Positive youth development and being bullied in early adolescence: a sociocultural analysis of national cohort data

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Abstract

In the current study we investigated the developmental dynamics between positive youth development, being bullied in adolescence, gender, and sociocultural risk factors. Participants were 3,509 males (49%) and 3,656 females (51%) studied longitudinally across ages nine, thirteen, and seventeen in the Growing Up in Ireland study. Using structural equation modelling we discovered that being bullied in early adolescence was most strongly predicted by having fewer close friends, higher family poverty, and living in neighborhoods with higher levels of disorder. However, the social disadvantage of a young person's school did not impact being bullied. More positive reports of connection and caring in early adolescence were negatively predicted by neighborhood disorder and family poverty, and being female had positive association with relationships with teachers. Developing confidence, competence and character in late adolescence was notably related to having fewer experiences of family trauma and transitions in childhood and to having higher levels of rapport with parents in early adolescence. The results highlight the importance of studying relationships and psychological development in sociocultural context.

Keywords

Positive Youth Development, Bullying, Sociocultural Psychology, Growing up in Ireland.

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Bullying is pervasive across nations and genders in early adolescence (Smith, López-Castro, Robinson & Görzig, 2019). Adolescents who are bullied are typically less positive about themselves (D'Urso & Pace, 2019), and report higher levels of anxiety, depression and suicidal ideation (Moore, Norman, Suetani, Thomas, Sly & Scott, 2017; Pellegrini & Bartini, 2000; Craig, 1998). They have also reported lower levels of social support, which creates the conditions for a lack of self-competence, self-esteem and self-efficacy (Sterzing et al., 2018; Lin et al., 2018). Bullying can occur in many different forms, including offensive epithets (Swearer et al., 2008), physical aggression (Bontempo & D'Augelli, 2002) and social isolation and exclusion (Fineran, 2002; Zych et al., 2017). Bullying can also occur at different levels of severity and at different frequencies, depending on the bully-victim relationship and context. More prolonged, intensive verbal and physical victimization can impact adolescents' mental health in terms of psychosomatic problems and anxiety problems (Pace, D'Urso, & Fontanesi, 2020). This variety of correlates of being bullied indicates that being bullied is part of a broader, complex system of adolescent psychological and social development. However, studies of bullying do not typically consider such a broad range of correlates nor set them in sociocultural context, to provide a holistic picture of how being bullied impacts adolescent development.

To address this gap, the present longitudinal study takes a positive youth development (PYD) perspective (Lerner, 2017) that focuses on how caring, connection, competence, confidence and character – the five tenets of PYD, feature in adolescent development. Within the positive youth developmental system, being bullied represents a rupture or irregularity that might impact the system in unpredictable ways. The first aim of the current study is therefore to model how being bullied interacts developmentally with the PYD system (i.e., across late childhood, early and late adolescence). A further consideration is that sociocultural context might impact the PYD system

and adolescents' chances of being bullied, for example when adolescents grow up in poorer neighborhoods, or attend low-income schools that have an increased risk of poorer school relational climate (McCoy, Roy, & Sirkman, 2013). Accordingly, the second study aim is to examine the relationships between PYD and being bullied in sociocultural context, to create a realistic, grounded model of antecedents and outcomes. To achieve these aims, we modeled the longitudinal and concurrent associations between sociocultural risk factors in childhood (family poverty, family trauma and transitions, and neighborhood disorder) and early adolescence (school social disadvantage), being bullied in early adolescence, early adolescent connection and caring (relatedness with parents, peers and teachers), and late adolescent confidence, competence and character (evaluations of being confident, a well balanced person, prepared for adult life, and an independent thinker).

Positive Youth Development

The Positive Youth Development perspective (e.g., Lerner, 2017) suggests that five psychological and social factors are central to healthy development in adolescence: individual competence, confidence, character, connection and caring. Competence is the state of being capable of managing challenges in life and essential social and personal tasks, such as working well with others; confidence is understood as a person's positive belief in their own abilities, which can include having self-respect, self-esteem, and self-efficacy; character is a person's internalization and replication of widely held social and moral norms that promote positive social functioning in societies, for example being compassionate; connection is seen as a person's experience of positive social exchanges between themselves and others; and caring relates to feeling empathy and closeness in one's social networks.

Lerner (2015) proposes that these five factors influence each other in mutual exchanges within a relational-developmental-system. The system consists of mutually affecting relationships between aspects of a person's psychology and the social world, which can be made up of many different people including school peers, family members and teachers whom the adolescent

interacts with in different contexts, creating a broad ecological system. Because all people and their interactions are consistently changing, the relational-developmental-system perspective emphasizes that human development is intrinsically plastic. The positive nature of the PYD factors encourages a strengths-based approach to research, rather than a deficit-based approach where researchers focus on creating more positive conditions for development by ameliorating or removing risk factors (Lerner, 2017). However, negative experiences still occur in adolescents' lives, making it relevant to explore how the PYD factors relate to risk factors within a developmental system. In the current study, we blend a strengths-based approach with the study of risk and protective factors, to better understand how the factors in PYD can support victims of bullying in their development throughout adolescence.

Being Bullied

An adolescent is bullied when he is repeatedly exposed to verbal or physical attack from one or more peers (Olweus, 1978, 1993). Often victims are chosen by the bully or a group of bullies because, in their opinion, the victims do not adhere perfectly to the canons of normality imposed by the dominant culture. Adolescents belonging to minority groups or those with physical disabilities are more often attacked (D'Urso & Pace, 2019; D'Urso, Symonds, & Pace, 2020). Regardless of their individual characteristics, victim of bullying have reported greater anxiety and depressive symptoms, and also can experience difficulties adapting to school, lower levels of self-esteem and self-competence (Boulton, Smith, & Cowie, 2010; Smith et al., 2004; Wolke, Woods, Bloomfield, & Karstadt, 2001). These associations are part of a developmental system, as longitudinal research has found that adolescent victims report loneliness, problems related to positive self-development, new victimization problems and poor coping strategies in late adolescence (Juvonen, Nishina & Graham, 2000). In Ireland, the setting of the current study, studies have underlined how bullying has a significant impact in school contexts and how it is a heterogeneous phenomenon (Collins, McAleavy & Adamson, 2004; Q'Moore, Kirkham, & Smith, 1997). Prevalence of being bullied is

high, with 40% of pupils and 30% of post-primary pupils reporting being bullied at school (Collins et al., 2004).

Dynamics between PYD and Being Bullied

Following Van der Kolk, McFarlane and Weisaeth (1996)'s perspective, being bullied may be considered as a trauma that can have significant consequences on adolescents' psychological and social development. Stressful experiences created by being bullied, according to this model, can produce alterations in emotional regulation and impulses (for example, emotional regulation, suicidal thoughts, difficulty in modulating one's internal responses, etc.), creating difficulties in adjusting emotional responses and behaviors, which has a further negative toll on effective management of personal and social problems. Through its form as a trauma, being bullied can have long term negative consequences that spillover into many aspects of adolescent development (Vidourek, King, & Merianos, 2016; Mishna et al., 2016).

In the current study we are interested in how being bullied might interact with the PYD factors of competence, confidence, and character. In related research, being bullied in adolescence has associated with later risk of anxiety, depression and suicidal ideation, as well as negatively impacting self-esteem (e.g., Malecki et al., 2016; Stapinski et al., 2015; Seals & Young, 2003). Several studies have also documented how being bullied negatively impacts adolescents' ability to problem solve and make adaptive choices about their lives (e.g., Boulton et al., 2010; Juvonen, Nishina & Graham, 2000).

The current study also examines how the PYD factors of connection and caring interact with being bullied (Mayes et al., 2017; Egon et al., 2018; Yang et al., 2019). Parental support has been found to help adolescents come to terms with the trauma of being bullied and has buffered the negative impact of being bullied on adolescent self-perception and onset of psychopathologies (Claes et al., 2015). On the contrary, inadequate or poor parental care has increased the risk of developing poorer social skills following episodes of being bullied (Huang, Hong, & Espelage, 2013; Xu et al., 2009; Nelson et al., 2006). Peer and teacher support can also play an important role

in the psychological adaptation of victims of bullying (D'Urso, Petruccelli, & Pace, 2018; Chong et al., 2010; Baker et al., 2008). For example, adolescents who perceive their teachers as supportive and involved are less likely to exhibit atypical behaviors at school and thus become easy targets for bullies (Berzonsky, 2004; Kordi & Baharudin, 2010; Brausch & Decker, 2014; Marshall, Parker, Ciarrochi, & Heaven, 2014; Pace, D'Urso, & Zappulla, 2018; Gini, Marino, Pozzoli, & Holt, 2018). Furthermore, support from teachers for adolescents to learn and feel good about themselves in classrooms, positively impacts adolescent psychosocial development and functioning (Siyahhan, Aricak, & Cayirdag-Acar, 2012; Kelly & Antonio, 2016; Muijs & Reynolds, 2017; Oldenburg et al., 2018; Muscarà et al., 2018; Bonaiuto et al., 2019) and this can ameliorate the negative impact of being bullied (Murray-Harvey & Slee, 2010; Orpinas & Horne, 2006). To summarize, high quality relationships appear to have a positive impact on the longer-term development of adolescents who are bullied (Turner, Shattuck, Finkelhor, & Hamby, 2017).

The Role of Sociocultural Risk Factors and Gender

Being bullied and the development of positive psychological and social competencies do not occur in isolation from social context. Indeed, research indicates the importance of investigating sociocultural risk factors for being bullied in adolescence (Rutter, 1987; Olweus, 1993). In line with Di Blasio (2005), both distal risk factors (e.g., the socio-cultural context of origin), and proximal risk factors (e.g., traumatic experiences or exposure to traumatic events) can contribute to being bullied. Risk factors also act concurrently and are reinforced with cumulative effects. In this sense, the external world with its adaptive tasks constantly comes into play with the internal world (intra-psychic systems of the adolescent, and relational systems).

There is a small, developing literature on the relationship between specific sociocultural context risk factors and being bullied. Studies have also identified that family poverty and socioeconomic status are risk factors for being bullied (Jansen et al., 2012; Lo, Howell & Cheng, 2013) because growing up with social disadvantage increases the chances that other children in the same sociocultural context are stressed by poverty and turn to bullying as a means to achieve

psychological equilibrium and contentment. Risk factors associated with social disadvantage can create situations in which children try to oppress others, since these risks create emotional and psychosocial gaps that inhibit adaptive coping of bullies and victims (Salmivalli & Nieminen, 2002; D'Urso & Pace, 2019).

The Di Blasio model (2005) suggests how sociocultural risk factors can also encourage bullying, when victims are visibly more psychologically, physically or socially vulnerable, and therefore better targets for bullies to overpower. Traumatic events (e.g., the death of a parent) in childhood can also be considered risk factors for being bullied in adolescence, because they can weaken a person's social and psychological resources (Cook et al., 2017). Also, cultural differences (between social norms in the country of settlement and country of origin) can be a risk factor for being bullied, because having some visible ethnic or racial difference can mark children as socially vulnerable within a majority group (Natarjan, 1998).

Gender is also commonly studied in relation to being bullied. Across countries, males are more often victims and perpetrators of bullying in adolescence (Smith, López-Castro, Robinson & Görzig, 2019). This has been found for both verbal and physical forms of bullying (Stubbs-Richardson, Sinclair, Goldberg, Ellithorpe & Amadi, 2018). However, there is some evidence that this gender difference declines throughout adolescence (Smith et al., 2019).

By including sociocultural risk factors and gender in the current study, we were able to create a more holistic and detailed model of PYD and bullying operating as a developmental system in sociocultural context. This emphasizes how adolescent development emerges from a complex set of interactions between risk and protective factors arising within the individual and society.

The Current Study

Research demonstrates that being bullied in adolescence interconnects with a broad range of psychological and social factors including mental health, self-perceptions, friendships, and relationships with parents and teachers. The positive youth development (PYD) perspective (Lerner, 2017) provides a useful framework for modelling these associations developmentally.

Sociocultural risk factors and gender might also interact with the PYD factors and being bullied, creating a holistic system of adolescent development in context. The aims of the current study are therefore firstly to model the developmental dynamics between being bullied and PYD, and secondly to embed this model in sociocultural and personal context by including adolescents' background factors and gender. The research questions are:

(1) how does young people's experience of connection and caring predict being bullied in early adolescence? Here we expected that better quality relationships with parents, teachers and peers would protect young people against being bullied (e.g., Lo, Howell & Cheng, 2013; Jansen et al., 2012).

(2) how do young people's experiences of being bullied and connection and caring in early adolescence, predict their personal competence, confidence and character in late adolescence? We anticipated that being bullied would have a negative impact on late adolescent outcomes, and that better quality relationships in early adolescence would have a positive impact on late adolescent outcomes (e.g., Boulton et al., 2010; Malecki et al., 2016); and

(3) how do sociocultural factors in childhood and gender impact young people's experiences of being bullied and connection and caring in early adolescence, and personal competence, confidence and character in late adolescence? We expected that higher levels of family poverty, neighborhood disorder, and family trauma and transitions would negatively impact the PYD dimensions, and positively impact being bullied, and that being male would be a risk factor for being bullied (e.g., Jansen et al., 2012; Lo, Howell & Cheng, 2013).

We (the researchers) used a longitudinal structural equation model computed with data from the Growing up in Ireland child cohort to examine these connections across the ages of 9 (childhood), 13 (early adolescence) and 17 years (late adolescence).

Method

Participants

The GUI is a multi-informant, longitudinal nationally representative cohort study that surveyed children, their parents, school principals and teachers to investigate children's lives and development in Ireland. The GUI child cohort were identified using schools as the primary sampling unit. A total of 910 primary schools were randomly selected and recruited from the population of over 3000 primary schools, then individual children were randomly sampled within those schools to represent the broader population of same aged children in Ireland. School principals acted as gatekeepers for the consent process. Consent to participate was collected from all participants in the study (children, parents, school principals and teachers). This resulted in an initial sample of 8,568 9-year olds, with around 9 children on average in each primary school, minimizing the chances of school effects to bias the outcomes.

The recruited sample were representative of the broader Irish population of 9-year olds at the time. Below we report on the sample characteristics at age 9-years (Williams et al., 2009). In the sample, 82% of children lived in two parent families (with around half having three or more children, and around half having 1-2 children) and 12% lived in single parent families. Of the primary caregivers, 98% were female and 98% were the child's biological parent. The children's mothers' highest educational qualifications were, in each of around one third of mothers, lower secondary schooling, upper secondary schooling, and post-school education (e.g., third level education). Around half of the child's families were classed in occupation as professional/managerial, 40% were classed as non-manual/skilled manual, and 13% were classed as semi-skilled/unskilled manual. In keeping with the Irish population, 87% of the children were reported by their parents as being Roman Catholic, with the next most frequently reported religions being none (7%), Church of Ireland (2%) and non-denominational Christian (2%). Of the children's mothers and fathers, 93% were Irish citizens and 85% were born in Ireland.

Three waves of data collection are archived and are publicly available for analysis. We included all three waves in this study: Wave 1 (9-years old in 2007/2008), Wave 2 (13-years old in 2011/2012) and Wave 3 (17-years old in 2015/2016). At the time of writing, a fourth wave of data has been collected at age 20 and is still being processed for archiving.

At age 9-years, the sample were in primary schools. At age 13-years they were either in their first or second year of post-primary / secondary schooling depending on the year they began primary schooling. Typically, children in Ireland transfer from primary school to their local secondary school at age 12/13-years. They typically remain at secondary school to complete their schooling at age 15/16-years (junior certificate) or age 18/19-years (school leaving certificate). Ireland has a two-tier education system, meaning that children only have one age-graded school transition that occurs in early adolescence.

At Wave 2 (13-years), child participants were asked if they had been bullied in the last three months. The current study uses data from the participants who gave data on this variable. This resulted in a total sample size of 7165 child participants: 3509 (49%) male and 3656 (51%) female.

Measures

Gender.

In the GUI dataset provided for secondary analysis, gender was recorded at Wave 1. This variable was coded as female (1) and male (0) for the current analysis.

Being bullied.

Child cohort participants were asked at Wave 2 only “Have you been bullied in the last 3 months?” and responded using a dichotomous scale of yes (1) and no (0). The current study does not include any details on the type of bullying, because these were recorded only for participants responding yes (N = 652) on the binary bullying item, which would restrict the current study to a much smaller sub-sample.

Sociocultural factors.

Family trauma and transition. An additive measure of family trauma and transition was created by summing the Wave 1 parent report on whether the child at 9-years had recently experienced the separation/divorce of a parent, death of a parent, death of close family member, death of close friend, moving house, moving country, serious illness / injury, serious illness / injury of a family member, mental disorder in immediate family, conflict between parents, prison in prison, stay in foster / home residential care.

Family poverty. In Ireland, the government provides a medical card to low-income families to help them cover their medical expenses. As such, the medical card is a discrete, government regulated representation of family poverty. In the GUI, parents were asked "Is your family covered by medical card?" Three response options were possible: 1 = Not covered, 2 = Yes, doctor only card, and 3 = yes, full card; each corresponding to an increased level of poverty. This variable was measured at Wave 1.

School social disadvantage. Schools with a high proportion of low-income students in Ireland are given the government classification of Delivering Equality of Opportunity in Schools (DEIS). In Wave 2, school principals were asked "Does your school take part in the DEIS Support Program?" Participants responded using a dichotomous scale of yes (1) and no (0).

Neighborhood disorder. We used the following items from the parent report on neighborhood conditions at Wave 1: "How common in your area: Rubbish & litter" "How common in your area: homes & gardens in bad condition" "How common in your area: vandalism" How common in your area: people being drunk/taking drugs". Each item was measured with a 4-point Litert type scale (1 = not frequent, 4 = very frequent). The reliability of these items to represent neighborhood disadvantage is indicated in the structural equation model factor scores.

Connection and Caring.

Parental rapport. In Wave 2, child cohort participants were asked if they got along well with their mother, father, and any stepparents, using a dichotomous response scale (yes/no). These items were averaged to give a total score of parental support across divergent family structures.

Friendship closeness. In Wave 2, child cohort participants were asked "How many of these (people who you are friends with) would you describe as close friends?". Participants gave the exact number in their response.

Teacher praise. In Wave 2, child cohort participants also responded to the item "A teacher praises you for answering a question". This was measured on a 4-point Likert type scale (1 = never, 4 = very often).

Competence, confidence and character.

In Wave 3, child cohort participants were asked a set of individual items referring to their perception of themselves on leaving secondary school. All items were measured using a 3-point Likert type scale (1 = no; 2 = yes some; 3 = yes a lot). The first item asked whether the adolescent had increased in self-confidence since beginning secondary schooling. The second item asked whether the adolescent thought they had developed into a well-balanced person. The third item asked whether the adolescent felt prepared for adult life, and the fourth item asked whether secondary schooling had helped the adolescent think for themselves. The items were used as a latent variable in the analysis (α= .75).

Missing Data

There were 5,415 (73%) child cohort participants who had no missing data on any of the study variables across Waves 1-3. Missing data within waves increased across time. Of the child participants, in Wave 1, 14 had some missing data (0.2 %), in Wave 2, 692 had some missing some data (9.3%), and in Wave 3, 1,459 had some missing data (19.7%). Little's MCAR was significant for the set of Wave 2 and 3 variables (MCAR) (χ2 (432) = 594.823, p = .000), indicating that the

data were not missing completely at random. Given that there was almost complete data on Wave 1, analysis of missing data was conducted on Waves 2 and 3 only.

Binary logistic regression models were used to test whether having any missing data at Wave 1 (1 = yes, 0 = no) and Wave 3 (1 = yes, 0 = no) was systematically related to gender, family poverty, school poverty, family trauma and neighborhood disadvantage (mean of the 4-items). In the first model, the dependent variable was missing at Wave 2. This first model was significant ($\chi 2$ (5) = 13.27, p = <.05) with family trauma and transitions as significant predictor of missingness at Wave 2 (β = .13 ; p = <.05). In the second model, the dependent variable was missing at Wave 3. This second model was also significant ($\chi 2$ (5) = 52.13; p = < .001) with school social disadvantage (β = .32 ; p = <.001) and family poverty (β = .20 ; p = <.001) significantly predicting missingness at Wave 3.

Analysis Plan

First, we examined the between group differences in antecedents and outcomes of being bullied (Table 2). Next, we conducted a correlation analysis in SPSS version 24 to identify the network of associations between the study variables (Table 3). Finally, we computed a structural equation model (SEM) in Mplus version 8.1. In the model (with main types of pathways represented in Figure 1), we regressed early adolescent connection and caring on gender, current school social disadvantage, and childhood sociocultural risk factors (family poverty, neighborhood disorder, and family trauma and transitions). We also regressed being bullied on the same variables and on early adolescent connection and caring, to establish risk factors for being bullied stemming from the young person's personal background and social context. Finally, we regressed the late adolescent competence, confidence and character variable on all the other variables in the model, to establish the predictors of this outcome variable. The fully fitted model represented a developmental system (Figure 1), and allowed us to better isolate the impact of connection and caring on being bullied (research question 1), and of connection, caring and being bullied on personal competence, confidence and character (research question 2), after accounting for the

variance explained in these different outcome variables by sociocultural factors and gender. Furthermore, it enabled us to identify the effects of specific sociocultural factors and gender on all these main study variables (research question 3). We want clarify that the measured variables were not longitudinal, therefore we did not use any of the measures as controls. The GUI data investigated these variables with the selected measures only in a single wave. To ensure that the results were statistically representative to the population, we applied the weighting variable from Wave 2 of the GUI in the variable command of Mplus.

Results

Descriptive statistics

Descriptive statistics are displayed in Tables 1, 2 and 3. Around half the sample were female (51%), and 14 per cent attended socially disadvantaged secondary schools. Approximately 9 per cent of participants reported having been bullied in the past three months. There were no gender differences in being bullied, however, more participants who reported being bullied attended socially disadvantaged schools. Participants who were bullied also had higher levels of family poverty, neighborhood disorder, family trauma and transitions. In turn, they had lower levels of friendship closeness and rapport with parents in early adolescence, and reports of feeling confident, well balanced, prepared for adult life, and thinking independently in late adolescence. The only study variable that did not associate with being bullied in the between group differences tests, was receiving praise from teachers in early adolescence.

Structural Equation Model

Model fit statistics indicated that the SEM fit the data well, with a root mean square error of approximation (RMSEA) of .03, and a comparative fit index (CFI) of .93. The Chi Square test of model fit was significant ($\chi^2 = 683.35(74)$, $p = <.001$) likely owing in part to the large sample size. The items modelled to represent neighborhood disorder, and competence, confidence and character, all loaded at .60 or above onto their respective latent variable (Table 4). Because of the large sample size, many of the test results were small but significant. In the text, we focus on explaining the test

results that were a standardized beta weight of .05 or above. All these test statistics of b <.49 were statistically representative to the wider population of children that the child cohort was designed to represent, as indicated by significant tests of probability. The beta weights and tests of their significance for all pathways are displayed in Tables 5 to 7.

Research Question 1: Relational Predictors of Being Bullied

The standardized results for predictors of being bullied are displayed in Table 5. In the SEM, the strongest predictor of being bullied in early adolescence from the modeled predictors representing connection and caring, was having fewer close friendships with peers. This was followed in strength by lower levels of rapport with parents. There was no notable effect of teacher praise on being bullied (Table 5).

Research Question 2: Relational Predictors of Competence, Confidence and Character

In late adolescence, perceiving oneself with higher levels of competence, confidence and character was most strongly predicted by having better rapport with parents, followed by a negative association with family trauma and transitions. The other predictor of note was teacher praise, and there was no impact of close friendships on these PYD variables (Table 7).

Research Question 3: Sociocultural Factors and Gender as Predictors of Being Bullied and PYD

Several sociocultural factors and gender had a notable role in the developmental system modelled in the SEM (Tables 6 and 7). First, being female predicted higher levels of being praised by teachers. It also predicted lower levels of rapport with parents in early adolescence. Second, neighborhood disorder predicted relationships with parents and peers, and being bullied, in early adolescence. Third, family trauma and transitions in childhood predicted lower levels of rapport with parents in early adolescence, and competence, confidence and character in late adolescence. Fourth, family poverty had a negative impact on rapport with parents and a positive impact on being bullied, in early adolescence. Fifth, the strongest predictors of confidence, competence and character in late adolescence was relationships with parents in early adolescence, followed by

family trauma and transitions in childhood. Finally, school social disadvantage had no notable impact on any of the outcome variables, except that it very weakly impacted having a greater number of close friendships in early adolescence.

Discussion

This study investigated how positive youth development (PYD), being bullied, sociocultural risk factors and gender operated together in a developmental system in a nationally representative sample of young people in Ireland, studied across the ages of 9-, 13- and 17-years. We found that individual sociocultural risk factors predicted PYD outcomes, and that within the PYD system, experiences of connection and caring predicted the later development of confidence, competence and character. We also examined the role of being bullied within this system, finding that it is meshed within the system as an antecedent and outcome of PYD.

Concerning Research Question 1, we found that the most powerful predictor of being bullied was friendships, followed by parents. This data, in line with the literature (Gini et al., 2018; Chong et al., 2010; Murray-Harvey & Slee, 2010), suggests how individual socio-relational competencies and caring derived from peers and parents help adolescents adequately manage bullying episodes. In this sense, having ties between peers and having good ties with parents can provide the adolescent with adequate emotional skills to overcome traumatic events. These factors can help adolescents build a sense of resilience. We also found that teacher praise and acknowledgement of individual student's work did not have an impact on being bullied. In the current study, we measured relationships with teachers as teachers' appraisals of adolescents' work. If we had measured instead teachers' support for adolescents' social and emotional functioning we might have found some impact. However, the current finding suggests that standard academic practices in classrooms are not enough to offset the trauma of being bullied.

Concerning research question 2, relationship with parents was closely connected to adolescents' competence confidence and character. In line with our theoretical framework and with prior research (Muijs & Reynolds, 2017), parents provided adolescents with social skills and

appropriate relationships for the development of an integral self. It is possible that an adolescent who has a good relationship with parents can increase their awareness of their potential and can therefore strengthen their social and emotional strategies useful for building a positive self-image, despite suffering victimization. By experiencing this protective factor, the adolescent may have the opportunity to attain their developmental tasks in late adolescence, experimenting and learning to adequately exploit the psychosocial needs necessary for the development of adequate competencies connected with personal identity. In the Growing Up in Ireland study, nearly all participants at age 13 years reported getting on well or very well, with their mother and father (approximately 99%), however fewer participants reported spending time talking to their mother (70%) or father (60%) (Economic and Social Research Institute, 2012 a). Further research is needed to untangle the positive impact of perceiving relational warmth and harmony, and the daily influence of parental coaching and modelling, on the development of adolescents' psychosocial competencies.

Teacher praise also impacted competence, confidence and character in late adolescence. Here, in line with Bandura's theory (Bandura, 1993; Bandura & Schunk, 1981), positive feedback from teachers may have encouraged adolescents to rely on their personal abilities, and to develop a more positive sense of self-efficacy in late adolescence. Interestingly, although adolescents had different teachers between early and late adolescence, the effect of teacher praise and acknowledgement at age 13-years was sustained through time. This could represent a general stability across time in adolescents' tendency to engage in classrooms which encourages positive responses from teachers (Symonds, Schoon & Salmela-Aro, 2016), promoting conditions for positive psychological functioning in late adolescence. Overall, the results indicate that caring and connection with peers, parents and teachers can enhance the adolescent's internal resources, to the point of making him feel confident to manage the psychosocial challenges that may arise in late adolescence (Muscarà et al., 2018; Kelly & Antonio, 2016).

In the Growing Up in Ireland study at age 13-years, girls have reported higher quality relationships with their teachers, and boys have reported more negative interactions with their

teachers (Economic and Social Research Institute, 2012 b). Also, children whose parents had a university level degree reported higher quality relationships with their teachers, than children whose parents had a lower educational level (Economic and Social Research Institute, 2012 b). These findings signal two key sociocultural factors influencing children's relationships with teachers, which are malleable and open to intervention. Accordingly, agencies wishing to support positive youth development might consider enhancing students' relationships with their teachers via the mechanisms of gender identity and parental socialization. Also, supporting teachers to reduce bullying in their classrooms and schools through teacher training has had some positive results in Ireland (James et al., 2008). Helping teachers understand key factors in child development, and how these can be impacted by risk and protective factors, can help them manage the complexity of preventing bullying in their schools.

The study also found that close friendships for adolescents predicted competence, confidence and character. This suggests how support from peers and relatedness with peers is important because it contributes to developing those social skills useful for structuring an integral self. Peers can act as a mirror that adolescents use to find confirmation, to structure their identity and to help develop their self-esteem (Thompson, Wojciak & Cooley, 2016; D'Urso, Petruccelli & Pace, 2018). In the Growing Up in Ireland study, age 13-year-old participants rated friends as the second most important group of people to turn to for support and advice, after their mothers, and this was consistent across genders (Economic and Social Research Institute, 2012 a). Enabling ways that friends can support each other during the school day, and outside of school by providing safe places for peer socialization, is another way that educators and youth services can facilitate positive youth development.

In the current research, we found that being bullied negatively predicted competence, confidence and character in late adolescence. This result is in line with the research into victimization as a trauma that incurs a stress response, negative self-perception, depression and anxiety in adolescence, creating challenging circumstances for positive psychological development

(e.g., Mishna et al., 2016, Malecki et al., 2016). Being bullied can give the adolescent an emotional fragility that leads them to an insecure reflection of their skills, reduces their resilience, and leaves them few strategies to deal with the developmental tasks of late adolescence (Extremera et al., 2018; Boulton et al., 2010). In Ireland, adolescents have reported feeling stressed and traumatized as a result of being bullied at school, with those experiencing more significant negative victimization events at school, having higher levels of post-traumatic stress disorder in late adolescence and young adulthood (Mc Guckin, Lewis, Cummins & Cruise, 2011). Certainly, intervening to prevent bullying at schools is of high utility for any service wishing to prevent mental illness and promote positive functioning in adolescence and young adulthood.

Concerning research question 3, the study found that being female was closely linked with teacher praise. This may result from most teachers in Growing Up in Ireland being female. It might be possible that due to errors in evaluations and to gender biases, female teachers believe that girls, because they are of the same sex, are more deserving than male boys because they are more capable (Frawley, 2005).

A further finding was that many of the caring and connection variables were negatively predicted by neighborhood disorder. In a case study of a low-income neighborhood in Ireland, researchers observed that high levels of drug and alcohol use in the community had created a norm of fear among local residents. This in turn, inhibited local residents from participating in community events (Olagnero, Meo & Corcoran, 2005). Furthermore, families reported turning 'inwards' to caring for their own affairs, enhancing the importance of high quality family relationships vital but also preventing broader social ties from forming (Olagneroe et al., 2005), which could support young people's development by providing them with additional adult role models and mentors.

Interestingly, school social disadvantage had no notable impact on the outcome variables. In Ireland, the government puts more financial resources into low-income schools, to support children through free lunches and snacks, and to support teachers by providing curricular resources.

Although neighborhood and family context did impact the outcomes, this Irish national investment in schools may have ironed out the impact of school poverty on PYD. Indeed, there was even a positive impact of school social disadvantage on close friendships in early adolescence. Perhaps the quality of schooling supported by the DEIS program in Ireland encouraged low-income adolescents to form positive relationships at school, where principals and teachers were invested in establishing a supportive school community. In this manner, the low-income school community might have acted as a resource to encourage prosocial friendships.

Family poverty was also a salient risk factor for positive relationships with parents, teachers and peers in early adolescence, perhaps because it can stimulate negative emotions and frustrations that can stimulate poorer quality social interactions between adolescents and parents (Di Blasio, 2005). Also, teachers might stereotype against poorer children, because of perceived differences in culture between the low-income children and middle-class teachers.

Despite the connection between family poverty and relationships in early adolescence, family poverty had barely any impact on competence, confidence and character in late adolescence. This suggests that because individuals are poor does not mean that they are not well-adjusted. Rather, it is the trauma associated with poverty that negatively impacts development, because it affects the adolescent's socio-emotional competences (Van der Kolk, 2003). Accordingly, in our study, family trauma and transitions in childhood were negatively related to confidence, competence and character in late adolescence. Traumatic experiences have been found to make adolescents more psychologically fragile (Cook et al., 2017). This can occur as traumatic experiences weaken adolescents' emotional resources, making it more difficult for adolescents to cope effectively with structure a good image of oneself and one's personal abilities of confidence, competence and characters (Putnam, 2006; Van der Kolk, 2003). Early intervention programs that help parents be more resilient to the challenges of parenting in poverty, such as the Irish Preparing for Life program, are therefore an important tool that policy makers can use to promote positive youth development in adolescence (Doyle, Harmon, Heckman, Logue & Moon, 2017).

Limitations

Despite the strengths of this study, some limitations should also be considered. First, the use of self-report questionnaires is subject to social desirability effects. Second, we did not include measures of mental illness or psychopathology which might have proven to be important antecedents or outcomes of bullying in the developmental system. Third, it is possible that the effects of variables on outcomes are overestimated or underestimated. This risk is created through measurement decisions and contextual factors relating to implementation, meaning that replicas of the same study with different measures and sample could achieve slightly different outcomes. This is a different type of risk from modelling inaccuracy that generates a causal error.

A fourth limitation is the use of dichotomous variables and single items in the model. Ideally, we would have used multiple items to measure bullying and the different aspects of competence, confidence and character. However, like other researchers (e.g., Pace et al., 2020; Ttofi et al., 2011; Wang et al., 2010), we used a single item to measure bullying. Using single items does not lose the objective quantification of the measured variable. Also, models generated using secondary data are always subject to the limitation of using the available data, rather than being able to plan at the outset how variables will be measured. Having shorter measures is typical, because nationally representative longitudinal studies like Growing Up in Ireland (also for example Growing Up in Scotland, the Millennium Cohort Study, and the Longitudinal Study of Australian Youth) are designed to measure the maximum number of variables for scientific and political purposes, rather than measuring specific domains of psychology and behavior in depth. When using secondary data analysis, researchers should evaluate these measurement limitations against the strengths of using large-scale nationally representative datasets for identifying robust patterns of human functioning within populations.

Conclusion

The current study demonstrates that it is important to study positive youth development and being bullied as a developmental system that occurs in sociocultural context. In this system, being

bullied acts as a negative influence on later development, for example by negatively predicting the development of competence and confidence in late adolescence. Also, in early adolescence, being bullied has reciprocal relations with negative relationships with parents and peers. However, being bullied in early adolescence does not have an overwhelming influence on the system; the longer-term associations of being bullied are not particularly strong, suggesting that for many adolescents thriving is fully possible when they have supportive relationships. Importantly, sociocultural risk factors especially disorderly neighborhoods and childhood experience of family trauma and transitions, have a direct negative impact on competence, confidence and character in late adolescence, that works independently of their connection with being bullied. This draws attention to the important role of sociocultural context in shaping adolescent psychological and social development, providing a target for intervention and further research.

Organizations can address this issue in part by investing in social and emotional learning programs for parents, teachers and adolescents, that aim to support positive relationships within families, schools and communities. Social and emotional learning programs can counteract the effects of victimization and reduce its effects by supporting aspects of adolescents' emotional and social development that are not always salient to teachers and parents (Caprara, 1992; Caprara et al., 2014). If directed at teachers, peers and family members, these programs should help people create welcoming and inclusive environments, filling the gaps that disadvantaged contexts and traumatic events may have on individual adolescents. Furthermore, the programs can give individual adolescents the tools to improve themselves and their internal worlds. Importantly, this study finds that positive relationships in childhood and adolescence are critical for helping adolescents structure a good sense of identity, and to develop their competence, competence and competence as they move closer to adulthood.

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Tables and Figures

Table 1. Descriptive statistics

Categorical variables	N	Min	Max	Amount	%
Being bullied	7418	0	1	652	8.8
Female vs. male	7165	0	1	3656	51.0
School social disadvantage	6861	0	1	974	14.2
Quantitative variables	**N**	**Min**	**Max**	**Mean**	**SD**
Family poverty	7418	1	3	2.62	0.77
Neighborhood rubbish	7411	1	4	2.13	0.92
Neighborhood bad condition	7411	1	4	1.68	0.67
Neighborhood vandalism	7410	1	4	1.71	0.75
Neighborhood substance abuse	7405	1	4	1.61	0.77
Family trauma and transitions	7418	0	13	1.43	1.25
Rapport with parents	7301	1	3	2.75	0.40
Friendship closeness	7390	0	11	4.54	2.54
Teacher praise	7409	1	4	2.62	0.85
Self-confidence	5967	1	3	2.25	0.67
Well balanced person	5964	1	3	2.39	0.62
Preparation for adult life	5966	1	3	2.05	0.69
Independent thinking	5969	1	3	2.35	0.65

Table 2. Between group differences in being bullied

	Not bullied			Bullied			Between group differences		
Categorical variables	N	%		N	%		χ^2	df	*p*
Female	3345	51.2		311	49.7		.497	1	.481
School social disadvantage	857	13.7		117	19.7		16.154	1	.000
Quantitative variables	N	M	SD	N	M	SD	t	df	*p*
Family poverty	6766	1.36	.75	652	1.54	.88	-5.03	746.86	.000
Neighborhood rubbish	6760	2.12	.91	651	2.25	.99	-3.19	760.54	.001
Neighborhood bad condition	6760	1.67	.66	651	1.79	.77	-3.96	744.90	.000
Neighborhood vandalism	6759	1.70	.74	651	1.87	.85	-4.89	747.69	.000
Neighborhood substance abuse	6755	1.60	.76	650	1.78	.87	-5.12	747.96	.000
Family trauma and transitions	6766	1.41	1.24	652	1.70	1.35	-5.21	760.41	.000
Friendship closeness	6741	4.63	2.54	649	3.65	2.40	9.82	794.00	.000
Rapport with parents	6659	2.76	.39	642	2.67	.44	4.86	737.77	.000
Teacher praise	6760	2.62	.85	649	2.59	.94	1.04	753.20	.301
Self-confidence	5451	2.27	.66	516	2.09	.75	5.04	594.79	.000
Well balanced person	5448	2.40	.62	516	2.28	.66	3.83	602.47	.000
Preparation for adult life	5449	2.06	.67	517	1.99	.73	1.96	602.53	.050
Independent thinking	5452	2.36	.64	517	2.28	.70	2.54	601.91	.011

Table 3. Correlations among variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Being bullied	1														
2. Female vs. male	-.008	1													
3. Family poverty	.066***	.046***	1												
4. Family trauma & transitions	.065***	.033**	.227***	1											
5. Neighborhood rubbish	.040***	.027*	.119***	.032**	1										
6. Neighborhood bad condition	.052***	.032**	.163***	.041***	.540***	1									
7. Neighborhood vandalism	.064***	.026*	.153***	.064***	.547***	.593***	1								
8. Neighborhood substance abuse	.066***	.033**	.162***	.071***	.471***	.502***	.666***	1							
9. School social disadvantage	.049***	-.011	.210***	.064***	.093***	.105***	.129***	.133***	1						
10. Close friends	-.109***	-.027*	-.055***	-.039***	-.017	-.039***	-.030*	-.037**	-.039***	1					
11. Rapport with parents	-.064***	-.061***	-.093***	-.075***	-.045***	-.048***	-.048***	-.045***	-.016	.064***	1				
12. Teacher praise	-.013	.069***	-.019	-.018	-.006	-.011	-.011	-.004	-.029*	.058***	.133***	1			
13. Self confidence	-.072***	-.047***	-.068***	-.090***	-.024	-.029*	-.065***	-.074***	-.027*	.064***	.149***	.095***	1		
14. Well balanced person	-.053***	-.035**	-.085***	-.076***	-.019	-.037**	-.046***	-.066***	-.041**	.047***	.130***	.086***	.583***	1	
15. Preparation for adult life	-.027*	-.030*	-.002	-.071***	.006	.016	.001	-.007	.022	.043***	.128***	.050***	.364***	.392***	1
16. Independent thinking	-.035***	.025	-.014	-.069***	-.028*	-.005	-.032*	-.046***	-.002	.023	.101***	.032*	.345***	.404***	.514***

Note: * p <. 05, ** p <. 05, ** p <.001

Table 4. Latent variable factor loadings

	b	SE	t	*p*
Neighborhood disorder				
Neighborhood rubbish	0.68	0.01	51.84	0.000
Neighborhood bad condition	0.71	0.02	45.97	0.000
Neighborhood vandalism	0.86	0.01	91.11	0.000
Neighborhood substance abuse	0.77	0.01	62.15	0.000
Competence, confidence and character				
Self-confidence	0.71	0.02	42.51	0.000
Well balanced person	0.76	0.02	52.19	0.000
Preparation for adult life	0.60	0.02	30.37	0.000
Independent thinking	0.60	0.02	30.84	0.000

Table 5. Predictors of being bullied

	b	SE	t	p
Neighborhood disorder	0.05	0.02	2.37	0.018
Female	-0.01	0.02	-0.54	0.590
Family trauma and transitions	0.02	0.02	0.88	0.381
Family poverty	0.05	0.02	2.41	0.016
School social disadvantage	-0.02	0.02	-1.13	0.257
Teacher praise	0.03	0.02	1.28	0.201
Close friendships	-0.10	0.02	-5.99	0.000
Rapport with parents	-0.06	0.02	-3.07	0.002

Table 6. Predictors of connection and caring

	b	SE	t	*p*
	Close friendships			
Neighbourhood disorder	-0.05	0.02	-2.98	0.003
Female	-0.02	0.02	-1.20	0.230
Family trauma and transitions	-0.02	0.02	-1.37	0.170
Family poverty	-0.03	0.02	-1.69	0.090
School social disadvantage	0.04	0.02	2.46	0.014
	Teacher praise			
Neighbourhood disorder	-0.01	0.02	-0.48	0.631
Female	0.06	0.02	3.46	0.001
Family trauma and transitions	-0.02	0.02	-1.26	0.208
Family poverty	-0.03	0.02	-1.31	0.192
School social disadvantage	0.00	0.02	-0.05	0.964
	Rapport with parents			
Neighbourhood disorder	-0.05	0.02	-2.29	0.022
Female	-0.07	0.02	-4.13	0.000
Family trauma and transitions	-0.06	0.02	-3.00	0.003
Family poverty	-0.09	0.02	-4.87	0.000
School social disadvantage	-0.01	0.02	-0.29	0.771

Table 7. Predictors of confidence, competence and character

	b	SE	t	*p*
Neighbourhood disorder	-0.04	0.02	-1.73	0.084
Female	-0.02	0.02	-1.17	0.241
Family trauma and transitions	-0.10	0.03	-3.93	0.000
Family poverty	-0.04	0.03	-1.34	0.179
School social disadvantage	-0.01	0.02	-0.24	0.813
Teacher praise	0.08	0.02	3.67	0.000
Close friendships	0.06	0.02	2.70	0.007
Rapport with parents	0.14	0.02	6.61	0.000
Being bullied	-0.06	0.02	-2.45	0.014

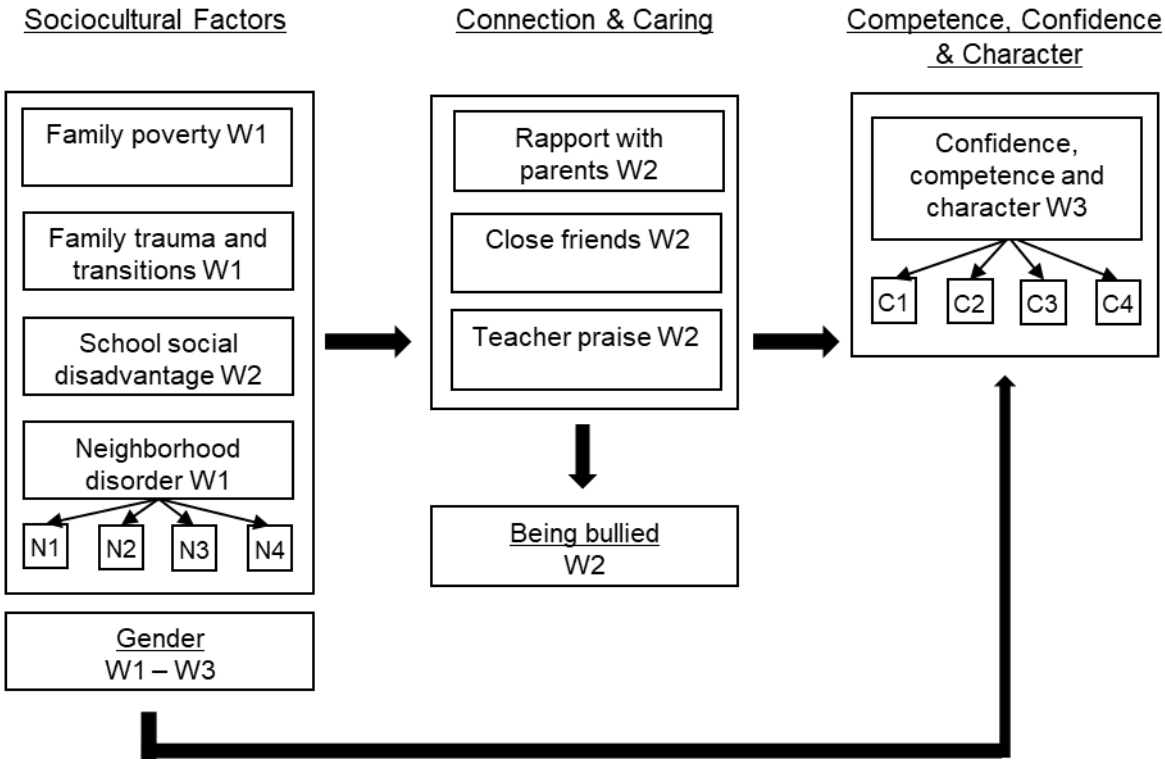

Figure 1. *Model pathways*

Notes: Wave 1 = W1, wave 2 = W2, wave 3 = W3; neighborhood items are N1 = rubbish, N2 = bad condition, N3 = vandalization, N4 = drugs and alcohol; confidence, competence and character items are C1 = self-confidence, C2 = well balanced person, C3 = prepared for adult life, C4 = independent thinking.