The role in bullying: effect of the family atmosphere and parenting style of mothers and fathers

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Abstract

Bullying at school negatively affects the class environment as well as all young people who participate in the bullying. One of the most important factors related to bullying is family. In the current study, the effect of family atmosphere and parenting style on different roles in bullying (bullies, victims, defenders) was examined in 155 adolescents (aged 13-15). It was found that the family of bullies had less cohesion and control, more conflicts and fathers who demonstrated desultory parenting. Victims had higher family control, less family cohesion, fewer fathers with positive parenting and slightly higher positive parenting of mothers. Defenders had families with higher expressivity and organization, fewer conflicts, more fathers with positive parenting, fewer fathers with directive parenting and fewer mothers with autonomous parenting. Defenders were also predicted by the hostile parenting of fathers.

Keywords

bullying, family atmosphere, parenting style, bullies, victims, defenders

Introduction

Bullying is an undesirable social-pathological phenomenon that occurs at almost every school to a certain degree (Aluede et. al., 2008; Frisén et al., 2008; Hong & Espelage, 2012; Hellström et al., 2015; Thornberg, 2015). The prevalence of bullying is relatively high with the National Center for Educational Statistics (2016) putting it at 20.8%. Nansel et al. (2001) have claimed a rate of 29.9% while Modecki et al. (2014) have put the prevalence of bullying at 35%. Bullying is a behavior characterized by maliciousness, deliberate and often repeated aggressive conduct (Rigby, 2003; Aluede et al., 2008; Jansen et. al., 2011) which is manifested in the form of physical, verbal or indirect bullying (Olweus, 1991; 1995). Bullying is the problem of a group in which individuals play different roles: bully, victim, defender, motivator and assistant as well as outsiders who do not belong to the group (Salmivalli, 1999;

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Sutton & Smith, 1999). Bullying is a risk factor for serious mental health problems in both victims (Gladstone et al., 2006; Gini & Pozzoli, 2013; Gini & Espelage, 2014; Van Geel et al., 2014; Nielsen et al., 2015; Reed et al., 2015) and aggressors (Ttofi et al., 2012; Copeland et al., 2013), and these problems tend to prevail even into adulthood. Bullying represents a multidimensional phenomenon which arises out of the complexity of family and peer relationships, school community and culture (Swearer & Doll, 2001). It can also be considered a manifestation of defense mechanisms, which can be a reaction to existential questions as well as identity confusion (Vindišová, 2010; Vindišová, 2014). Several predictors of bullying have been identified (Cook et al., 2010; Atik & Güneri, 2013; Kljakovic & Hunt, 2016). One of the most important predictors of bullying is family (Papanikolaou et al., 2011; Gómez-Ortiz et al., 2015; 2016; Nocentini et al., 2019). To a certain extent, children's experience with the family environment determines their ability to adapt to the school environment and influences the way in which they get on with classmates (Parke & Ladd, 1992).

There is a lot of evidence that factors related to family such as family situation, socio-economic status, mental health of parents and attachment to parents (Dykas et al., 2008; Kokkinos, 2013); conflicts between parents (Craig et. al., 1998; Baldry & Farrington, 2000); parenting styles (Shields & Cicchetti, 2001; Dake, Price, & Telljohann, 2003; Georgiou, 2008; Papanikolaou et al., 2011); maladaptive behavior of parents such as abuse and neglect (Lereya et al., 2013; Veenstra et. al., 2005; Lemstra et. al, 2012); communication in the family (Cava et. al., 2007; Segrin et. al., 2012), or parental involvement and support (Fanti et. al, 2012; Wilson et. al, 2012) are predictors of bullying.

There is also evidence that different roles in bullying are related to different risk or protective factors. For bullies, there is a typical absence of a positive approach and warmth (Bowes et al., 2009). Bullies perceive their family as less cohesive, with a lower level of parental control

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and tendency to use physical punishment (Espelage et al., 2000). In their family, conflicts and hostility are dominant. For victims, overprotective parenting is typical especially from the mothers (Smith & Myron-Wilson, 1998; Georgio, 2008). Extreme parental involvement, characterized by intense closeness in a parent-child relationship, could be a problem in higher levels of victimization, especially in boys (Dake et al., 2003). There have only been a few studies focusing on the specific characteristics of defenders (e.g., Barchia & Bussey, 2011; Nickerson et al., 2008). Moreover, these studies have focused more on the personal characteristics rather than the family characteristic of the defenders. It seems that there have been few studies looking at the specific type of family atmosphere (e.g., Espelage et al., 2000; Bowes et al., 2009) and mothers' and fathers' parenting styles separately (e.g., Schaffer et al., 2008) for children with different roles in bullying. This raises the question as to whether there are specific characteristics in family atmosphere and parenting styles of fathers and mothers for the bullies, victims and defenders.

The aim of the present study was to explore family atmosphere (cohesion, expressiveness, conflicts, organization and control), parenting styles of fathers and mothers (positive parenting, directive parenting, hostile parenting, autonomous parenting and desultory parenting) in the context of the different roles in bullying (bullies, victims and defenders).

Methods

Participants

The participants of the research were 160 adolescents aged between 13 and 15 ($M = 13.93$, $SD = 0.41$). However, five adolescents could not be included in the research because they did not provide any data on bullying. The total number of participants was therefore 155 adolescents (78 boys and 77 girls). About 53% of participants had been involved in bullying, out of whom 10% were in the position of aggressors, 17% in the position of victims, and 27%

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in the position of defenders. All the aggressors were boys and the boys also represented 77% of the victims. 78% of the defenders were girls and approximately the same number of children had not been involved in bullying (53% of them being girls). About 6% had been bullied by one or more girls, 10% by one or more boys, and about 4% had been bullied by both girls and boys. About 62% of participants were not afraid of bullying, 20% seldom afraid of bullying, 12% sometimes afraid of bullying, and 4% fairly often afraid of bullying. 70% of the participants stated that they had at least 1 good friend in the class, about 24% had 6 or more good friends and about 2% did not have any good friends in the class. About 32% of participants did not like school and about 10% liked school. It was found that about 27% had never seen bullying while 15% had often or very often (10%) seen bullying.

Procedure

In the first stage, primary schools were addressed with a request to cooperate in research looking at social relationships in the class. Pupils and parents confirmed participation in the study with informed consent and were also informed that the study would not publish information about the name or location of the school. The research was also carried out with the consent of the headteachers at the schools. The selected pupils were asked to participate in the research after consent of headteachers and parents, being their legal representatives, had been granted. The research was conducted by a researcher who provided exact instructions on completing the questionnaires in the classroom. The term bullying was explained to the pupils and any questions were clarified and answered. Anonymity and voluntary participation in the research were repeatedly emphasized as well as the importance of giving true answers. The average time needed to complete the questionnaire was 25 minutes. Participation in the research was anonymous and voluntary. Data collection was carried out at six different primary schools (eight different classes) in various regions in Slovakia.

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Measures

The role in bullying was measured by the *Olweus' Bully/Victim Questionnaire* (Olweus, 2006). Although the questionnaire originally consists of 40 items, for the purpose of our research 12 items focused on analyzing the different roles in bullying in the class (aggressors, victims, defenders, not involved in bullying) were selected. In the introduction, the participants answered 2 questions: "How do you like school?" and "How many good friends do you have in the class?". The responses to these questions were given on a 5-point Likert scale. Subsequently, the definition of bullying was described. This was followed by 10 questions aimed at looking for the different roles in bullying (aggressor, victim, defender), e.g., "How often have you been bullied in the last few months?"; "How often have you participated in bullying other pupils in the last few months?" and "How often have you bullied other pupils at school in the last few months?". Participants reported how often they had engaged in the behavior described in each item on a five-point scale (1 = "Never happened to me", 2 = "happened once or twice", 3 = "2 or 3 times a month" 4 = "About once per week "and 5 =" Several times a week "). The bullying is confirmed (Solberg & Olweus, 2003) if it has occurred in the last two or three months and not only if it is happening right now or has happened in the last week. Due to the length of the two others questionnaire and given that the focus was only on the different roles in bullying, the questions about specific forms of bullying, location of the bullying, information about the teachers, peers, and parents being informed about the bullying and how they reacted to the bullying were excluded.

The parenting styles of mothers and fathers were explored by *ADOR* (Adolescents about Parents, in Slovak or Czech) (Matejček & Říčan, 1983). ADOR was originally based on a Children's Report of Parental Behavior Inventory (CRPBI; Schaefer, 1965) and has been developed for clinical practice and adolescent research in Czechia and Slovakia. The questionnaire contains 100 items that are equally distributed with respect to exploring the

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parenting styles of fathers and mothers. The questionnaire is for pubescents and adolescents aged from 13 to 18 and examines the following factors: 1) Positive interest vs hostility. Positive interest (e.g. "Can please and encourage me when I'm sad") includes the pleasing, listening to and praising of adolescents. Hostility (e.g., "Always complaining to someone about my behavior") involves anger, impatience, lack of interest, contempt and even hatred towards adolescents. 2) Directiveness vs autonomy. The directiveness scale (e.g. "Always control what I do outside or at school") expresses many rules and enforcing of their observance by a child through strict control of their behavior. The items examine the enforcement of parents' instructions. Autonomy (e.g., "When I go out, lets me decide when I have to be back") leaves freedom and liberty to a child without parents' interference. 3) Desultoriness in upbringing (e.g., "It is very difficult to be clear in his/her wishes and instructions") has a significantly negative aspect; it is related to indifference as a manifestation of more-or-less hidden hostility. The overall score for the subscales can vary from negative to positive values and depends on the scoring on the items and their computing to a subscale score. A higher score expresses a higher level of the measured construct. The validity and reliability of the questionnaire were verified on the Czech and Slovak populations (Matějček & Říčan, 1983), e.g. test-retest reliability values for mothers' parenting were $r = 0.70-0.83$ and for fathers' parenting $r = 0.71-0.86$. ADOR is widely used in the Slovak and Czech populations in clinical practice, in family counseling and family therapy.

Family Environment Scale (Hargašová & Kollárik, 1992) is a self-reported scale for the description of family atmosphere. It is based on Moos' conception of the family system (Moos & Moos, 1976) and has been developed for those older than 9 in the Czech and Slovak populations. The questionnaire consists of 100 items related to family life which are clustered in three dimensions and 10 subscales. Every subscale has 9 items. For every item, children have to state whether it is true or false. In the current research, a two-dimension version (5

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subscales, 45 items) was used. In particular, the dimension of the relationships and the dimension of family system stability. The relationship dimension allows a description of the interpersonal relationships in the family, pointing to the emotional bonds in the family. This dimension includes three subscales: a) Cohesion (e.g., "Our family members really help and support each other") expresses the extent to which family members care about each other, care about how they help each other and support each other; b) Expressiveness (e.g., "Our family members keep their feelings and experiences to themselves") describes the extent to which family members can openly express their feelings and allow each other to behave openly and directly with each other; c) Conflicts (e.g. "In our family, quarrels are almost the order of the day") describe the extent to which family members are characterized by open expressions of anger, aggression, and conflicting interactions in general. The dimension of the family system describes the family hierarchy and how important rules are in the family. This consists of two subscales: d) Organization (e.g., "In our family, everything is carefully planned in advance") describes the extent to which the family has order and organization, how clearly the family rules and responsibilities are formulated; e) Control (e.g., "For our family members, rarely is anything forbidden") describes the extent to which the family is organized in a hierarchical manner and determines the degree of control that family members show to each other. The overall score for every subscale is transformed into normed scores. A higher score means a higher level of the measured construct. The validity and reliability of the questionnaire were verified on the Czech and Slovak populations (Hargašová & Kollárik, 1992), e.g. test-retest reliability values $r = 0.53-0.83$. ADOR is widely used in the Slovak and Czech populations in clinical practice, in family counseling and family therapy.

Data Analysis

Before the data analysis was carried out, the missing values were checked. The respondents whose data on bullying were missing ($N = 5$) were excluded from the analyses. After this

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exclusion, the missingness was about 3.4%. The missing values were imputed by using multiple imputation methods with a minimum of 5 imputations (Rubin, 1987) and at least 10 iterations per imputation (Reiter & Raghunathan, 2007). The multiple imputation was carried out using the package MICE (van Buren & Groothuis-Oudshoorn, 2011). For the analysis of the relationship between family atmosphere and parenting style, Pearson correlation coefficients were computed (see Figure 1 in supplementary materials). Welch t-tests looked at the differences between bullies, victims and defenders in enjoying school, number of friends, and fear of being bullied. Binary logistic regression was used to examine which family atmosphere and parenting style were specific for different roles in bullying (bully, victim and defender). Six regression models were estimated (three separately for family atmosphere and three for parenting styles). In every model, the number of friends and enjoying school were used as control variables. For the models' estimation, a Bayesian general linear model was selected with the aim of avoiding the problem with perfect separation in the binary logistic regression models (Gelman et al., 2008). For the Bayesian general linear model, the arm package (Gelman et al., 2008) was used. The data were analyzed using R statistical software (R core team, 2018); data and analytical code are available at <https://osf.io/an4rx/>.

Results

Descriptive statistics

Table 1 shows the descriptive information about the family atmosphere of the sample in subgroups according to the role in bullying.

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Table 1

Descriptive statistics of family atmosphere in subgroups according to the role in bullying

Aggressor (N = 15)	M	SD	SE	A	B	C	D	E
A cohesion	28.00	2.14	0.55	-				
B expressiveness	40.30	2.54	0.66	0.15	-			
C conflicts	46.70	2.65	0.68	0.27	0.04	-		
C organisation	67.40	2.44	0.63	0.70	0.25	0.39	-	
D control	60.82	2.00	0.52	0.18	0.20	0.79	0.35	-
Victim (N = 26)								
A cohesion	29.04	1.64	0.32	-				
B expressiveness	41.52	1.02	0.20	-0.14	-			
C conflicts	45.18	1.60	0.31	0.45	-0.04	-		
C organisation	68.71	1.35	0.26	-0.01	-0.23	-0.30	-	
D control	63.78	1.52	0.30	-0.06	-0.59	-0.11	-0.18	-
Defender (N = 41)								
A cohesion	30.63	1.84	0.29	-				
B expressiveness	42.63	2.27	0.36	0.16	-			
C conflicts	44.48	1.92	0.30	0.01	0.05	-		
C organisation	69.88	2.39	0.37	-0.05	-0.35	0.06	-	
D control	62.31	2.04	0.32	-0.03	0.005	0.02	-0.02	-
Not involved (N = 73)								
A cohesion	31.37	1.18	0.14	-				
B expressiveness	41.56	1.18	0.14	0.02	-			
C conflicts	45.49	1.51	0.18	0.07	0.20	-		
C organisation	68.51	0.85	0.10	0.18	-0.15	-0.02	-	
D control	62.86	2.42	0.28	-0.07	-0.01	-0.11	0.08	-

Note. A, B, C, D, E represent Spearman correlation coefficients between domains of family atmosphere

Table 2 shows descriptive information about parenting styles (separately for fathers and mothers) of the sample in subgroups according to the role in bullying. A correlation of the same parenting style in fathers and mothers was also calculated for every subgroup.

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Table 2

Descriptive statistics of parenting style in subgroups according to the role in bullying

Aggressor (N = 15)	M	SD	SE	1A	2B	3C	4D	5E
1 Fathers' positive parenting	6.67	7.32	1.89	.80				
2 Fathers' directive parenting	21.27	5.32	1.37		.83			
3 Fathers' hostile parenting	20.47	5.36	1.38			.91		
4 Fathers' autonomous parenting	19.87	6.13	1.58				.96	
5 Fathers' desultory parenting	19.87	5.05	1.31					.63
A Mothers' positive parenting	13.07	6.11	1.58					
B Mothers' directive parenting	18.47	5.84	1.51					
C Mothers' hostile parenting	6.27	5.64	1.46					
D Mothers' autonomous parenting	18.98	6.61	1.71					
E Mothers' desultory parenting	11.67	5.42	1.40					
Victim (N = 26)								
1 Fathers' positive parenting	0.38	6.94	1.36	.47				
2 Fathers' directive parenting	4.12	4.82	0.95		.20			
3 Fathers' hostile parenting	3.92	5.36	1.05			.15		
4 Fathers' autonomous parenting	9.19	5.51	1.08				.67	
5 Fathers' desultory parenting	0.04	4.58	0.90					.44
A Mothers' positive parenting	18.31	4.46	0.87					
B Mothers' directive parenting	12.12	5.19	1.02					
C Mothers' hostile parenting	6.50	5.22	1.02					
D Mothers' autonomous parenting	12.62	4.31	0.85					
E Mothers' desultory parenting	5.12	3.02	0.59					
Defender (N = 41)								
1 Fathers' positive parenting	20.59	6.50	1.01	.77				
2 Fathers' directive parenting	1.54	4.96	0.77		.62			
3 Fathers' hostile parenting	3.12	3.81	0.59			.89		
4 Fathers' autonomous parenting	20.27	4.52	0.71				.77	
5 Fathers' desultory parenting	0.83	4.58	0.71					.89
A Mothers' positive parenting	21.85	6.69	1.04					
B Mothers' directive parenting	10.46	5.04	0.79					
C Mothers' hostile parenting	2.76	4.49	0.70					
D Mothers' autonomous parenting	15.39	4.55	0.71					
E Mothers' desultory parenting	5.59	4.77	0.75					
Not involved (N = 73)								
1 Fathers' positive parenting	11.42	6.92	0.81	.73				
2 Fathers' directive parenting	5.15	5.37	0.63		.65			
3 Fathers' hostile parenting	5.21	4.50	0.53			.52		
4 Fathers' autonomous parenting	20.86	5.78	0.68				.73	
5 Fathers' desultory parenting	1.38	4.76	0.56					.57
A Mothers' positive parenting	13.47	6.56	0.77					
B Mothers' directive parenting	10.26	5.30	0.62					
C Mothers' hostile parenting	5.84	4.55	0.53					
D Mothers' autonomous parenting	18.73	5.26	0.62					
E Mothers' desultory parenting	4.82	4.49	0.53					

Note. 1A, 2B, 3C, 4D, 5E represent Spearman correlation coefficients between the same style of parenting in father and mother

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There were no differences found in enjoying school between those with different roles in bullying: bullies ($M = 2.13$; $SD = 0.83$); victims ($M = 2.31$; $SD = 0.88$); defenders ($M = 2.66$; $SD = 0.99$). Victims had a significantly smaller amount of good friends in the class ($M = 3.23$; $SD = 0.91$; $t = -3.08$; $df = 37.12$; $p = .004$) compared to the non-victim group ($M = 3.84$; $SD = 0.96$; for bullies: $M = 3.80$, $SD = 1.01$; and for defenders: $M = 4.12$; $SD = 0.90$). Victims had a significantly higher fear of bullying ($M = 2.69$; $SD = 1.19$; $t = 5.33$; $df = 28.59$; $p < .001$) than the non-victim group ($M = 1.40$; $SD = 0.70$; for bullies: $M = 1.47$, $SD = 0.83$; and for defenders: $M = 1.49$; $SD = 0.84$).

Regression analyses

The following tables show the results of the logistic regressions using different roles in bullying as the criterion and family atmosphere (Table 3) and parenting styles (Table 4) as the predictors. It was found that the families of bullies are characterized by less cohesion and organization as well as by more conflict. From the point of view of parenting styles, it was found that fathers' desultory parenting was characteristic for bullies. The families of victims were found to have less cohesion and more control. Victims tend to have a less positive father and more positive mother. Being a victim was also predicted by having fewer good friends in the class. The families of defenders were characterized by higher expressiveness and organization as well as by lower levels of conflict. Defenders are also predicted by having more good friends in the class. Defenders have more positive and fewer directive fathers and are also predicted by less autonomous parenting of mothers, and by fathers' hostile parenting. The differences in significant predictors are shown in the supplementary materials (see figures for differences in predictors).

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Table 3

Logistic regression results using different roles in bullying as the criterion and family atmosphere, number of friends and enjoying school as predictors

Predictor	β	SE β	OR[95% CI]	z	Fit
<u>Bullies (as an outcome)</u>					
(Intercept)	4.62***				
Cohesion	1.81***	0.52	6.13[2.21,17.03]	3.48	
Expressivity	0.50	0.45	1.64[0.68, 3.99]	1.10	
Conflict	-1.90**	0.65	0.15[0.04, 0.54]	-2.91	
Organization	0.24	0.40	1.27[0.58, 2.76]	0.59	
Control	1.97**	0.71	7.19[1.79, 28.86]	2.78	
Number of friends	0.22	0.38	1.24[0.59, 2.61]	0.58	
Enjoying school	0.20	0.37	1.22[0.58, 2.53]	0.52	
					Nagelkerke R ² = 0.728
<u>Victims (as an outcome)</u>					
(Intercept)	2.19***				
Cohesion	1.10***	0.27	3.00[1.76, 5.10]	4.04	
Expressivity	0.02	0.26	1.03[0.62, 1.69]	0.10	
Conflict	-0.12	0.22	0.89[0.58, 1.37]	-0.53	
Organization	-0.15	0.23	0.86[0.55, 1.34]	-0.65	
Control	-0.69**	0.25	0.50[0.31, 0.82]	-2.78	
Number of friends	0.66**	0.25	1.93[1.17, 3.18]	2.59	
Enjoying school	-0.02	0.25	0.98[0.60, 1.61]	-0.08	
					Nagelkerke R ² = 0.345
<u>Defenders (as an outcome)</u>					
(Intercept)	1.59***				
Cohesion	0.01	0.23	1.01[0.64, 1.59]	0.05	
Expressivity	-1.01***	0.26	0.37[0.22, 0.61]	-3.92	
Conflict	0.83***	0.25	2.29[1.40, 3.74]	3.29	
Organization	-1.06***	0.26	0.35[0.21, 0.57]	-4.17	
Control	0.15	0.25	1.16[0.71, 1.88]	0.59	
Number of friends	-0.86**	0.27	0.42[0.25, 0.72]	-3.20	
Enjoying school	-0.11	0.23	0.90[0.58, 1.39]	-0.50	
					Nagelkerke R ² = 0.505

Note. ** indicates $p < .01$. *** indicates $p < .001$; In reference group, Bullies, Victims, and Defenders were coded as 0, others were coded as 1

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Table 4

Logistic regression results using different roles in bullying as the criterion and family atmosphere, number of friends and enjoying school as predictors

Predictor	β	SE β	OR[95% CI]	z	Fit
<u>Bullies (as an outcome)</u>					
(Intercept)	6.17***				
Positive father	0.40	0.98	1.50[0.22,10.21]	0.41	
Directive father	-0.58	1.07	0.56[0.07, 4.58]	-0.54	
Hostile father	-0.37	1.03	0.69[0.09, 5.19]	-0.36	
Autonomous father	0.20	0.94	1.22[0.19, 7.68]	0.21	
Desultory father	-3.53*	1.64	0.03[0.001, 0.72]	-2.16	
Positive mother	0.51	0.84	1.66[0.32, 8.60]	0.60	
Directive mother	-0.14	0.96	0.87[0.13, 5.75]	-0.14	
Hostile mother	0.75	0.89	2.12[0.37, 12.14]	0.84	
Autonomous mother	0.50	0.93	1.64[0.27, 10.16]	0.53	
Desultory mother	-0.03	0.97	0.97[0.15, 6.46]	-0.03	
Number of friends	-0.17	0.83	0.85[0.17, 4.33]	-0.20	
Enjoying school	0.07	0.82	1.07[0.22, 5.33]	0.09	
					Nagelkerke R ² = 0.986
<u>Victims (as an outcome)</u>					
(Intercept)	4.19***				
Positive father	4.25***	1.23	70.36[6.31, 784.4]	3.46	
Directive father	-0.59	0.73	0.55[0.13, 2.30]	-0.82	
Hostile father	0.01	0.74	1.01[0.24, 4.29]	0.02	
Autonomous father	1.45	1.10	4.26[0.49, 36.79]	1.32	
Desultory father	0.39	0.77	1.47[0.33, 6.60]	0.50	
Positive mother	-4.06***	1.03	0.02[0.002, 0.13]	-3.95	
Directive mother	-0.02	0.71	0.98[0.24, 3.96]	-0.03	
Hostile mother	0.21	0.65	1.23[0.34, 4.39]	0.32	
Autonomous mother	0.92	0.72	2.50[0.61, 10.32]	1.27	
Desultory mother	0.46	0.70	1.59[0.41, 6.20]	0.67	
Number of friends	-0.10	0.51	0.90[0.33, 2.44]	-0.20	
Enjoying school	0.21	0.52	1.23[0.45, 3.37]	0.40	
					Nagelkerke R ² = 0.905
<u>Defenders (as an outcome)</u>					
(Intercept)	3.37***	1.24	0.006[0.001,0.07]	-4.10	
Positive father	-5.11***	1.02	41.78[5.68, 307.23]	3.67	
Directive father	3.73***	0.93	0.15[0.24, 0.91]	-2.07	
Hostile father	-1.92*	0.90	2.52[0.43, 14.61]	1.03	
Autonomous father	0.92	0.83	1.08[0.21, 5.45]	0.09	
Desultory father	0.08	0.70	0.46[0.12, 1.81]	-1.12	
Positive mother	-0.78	0.60	1.94[0.60, 6.24]	1.11	
Directive mother	0.66	0.65	1.31[0.37, 4.66]	0.41	
Hostile mother	0.27	0.83	7.56[1.49, 38.42]	2.44	
Autonomous mother	2.02*	0.71	0.30[0.07, 1.21]	-1.70	
Desultory mother	-1.21	0.41	0.66[0.29, 1.48]	-1.01	
Number of friends	-0.42	0.40	0.79[0.36, 1.73]	-0.60	
Enjoying school	-0.24	1.24	0.006[0.001,0.07]	-4.10	
					Nagelkerke R ² = 0.941

Note. * indicates $p < .05$; ** indicates $p < .01$. *** indicates $p < .001$; In reference group, Bullies, Victims, and Defenders were coded as 0, others were coded as 1

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Discussion

In the present study, as many as 52.9% of the pupils had been involved in bullying. 9.7% of them had been the bullies, 16.7% the victims and 26.5% were defenders. It was found that bullies are from families characterized by less family cohesion and control, with more conflicts and with fathers' desultory parenting. The family of victims is characterized by less family cohesion, higher family control, fewer fathers' positive parenting and with slightly higher mothers' positive parenting. Victims also have fewer good friends in the class. A characteristic family for defenders is one with higher family expressivity and organization, fewer conflicts, more fathers' positive parenting and fewer fathers' directive parenting as well as fewer mothers' autonomous parenting. Defenders are also predicted by fathers' hostile parenting and also have more good friends in the class.

Family atmosphere and parenting styles in bullies

According to the current findings, the families of bullies are characterized by less cohesion, higher conflict rates and less control. Similar findings have been reported by Cook et al. (2010). Parental violence and blaming are more frequent in families of bullies and bullies perceived parents more negatively (Braithwaite, 1989; Farrington, 1993). Neglect, abuse and maladaptive behavior from parents can contribute to the more negative family atmosphere of bullies (Lereya et al., 2013). Olweus (1995) has claimed that parents did not give their children enough love and attention, took a more negative attitude, did not set firm boundaries in their behavior and tolerated violent and bullying behavior. According to Espelage et al. (2000), aggressors perceive their families as less cohesive with a low level of parental control and tendency to use physical punishment. Higher family cohesion acts as a protective factor of aggressive behavior (Duggings et al., 2016). In the family of bullies, an absence of affection and warmth is typical (Bowes et al., 2009). From the point of view of parenting style, it was found that bullies experienced higher desultory parenting by fathers. Desultory

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parenting has a significant negative impact as it is a manifestation of indifference, even covert hostility in relation to the adolescent. It is characterized by a confusing parenting environment, instability in defined rules as well as by a higher impact of mood on decision-making. In desultory parenting, ambivalence in behavior is typical. Parents use punishments and praise and their wishes and expectations are often confusing and unclear. Decisions are made on the basis of parental advantage. Previous research (Říčan, 1998; Baldry & Farrington, 1998) has confirmed the lack of interest and insufficient support from fathers of the aggressors. For bullies, it can be hard to identify with a desultory father as a clear male identification figure. The absence or lack of a male identification figure as part of their development can be problematic. Children who labeled their fathers as strict, controlling or had a lack of presence in their lives were more involved in bullying behavior (Kawabata et al., 2011). On the other hand, children who perceived a positive parental style involving emotional sensitivity and warmth were less involved in bullying.

Family atmosphere and parenting styles in victims

It was found that families of victims are characterized by less cohesion and higher control. In the context of Eastern Europe, Říčan et al. (1993) also found higher control and hostility in the families of victims. Gladstone et al. (2006) have stated that victims more often suffer from a disease or physical disabilities which is linked to higher parental control. In the context of parenting, it was found that victims perceived a lower level of fathers' positive parenting and a slightly higher level of mothers' positive parenting. The lack of positive interest, encouragement, listening and understanding of the problems and difficulties that the child experiences from the father are related to victimization. The fathers of these children are more distant, cold and it is difficult for these children to identify with them (Smith et al., 1998).

Absence and passivity in parenting from the father are risk factors for victimization

(Garmezy, 1991; Fosse & Holen, 2002). In addition, Flouri and Bechanan (2002) have stated

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that victims do not have a friendly and close relationship with their fathers. The victims also tend to experience greater indifference and abuse from their fathers. They experience physical or sexual abuse to a greater extent in childhood, and have a poorer relationship with their parents in general (Gladstone et al., 2006). On the other hand, higher positive parenting (e.g., Swearer et al., 2012) and a supportive family (Shaheen et al., 2019) are protective factors of bullying. The current study found that victims had a higher level of positive parenting from their mothers. This finding combined with a higher level of control in the family can indicate the higher protectivity of mothers. However, having an overprotective mother is a risk factor for being bullied because it can limit the ability to self-defend and effectively cope with victimization attacks (Georgio, 2008). In addition, Dake et al. (2003) have found that intensive close relationships and high levels of parental involvement are connected to a higher level of victimization.

One additional finding about victims in the study, not related to family, is that they have fewer good friends in the class. It is a relatively well-known fact that victims are avoided and isolated by their peers, have problems with solving social problems (Cook et. al, 2010), experience a higher level of loneliness, conflicts, and betrayal of friends (Rigby, 2003; Atik & Güneri, 2013). This could be problematic in the broader context, e.g., Stillman et al. (2009) found that social exclusion and loneliness predict experiencing life as less meaningful. Victims have lower status and a lower level of social prestige (Sijtsema et al., 2009), perceive themselves as less clever, have problems cooperating with others and are less able to form a friendship (Perren & Alsaker, 2006).

Family atmosphere and parenting styles in defenders

In defenders, it was found that their family typically has a higher level of expressivity and organization, lower level of conflicts, a higher level of fathers' positive parenting, lower level

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of fathers' directive parenting, and lower level of mothers' autonomous parenting. The results of the regression model indicate that there is also an effect of fathers' hostile parenting on the defender. However, this effect was found to be in the opposite direction to that indicated by simple logistic regression or by looking at the differences in fathers' hostile parenting between defenders and the others (see supplementary materials). It is possible that these inconsistencies in the identified effect of fathers' hostile parenting could be due to the suppression effect in regression (Paulhus et al., 2004) or Simpson's paradox (Kievit et al., 2013) both of which can just leave this relationship as opposite direction. As far as it is known, the defenders have the least-known role in bullying. There have only been a few studies focused on the specific characteristics of defenders and these studies have mostly been focused on personality characteristics such as empathy or attachment style, rather than factors related to family (Barchia & Bussey, 2011; Nickerson et al., 2008). Mulvey et al. (2018) found that positive family management is characteristic of the family of defenders e.g., defined by clear rules, calm behavior and open communication between child and parents. The current study also found that the defenders' family is typically well organized, has clear rules, open to sharing feelings and has greater harmony (fewer conflicts). Similarly, Mazzone and Camodeca (2019) found that less functioning families decreased defending behavior and increased aggressive behavior in bullying. Regarding parenting styles in defenders there has been no systematic research. According to the present study, it seems that fathers' parenting is more important. Fathers in defenders are more positive, less directive and less hostile. It means there is less enforcement of parental orders, control of friends, and punishment. Fathers are more supportive and are a good role model for their children. Defenders also refer to less autonomous parenting of mothers. Given the higher level of expressivity and organization, as well as less conflict in the family, lower autonomous parenting could indicate that mothers of defenders communicate to them what is right and what is wrong more often than parents of

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bullies and victims. Fewer autonomous parenting could be helpful to learn how to behave in conflict situations.

Defenders also have more good friends in the class. In a study focused on dyadic relationships between victims and defenders, it was found that more than 70% of victims have one or more defenders (Sainio et al., 2011). Victims and other students perceive defenders as popular with high social status among their peers. Those victims who have a defender have a lower level of anxiety than victims without defenders (Sainio et al., 2011). Given that defenders have the potential to stop bullying, it seems that knowing more about defenders seems to be an important topic for a research.

Limitations and implications of study

There are also several limitations in the present findings which must be considered in the case of potential generalizing the research. Firstly, there were 155 respondents in the study and, when considering the division into groups based on the individual roles in bullying, the representativeness of the groups is thus limited. Secondly, as the study design was cross-sectional, it is not possible to provide adequate comments on the potential causal validity of the identified relationships. Thirdly, the individual forms of bullying were not distinguished in the study; bullying was understood as a complex phenomenon and included direct as well as indirect forms of bullying behavior. Despite the limitations, the present study provides interesting and thought-provoking research findings regarding the different roles in bullying specifically focused on family atmosphere and parenting styles of mothers and fathers. Knowledge about the factors related to family atmosphere and parenting styles can be very useful for school psychologists in preparing bullying prevention and intervention programs. At the same time, the knowledge about parental factors can be useful for educational process to the formation of responsibility of adolescents and then can lead to minimize the risks of inclination to some forms of extremism (Martinkovič, 2017). Lester et al. (2017) found that including family in preventive and interventive programs focused on bullying increased child-parent communication about bullying. These authors have also stated that it is important to work on these programs with both mothers and fathers. The social support as well as professional help should be adjusted to the subjective needs of each affected individual

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(Vindišová, 2012). According to the present study, the parenting styles of fathers and mothers have different importance in different roles in bullying. Family climate and parenting styles (of fathers and mothers separately) are important factors in bullying for both the bullies and victims (e.g., Cerezo et al., 2018). However, it seems that there is a research gap in exploring which factors related to family are important for defenders. They play a very important role in bullying from the point of view of bullying intervention and prevention. Thus, further research should be focused on examining the effect of fathers' and mothers' parenting on bullying separately, as well as exploring the family of defenders.

Conflict of Interest

Authors declare no conflict of interest.

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