

Table 2. Bootstrap Coefficients, Standard Errors, and Confidence Intervals for Mediation

		<i>b</i> ( <i>SE</i> )	95% CI for Bootstrap
Parents support	Victims	-.06 (0.07)	(-.021, 0.07)
	Bullies	-.14 (0.08)	(-.032, 0.01)
	Bully-Victims	-.13 (0.08)	(-.031, -0.01)
Teachers support	Victims	-.01 (0.02)	(-.008, 0.01)
	Bullies	-.03 (0.05)	(-.015, 0.06)
	Bully-Victims	-.01 (0.02)	(-.008, 0.01)
Classmates support	Victims	-.07 (0.05)	(-.019, 0.01)
	Bullies	.02 (0.03)	(-.001-0.11)
	Bully-Victims	-.05 (0.04)	(-.017, 0.01)
Close Friend support	Victims	.001 (0.01)	(-.002, 0.04)
	Bullies	-.001 (0.01)	(-.004, 0.02)
	Bully-Victims	.004 (0.02)	(-.001, 0.06)
School support	Victims	-.02 (0.03)	(-.011, 0.02)
	Bullies	.001 (0.02)	(-.002, 0.05)
	Bully-Victims	-.01 (0.03)	(-.010, 0.02)
Classmates justice	Victims	-.03 (0.07)	(-.018, 0.09)
	Bullies	.01 (0.03)	(-.003, 0.10)
	Bully-Victims	-.02 (0.04)	(-.011, 0.03)
Teachers justice	Victims	-.01 (0.03)	(-.010, 0.04)
	Bullies	.04 (0.04)	(-.001, 0.15)
	Bully-Victims	-.01 (0.04)	(-.011, 0.04)
Parents justice	Victims	-.03 (0.03)	(-.012, 0.005)
	Bullies	-.03 (0.03)	(-.014, 0.01)
	Bully-Victims	-.04 (0.03)	(-.015, 0.001)

Note: 1,000 bootstrap samples with 95% CI. Non-involved as the reference category.



### Mediation effects between role and affect balance

We found that all roles were significantly and negatively related to affect balance (path c, see Table 3). We found that: being a victim was significantly and negatively related to classmates support ( $b = -.59, SE = 0.16, t = -3.57, p < .001$ ), school support ( $b = -.31, SE = 0.16, t = -1.86, p = .06, marginally significant$ ) and classmates justice ( $b = -.78, SE = 0.16, t = -4.76, p < .001$ ). Being a bully-victim was significantly and negatively related to parents support ( $b = -.34, SE = 0.18, t = -1.90, p < .001$ ), classmates support ( $b = -.45, SE = 0.17, t = -2.64, p = .01$ ), classmates justice ( $b = -.37, SE = 0.18, t = -2.17, p = .03$ ) and parents justice ( $b = -.36, SE = 0.18, t = -1.96, p = .05$ ). Being a bully was significantly and negatively related to parents support ( $b = -.35, SE = 0.19, t = -1.85, p = .06, marginally significant$ ), teachers support ( $b = -.65, SE = 0.17, t = -3.75, p < .001$ ), and significantly and positively related to classmates justice ( $b = .31, SE = 0.18, t = 1.73, p = .08, marginally significant$ ) (paths a). We also found that five possible mediator variables, parents support ( $b = .28, SE = 0.07, t = 3.89, p < .001$ ), teachers support ( $b = .14, SE = 0.08, t = 1.85, p = .07, marginally significant$ ), classmates justice ( $b = .13, SE = 0.07, t = 1.74, p = .08, marginally significant$ ), teachers justice ( $b = -.19, SE = 0.08, t = -2.57, p = .01$ ) and parents justice ( $b = .19, SE = 0.07, t = 2.59, p = .01$ ), were significantly related to affect balance (paths b). No significant results were found for the other variables (see Table 10).

Table 3. Direct Relationships between Affect Balance and Predictors and Mediators

	$b(SE)$	$T$
Predictor variables		
Victims	-.80 (0.17)	-4.83***
Bullies	-.32 (0.18)	-1.77*
Bully-Victims	-.88 (0.17)	-5.05***
Mediator variables		
Parents support	.28 (0.07)	3.89***
Teachers support	.15 (0.08)	1.85*
Classmates support	.12 (0.08)	1.54
Close Friend support	-.05 (0.07)	-0.70
School support	.08 (0.07)	1.14

Classmates justice	.13 (0.07)	1.74**
Teachers justice	-.19 (0.08)	-2.57**
Parents justice	.19 (0.07)	2.59**

Notes: Direct relationship between affect balance and predictors and mediator variables. For predictor variables, this table represents the paths c. For mediator variables, this table represents the paths b. Significant paths a are reported in text and tests of mediation are reported in Table 10. \* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .001$ .

MEDIATE revealed five significant mediation effects (see Table 4). We found that being a victim is negatively related to affect balance ( $b = -.80$ ,  $SE = 0.17$ ,  $t = -4.82$ ,  $p < .001$ ) and that this relationship is mediated by the perception that classmates are less just. ( $b = -.10$ ,  $SE = 0.06$ , 95% CI: -0.25,-0.01). We found that being a bully-victim is negatively related to affect balance ( $b = -.88$ ,  $SE = 0.17$ ,  $t = -5.05$ ,  $p < .001$ ) and that relationship is mediated by the perception of low parents support ( $b = -.10$ ,  $SE = 0.06$ , 95% CI: -0.25,-0.01) and that classmates ( $b = -.05$ ,  $SE = 0.04$ , 95% CI: -0.16,-0.00) and parents ( $b = -.07$ ,  $SE = 0.05$ , 95% CI: -0.21,-0.00) are less just. We also found that being a bully is negatively related to affect balance ( $b = -.32$ ,  $SE = 0.18$ ,  $t = -1.77$ ,  $p = .08$ , *marginally significant*) and that relationship is mediated by the perception of low teachers support ( $b = -.10$ ,  $SE = 0.05$ , 95% CI: -0.24,-0.01). In this sense these results support h4. Overall, the proposed model explained 35% ( $AdjR^2 = .35$ ,  $p < .001$ ) of the variation of affect balance.

Table 4. Bootstrap Coefficients, Standard Errors, and Confidence Intervals for Mediation Tests - Affect Balance

		$b(SE)$	95% CI for Bootstrap
Parents support	Victims	-.05 (0.05)	(-0.17, 0.04)
	Bullies	-.10 (0.06)	(-0.25, 0.001)
	Bully-Victims	-.10 (0.06)	(-0.25, -.01)
Teachers support	Victims	-.03 (0.03)	(-0.12, 0.01)
	Bullies	-.10 (0.05)	(-0.24, -0.01)
	Bully-Victims	-.03 (0.03)	(-0.12, 0.01)
Classmates support	Victims	-.07 (0.05)	(-0.19, 0.0003)

	Bullies	-.02 (0.03)	(-0.01, 0.11)
	Bully-Victims	-.06 (0.04)	(-0.17, 0.0003)
Close Friend support	Victims	-.003 (0.01)	(-0.01, 0.05)
	Bullies	.0000 (0.01)	(-0.03, 0.03)
	Bully-Victims	.007 (0.02)	(-0.01, 0.07)
School support	Victims	-0.02 (0.03)	(-0.10, 0.01)
	Bullies	.003 (0.02)	(-0.03, 0.06)
	Bully-Victims	-.02 (0.03)	(-0.10, 0.01)
Classmates justice	Victims	-.10 (0.06)	(-0.25, -0.005)
	Bullies	.04 (0.03)	(-0.0003, 0.13)
	Bully-Victims	-.05 (0.04)	(-0.16, -0.0004)
Teachers justice	Victims	-.01 (0.04)	(-0.11, 0.05)
	Bullies	.04 (0.04)	(-0.02, 0.16)
	Bully-Victims	-.01 (0.04)	(-0.12, 0.05)
Parents justice	Victims	-.05 (0.04)	(-0.17, 0.003)
	Bullies	-.05 (0.05)	(-0.19, 0.01)
	Bully-Victims	-.07 (0.05)	(-0.21, -0.003)

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Note: 1,000 bootstrap samples with 95% CI. Non-involved as the reference category.

### Mediation effects between role and self-esteem

We found that being a victim and a bully-victim was significantly and negatively related to self-esteem (path c, see Table 5). Being a bully was not significantly related to self-esteem, however; we proceeded with the analysis since, according to Hayes (2209), a “failure to test for indirect effects in the absence of a total effect can lead you to miss some potentially interesting, important, or useful mechanisms by which  $X$  exerts some kind of effect on  $Y$ .” We found that: being a victim was significantly and negatively related to classmates support ( $b = -.58, SE = 0.16, t = -3.55, p = .001$ ), school support ( $b = -.31, SE = 0.16, t = -1.92, p = .06, marginally significant$ ) and classmates justice ( $b = -.78, SE = 0.16, t = -4.75, p < .001$ ). Being a bully-victim was significantly and negatively related to parents support ( $b = -.33, SE = 0.18, t = -1.82, p = .07, marginally significant$ ), classmates support ( $b = -.44, SE = 0.17, t = -2.61, p = .01$ ), classmates justice ( $b = -.37, SE = 0.17, t = -2.15, p = .03$ ) and parents justice ( $b = -.34,$

$SE = 0.18, t = -1.86, p = .06$ , marginally significant). Being a bully was significantly and negatively related to parents support ( $b = -.34, SE = 0.19, t = -1.77, p = .08$ , marginally significant), teachers support ( $b = -.65, SE = 0.17, t = -3.79, p < .001$ ), and significantly and positively related to classmates justice ( $b = .32, SE = 0.18, t = 1.78, p = .08$ , marginally significant) (paths a). We also found that five possible mediator variables, parents support ( $b = .20, SE = 0.07, t = 2.88, p = .004$ ), teachers support ( $b = .19, SE = 0.08, t = 2.58, p = .01$ ), classmates justice ( $b = .24, SE = 0.07, t = 3.46, p = .001$ ), teachers justice ( $b = -.21, SE = 0.07, t = -2.89, p = .004$ ) and parents justice ( $b = .22, SE = 0.07, t = 3.17, p = .002$ ), were significantly related to self-esteem (paths b). No significant results were found for the other variables (see Table 6).

Table 5. Direct Relationships between Self-Esteem and Predictors and Mediators

	$b(SE)$	$t$
Predictor variables		
Victims	-.94 (0.16)	-5.95***
Bullies	-.06 (0.17)	-0.37
Bully-Victims	-.59 (0.17)	-3.58***
Mediator variables		
Parents support	.20 (0.07)	2.88**
Teachers support	.19 (0.08)	2.58**
Classmates support	.12 (0.08)	1.54
Close Friend support	-.03 (0.06)	-0.47
School support	.02 (0.06)	0.31
Classmates justice	.24 (0.07)	3.46***
Teachers justice	-.21 (0.07)	-2.89**
Parents justice	.22 (0.07)	3.17**

Notes: Direct relationship between self-esteem and predictors and mediator variables. For predictor variables, this table represents the paths c. For mediator variables, this table represents the paths b. Significant paths a are reported in text and tests of mediation are reported in Table 12. \* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .001$ .

MEDIATE revealed five significant mediation effects (see Table 6). We found that being a victim is negatively related to self-esteem ( $b = -.94, SE = 0.16, t = -5.95, p < .001$ ) and that this relationship is mediated by the perception that classmates are less

just ( $b = -.19, SE = 0.07, 95\% CI: -0.35,-0.08$ ). We found that being a bully-victim is negatively related to self-esteem ( $b = -.59, SE = 0.17, t = -3.58, p < .001$ ) and that relationship is mediated by the perception of low parents support ( $b = -.07, SE = 0.05, 95\% CI: -0.20,-0.00$ ) and that classmates ( $b = -.09, SE = 0.05, 95\% CI: -0.22,-0.01$ ) and parents ( $b = -.08, SE = 0.04, 95\% CI: -0.20,-0.01$ ) are less just. We also found that although being a bully is not significantly related to self-esteem ( $b = -.06, SE = 0.17, t = -0.37, p = n.s.$ ) however, there is an indirect effect of the perception of low teachers support ( $b = -.13, SE = 0.06, 95\% CI: -0.28,-0.03$ ). In this sense these results support h4. Overall, the proposed model explained 38% ( $AdjR^2=.38, p < .001$ ) of the variation of self-esteem.

Table 6. Bootstrap Coefficients, Standard Errors, and Confidence Intervals for Mediation Tests - Self-Esteem

		<i>b</i> ( <i>SE</i> )	95% CI for Bootstrap
Parents support	Victims	-.03 (0.04)	(-0.13, 0.03)
	Bullies	-.07 (0.05)	(-0.20, 0.001)
	Bully-Victims	-.07 (0.05)	(-0.20, -0.003)
Teachers support	Victims	-.04 (0.04)	(-0.15, 0.01)
	Bullies	-.13 (0.06)	(-0.28, -0.03)
	Bully-Victims	-.04 (0.04)	(-0.15, 0.01)
Classmates support	Victims	-.07 (0.05)	(-0.18, 0.003)
	Bullies	.02 (0.03)	(-0.01, 0.10)
	Bully-Victims	-.05 (0.04)	(-0.16, 0.002)
Close Friend support	Victims	.001 (0.01)	(-0.02, 0.04)
	Bullies	-.001 (0.01)	(-0.04, 0.02)
	Bully-Victims	.003 (0.02)	(-0.01, 0.06)
School support	Victims	-.01 (0.02)	(-0.07, 0.03)
	Bullies	.001 (0.01)	(-0.02, 0.04)
	Bully-Victims	-.01 (0.02)	(-0.07, 0.02)
Classmates justice	Victims	-.19 (0.07)	(-0.35, -0.08)
	Bullies	.08 (0.05)	(0.01, 0.20)

	Bully-Victims	-.09 (0.05)	(-0.22, -0.01)
Teachers justice	Victims	-.02 (0.04)	(-0.11, 0.05)
	Bullies	.05 (0.05)	(-0.02, 0.17)
	Bully-Victims	-.02 (0.04)	(-0.11, 0.05)
Parents justice	Victims	-.05 (0.04)	(-0.17, 0.01)
	Bullies	-.06 (0.05)	(-0.18, 0.01)
	Bully-Victims	-.08 (0.05)	(-0.20, -0.01)

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Note: 1,000 bootstrap samples with 95% CI. Non-involved as the reference category.