

Peer Roles in Bullying: Relations to Maternal Support, Empathic Concern, and Personal
Distress

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Abstract

Bullying is a risk factor for the current and later lives of adolescents. Although it is known that the responses of peers to bullying can both increase and decrease the frequency of bullying behavior, little knowledge exists about the factors related to these peer roles. This quantitative study aimed to examine whether two dimensions of empathy, empathic concern and personal distress, mediated the relation between adolescents' perceived maternal support and their role(s) of assistant of the bully, guilty bystander, and defender of the victim. Dutch middle adolescents (N = 92, 64 girls) completed self report scales of the translated Interpersonal Reactivity Index, Network of Relationships Inventory, and adjusted Participant Role Questionnaire. Several simple and multiple regression analyses revealed no mediation effects. Empathic concern was positively related to the defender role, however. Moreover, personal distress was positively related to the guilty bystander role. Finally, girls had higher levels of empathic concern and personal distress, and boys more often reported to be the assistant in a bully situation. Whereas empathic concern seemed to be relevant to the defender role, personal distress appeared to be important for predicting guilty bystander behavior. Bully interventions aimed at increasing defender behavior of peers should focus on increasing adolescents' empathic concern and decreasing their personal distress.

Keywords: bullying, peer roles, maternal support, empathy, adolescence

Peer Roles in Bullying: Relations to Maternal Support, Empathic Concern, and Personal Distress

Bullying is a risk factor for the current and later lives of adolescents (Bender & Lösel, 2011; Brunstein-Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007; Ivarsson, Broberg, Arvidsson, & Gillberg, 2005; Nansel et al., 2001). Bullies show an increased risk of delinquency, violence, and aggression (Bender & Lösel, 2011; Ivarsson et al., 2005), and victims show more difficulties in social and emotional adjustment (Nansel et al., 2001). Moreover, both bullies and victims seem to have an increased risk for depression, ideation of suicide, and suicide attempts (Brunstein-Klomek et al., 2007). Peers are present in about 88 percent of the bullying situations (Hawkins, Pepler, & Craig, 2001). The responses of peers to bullying, such as ignoring or rejecting it, can either increase or decrease the frequency of bully behavior (Arnett, 2010; Salmivalli, Voeten, & Poskiparta, 2011). This makes peers a possible target group for interventions against bullying (Salmivalli et al., 2011). Studies examining factors related to the involvement in bullying reveal that empathy is linked to antisocial behavior (De Kemp, Overbeek, De Wied, Engels, & Scholte, 2007; Schaffer, Clark, & Jeglic, 2008) and bully behavior, in particular (Jolliffe & Farrington, 2006; Stavrinides, Georgiou, & Theofanous, 2010). Empathy dimensions such as empathic concern and personal distress seem to be most relevant in the context of bullying, because both involve affective reactions to another's negative experience (Davis, 1980). Moreover, adolescence is marked as a highly important developmental period for empathy (Chase-Lansdale, Wakschlag, & Brooks-Gunn, 1995; Eisenberg & Fabes, 1990; Fabes, Carlo, Kupanoff, & Laible, 1999; Soenens, Duriez, Vansteenkiste, & Goossens, 2007). In addition, parental support -- especially maternal support -- is an important predictor of adolescent empathy (Davidov & Grusec, 2006; Kanat-Maymom & Assor, 2010; Laible & Carlo, 2004; Miklikowska, Duriez, & Soenens, 2011; Schaffer et al., 2008; Soenens et al., 2007), and adolescents who experience lower parental support are more likely to be involved in bullying (Haynie et al., 2001; Wang, Iannotti, & Nansel, 2009). Although research has revealed significant links between peer roles and respectively empathic concern, personal distress, and maternal support, these variables have not been conjunctively investigated in prior studies. Moreover, most research has focused on the roles of bully and victim. Additional peer roles involving reactions to existing bullying situations, such as assistant of the bully, guilty bystander, and defender of the victim, have not yet been extensively studied.

This research examines four specific issues. The first aim is to gain insight in adolescents' empathic concern and personal distress, by studying their relation with maternal support. The three additional aims focus on the potential mediating roles of empathic concern and personal distress in the link between maternal support and the three different peer roles. The main aim of the present study is to examine whether

empathic concern and personal distress mediate a relation between adolescents' perceived maternal support and their role(s) of assistant of the bully, guilty bystander, and defender of the victim.

Maternal support, empathic concern and personal distress

The support adolescents receive from their mother appears to be related to their empathic capacities (Davidov & Grusec, 2006; Kanat-Maymon & Assor, 2010; Miklikowska et al., 2011; Soenens et al., 2007). Soenens, Duriez, Vansteenkiste, and Goossens (2007, p. 300) define *parental support* as "both parents' capacity to attune to their childrens' needs and to serve as a secure base when a child experiences discomfort or stress, and parents' tendency to interact with their children in a warm, affectionate and involved fashion". *Empathy* is defined by Hoffman (2008, p. 440) as "an emotional state triggered by another's emotional state or situation, in which one feels what the other feels or would normally be expected to feel in this situation". Davis (1980) conceptualizes empathy along four dimensions, of which empathic concern and personal distress reflect affective responding. *Empathic concern* refers to "feelings of warmth, compassion and concern for others undergoing negative experiences". *Personal distress* includes "feelings of discomfort and anxiety when witnessing the negative experiences of others" (Davis, 1980, p. 6).

Empathic concern seems to be an empathy dimension consistently related to the support provided by mothers to their adolescents (Miklikowska et al., 2011; Van Der Mark, Van Ijendoorn, & Bakermans-Kranenburg, 2002). Mothers with high levels of responsiveness to their adolescents' distress tend to have adolescents who respond with more empathy (Kanat-Maymon & Assor, 2010). Miklikowska, Duriez, & Soenens (2011) suggest that the significant role of maternal support for adolescents' empathic concern has to do with the different gender roles that characterize fathers and mothers, with the maternal role more strongly connected to affection. Moreover, Soenens et al., (2007) suggested that the strength of this relation has its basis in attachment theory, with mothers being adolescents' most important attachment figure in life. Based on the aforementioned literature, we expected that maternal support would have a strong link with adolescents' empathic concern.

In contrast to the clear link between maternal support and empathic concern, research about maternal support and personal distress is limited and contradictory. Although children who tend to regulate their negative emotions in an adequate manner appear to experience more maternal responsiveness (Davidov & Grusec, 2006), recent research about the relation between maternal responsiveness and older adolescents' personal distress found no significant link (Kanat-Maymon & Assor, 2010). As these studies cover different age ranges, it can only be cautiously stated that if a relation is present between maternal support and personal distress, should be a negative one.

Maternal support and peer roles

While there are indications that parental support, and especially maternal support, may be related to adolescents' empathic concern and personal distress, the same seems to be true for the relation between parental support and adolescents' behavior in bullying situations (Analitis et al., 2009; Baldry & Farrington, 2005; Barboza et al., 2009; Jolliffe & Farrington, 2011; Nansel et al., 2001; Obermann, 2011; Salmivalli, Lagerspetz, Björkqvist, Österman, & Kauklainen, 1996). *Bullying* at school is defined in this study as repeated physical, verbal or psychological attacks or intimidation by more powerful individuals to weaker persons, that is intended to cause fear, distress or harm (Analitis et al., 2009; Baldry & Farrington, 2005; Barboza et al., 2009; Jolliffe & Farrington, 2011; Nansel et al., 2001). Peers can react in different ways to bullying situations. The *assistant of the bully* joins the ringleader. The *guilty bystander* does nothing to help the victim, but feels guilty about this. The *defender of the victim* is likely to offer help to the bullied person (Salmivalli et al., 1996; Obermann, 2011). These different peer roles are important for the bully frequency (Arnett, 2010; Salmivalli, Voeten, & Poskiparta, 2011).

The ways in which peers react to bullying situations appears to be linked to the parental support they receive. Adolescents who experience low levels of parental support are more often involved in bullying (Haynie et al., 2001; Wang, et al., 2009). Teenagers who are not exposed to a warm and interactive style of maternal support have been found to be more likely to assist in bullying situations (Barboza et al., 2009). On the contrary, adolescents who often experience parental support are more prone to develop skills useful for their social school life, which helps to buffer them from anti-social behavior (Baldry et al., 2005). However, this does not always result in actively intervening in bullying situations, and youngsters can instead stay passive while also feeling guilty about not acting. The coping behavior of guilty bystanders seems to dominate the way they act. They try to avoid the bullying situation, and search for cognitive and behavioral distractions (Baldry et al., 2005). Evidence for a direct link between maternal support and adolescents who do actively intervene in bullying situations is scarce, however. On the other hand, prior research has indicated a positive relation between the security of attachment to mothers and the defender role in bullying situations (Nickerson, Mele, & Princiotta, 2008). Therefore, we expected that higher maternal support would be positively linked to both the role of defender and guilty bystander, whereas the assistant role would be negatively related to maternal support.

Peer roles and empathic concern

In addition to maternal support, research indicates that empathy, and especially empathic concern, plays an important role in involvement in bullying (Jolliffe & Farrington, 2006; Stavrinides et al., 2010). The relation between empathy and antisocial behavior becomes especially noticeable during adolescence (Nickerson et al., 2008). The

likelihood that adolescents are involved in bullying situations increases when their ability to understand the feelings of others is low, due to the fact that they do not foresee the impact of their behavior on the feelings of others (Munoz, Qualter, & Padgett, 2011; De Kemp et al., 2007). At the same time, bullying adolescents have shown a lower degree of being in touch with and feeling what others feel, as compared to those who do not bully (Jolliffe & Farrington, 2011). Therefore, the relation between empathic concern and bullying may be bidirectional; lower levels of empathic concern can increase the likelihood of assistance in bullying, but assisting in bullying may also have a negative impact on the development of empathic concern (Stavrinides et al., 2010). Moreover, adolescent boys assist more often in bullying situations than girls (Stavridines et al., 2010; Spinrad et al., 1999). The fact that boys assist more frequently may be partially explained by their lower levels of empathic concern (Stavrinides et al., 2010), as the relation between bullying and emphatic concern is the same for boys and girls (Stavrinides et al., 2010). Based on the aforementioned findings, we expected that empathic concern would be negatively related to assisting in bullying.

Lower empathic concern appears to be related to assisting in bullying, whereas higher empathic concern seems to be related to both the role of the guilty bystander and defender. Guilty bystanders are similar to defenders in understanding others' thoughts, emotions, and intentions (Gini, Albiero, Benelli, & Altoè, 2008). However, they do not use these abilities to act pro-socially and stand up for the victim. Guilty bystanders often feel insecure in their social functioning, which prohibits them from actively defending bully victims. They less often take responsibility or act supportively, either because they do not know how to do so, are afraid of handling the situation badly, or fear becoming the target of bullies, themselves (Gini et al., 2008; Fox, Gater, & Johnson, 2010). According to Thornberg (2007), guilty bystanders may also expect others to take action or think it is unnecessary to intervene. Based on these findings, we expected that empathic concern would be positively related to the role of guilty bystander.

Although both guilty bystanders and defenders seem to have high levels of empathic concern, only defenders are able to use their capacities in order to act. The results of recent cross-sectional and longitudinal research indicate that there is a positive association between adolescents' defender role in bullying situations and their empathic concern (Barchia & Bussey, 2011; Caravita, DiBlasio, & Salmivalli, 2009; Gini, Albiero, Benelli, & Altoè, 2007; Nickerson et al., 2008). Furthermore, some literature indicates a gender difference concerning defender behavior. Whereas girls' higher level of empathy seems to predict their defending behavior (Barchia & Bussey, 2011), boys with high levels of empathy and a high social group status appear to be more prone to defend bully victims (Caravita et al., 2009). Following the literature, we expected that empathic concern would positively related to the defender role.

Peer roles and personal distress

In comparison to empathic concern, less research has focused on personal distress as a predictor of adolescents' peer roles in bullying situations. Research indicates that personal distress is not related to pro-social behavior (Barr & Higgings-D'Alessandro, 2007; Hawk et al., in press). Moreover, it can be distressing for bystanders to witness bullying (Frey, Edstrom, Snell, & Hirschstein, 2009). When individuals' personal distress is stronger than their empathic concern, they may withdraw in the face of situations in which other persons suffer (Bierhoff & Rohmann, 2004). Although no research has specifically studied the relation between personal distress and the roles of assistant and defender, based on the aforementioned findings it is unlikely that assistants and defenders have high levels personal distress, as they both actively intervene in bullying situations instead of avoiding them. Therefore, we expected that personal distress would be positively related to the guilty bystander role, and negatively to the assistant and defender roles.

Present study

The aim of the present study was to examine whether empathic concern and personal distress mediate a relation between adolescents' perceived maternal support and their role(s) of assistant of the bully, guilty bystander, and defender of the victim. For each of our main research aims, we formulated related hypotheses based on the aforementioned literature. The first aim was to gain insight into the potential relation between maternal support and adolescents' empathic concern and personal distress. Positive links between perceived maternal support and adolescents' empathic concern were expected. A negative link between perceived maternal support and adolescents' personal distress was cautiously predicted.

The second aim was to examine the mediating roles of adolescents' empathic concern and personal distress in the possible link between perceived maternal support and adolescents' role of assistant of the bully. A negative relation between maternal support and the assistant role was expected. Moreover, a negative relation was expected between empathic concern and the role of assistant. Therefore, we predicted that empathic concern would mediate a negative relation between maternal support and adolescents' assistance in bullying. More cautiously, a negative link was expected between personal distress and assistance in bullying. Therefore, we cautiously predicted that personal distress would mediate a negative link between maternal support and assistance in bullying.

The third aim was to gain insight in the mediating roles of adolescents' empathic concern and personal distress in a possible link between perceived maternal support and adolescents' role of guilty bystander in bullying situations. The literature indicates a contradiction about the guilty bystander role. The role of guilty bystander is typically

associated with high levels of maternal support, as well as with high levels of both empathic concern and personal distress. However, maternal support in itself is often related to high levels of empathic concern, but low levels of personal distress. Receiving higher levels of maternal support was therefore expected to lead to lower levels of personal distress, instead of the high level of personal distress characteristic for the guilty bystander role. However, because of the positive relation between maternal support and empathic concern, and empathic concern and the guilty bystander role, we expected to find a positive link between maternal support and the role of guilty bystander. In addition, a positive link was expected between empathic concern and the role of guilty bystander. Therefore, it was predicted that a positive link between maternal support and the role of guilty bystander would be mediated by empathic concern. A positive link between personal distress and guilty bystander role was also expected. Therefore, we predicted that a positive link between maternal support and the role of guilty bystander would be mediated by personal distress.

The last aim was to examine the mediating role of adolescents' empathic concern and personal distress in a link between perceived maternal support and adolescents' role of defender of bully victims. A positive link was expected between maternal support and the defender role. Moreover, a positive link was expected between empathic concern and the defender role. Therefore, we predicted that empathic concern would mediate a positive link between maternal support and the defender role. A negative link was cautiously expected between personal distress and the defender role. Therefore, it was predicted that a positive link between maternal support and the defender role would be mediated by personal distress.

Method

Participants

The sample consisted of 92 Dutch pupils (64 girls). The modal age of the adolescents was 16 years (1.1% at 14 years, 34.8% at 15 years, 48.9% at 16 years, and 15.2% at 17 years). The mean age is 15.78 ($SD = .71$). Participants came from three different high schools and had different education levels (51.1% VWO, 25.0% HAVO, and 23.9% VMBO-T). There was no great diversity in ethnic background of the adolescents (94.6% native Dutch, 5.4% non-native Dutch; e.g. Turkish, Surinamese/Dutch Antillean, and mixed background) and family situation (83.7% living with both parents, 6.5% living with only mother, 2.2% living with only father, and 7.6% living in another family situation).

Procedure

The three high schools were located in Sassenheim, Nijmegen, and Bemmelen, in the Netherlands. The researchers approached personal contacts working at the schools

approximately three weeks before the planned data collection and obtained permission to conduct the research. Students and their parents were informed beforehand with a letter explaining the research purposes and procedure, and offering the option to refuse participation. Two students and/or parents used this option, and one more did not participate because of being ill at the moment of data collection. Oral and written instructions were given at the beginning of the data collection, in which the voluntary and anonymous character of the research was stressed and some concepts used in the questionnaires were clarified. The pupils had 20 minutes maximum to fill in the questionnaires.

Measurements

Empathy. The adolescents reported the extent to which they felt empathic or distressed by others' emotions or situations, using two scales from the Dutch version (Hawk et al., in press) of the four-scale Interpersonal Reactivity Index (Davis, 1980). The scale Empathic Concern consists of seven items. An example item is, "I often have tender, concerned feelings for people less fortunate than me". Items were scored on a 5-point Likert scale from 1 (*totally not typical for me*) to 5 (*totally typical for me*). The Cronbach's reliability of this scale was $\alpha = .79$. The scale Personal Distress consisted of seven items, as well. An example item is, "I sometimes feel helpless when I am in the middle of a very emotional situation". Items were scored on the same 5-point Likert scale. The Cronbach's reliability of this scale was $\alpha = .75$. The structural and predictive validity of both scales has been tested by Fernández, Dufey, and Kramp (2011) and Peloquin and Lafontaine (2010). Moreover, Peloquin and Lafontaine (2010) examined the convergent and discriminant validity. De Corte et al. (2007) have further demonstrated construct validity, and Hawk et al. (in press) has demonstrated both a comparable factor structure and convergent validity in Dutch adolescent samples.

Maternal support. Participants completed the Dutch-translated Support subscale of the Network of Relationships Inventory (Furman & Buhrmester, 2009) to measure the extent to which they felt supported by their mother. The inventory consisted of 12 items. An example item is, "To what extent does your mother show that you can do many things right?". Items were scored on a 5-point Likert scale from 1 (*little or not*) to 5 (*most possible*). The Cronbach's reliability of this inventory was $\alpha = .91$. Its validity has been extensively discussed by Furman and Buhrmester (2009).

Peer roles. The pupils reported the extent to which they behave in an attacking, withdrawing, or protective manner when someone else is being bullied, using three scales of the Participant Role Questionnaire (Salmivalli et al., 1996), translated into Dutch by the researchers of the present study. The Assistant scale consists of four items. An example item is, "...join the bullying, when someone else has started it". Items were scored on a 5-point Likert scale from 1 (*totally not typical for me*) to 5 (*totally typical for*

me). The Cronbach's reliability of this scale was low ($\alpha = .56$). The Guilty Bystander scale consists of four items, as well. Using the Outsider scale of Salmivalli, Lagerspetz, Björkqvist, Österman, & Kauklainen (1996), the four questions were transformed into a Guilty Bystander scale by the researchers of this study. An example item is, "I think someone has to stand up for the victim, but I withdraw". Items were scored on the same 5-point Likert scale. The Cronbach's reliability of this scale was $\alpha = .81$. A factor analysis was conducted to examine whether the four sub questions represented one factor, with factor loadings of .47, .61, .69, and .77, this appeared to be the case. The Defender scale consists of 20 items. An example item is, "...Tells the others to stop bullying". Items were scored on the same 5-point Likert scale. The Cronbach's reliability of this scale was $\alpha = .86$. The validity of the Assistant and Defender scales have been discussed by the authors of the questionnaire (Salmivalli et al., 1996).

Strategy of analysis

Several steps were taken in the analysis process. First, the raw data were converted into means. Second, descriptive statistics were calculated, providing the mean, standard deviation, minimum and maximum of the variables age, maternal support, empathic concern, personal distress, assistant role, guilty bystander role and defender role. Third, the scores were transformed into Z-scores, after which Pearson correlations were calculated. Finally, several simple and multiple regressions were run to examine the stated hypotheses.

The first simple regression analysis examined the hypothesis that maternal support would be positively related to empathic concern. Empathic concern was entered as the dependent variable. Age and gender were entered as the independent variables in step one. In step two, maternal support was entered. In step three, the two-way interactions terms age-maternal support, gender-maternal support, and age-gender were entered. In step four, the three-way interaction term age-gender-maternal support was entered. The second simple regression analysis examined the cautious prediction that maternal support would negatively related to personal distress. Personal distress was entered as the dependent variable, after which the same steps were taken as in the first simple regression analysis.

Mediation by empathic concern or personal distress would be supported if the results of the hierarchical regressions would initially reveal significant relations between maternal support and the peer roles, and the strengths of these effects would decrease significantly after entering empathic concern or personal distress. The first hierarchical multiple regression analysis was conducted to examine the hypotheses that empathic concern and personal distress would mediate a negative relation between maternal support and the assistant role. The assistant role was entered as the dependent variable. Age and gender were entered as the independent variables in step one. In step two,

maternal support was entered. In step three, the mediators empathic concern and personal distress were entered. In step four, the two-way interaction terms age-maternal support, age-empathic concern, age-personal distress, gender-maternal support, gender-empathic concern, gender-personal distress and age-gender were entered. In step five, the three-way interaction terms age-gender-maternal support, age-gender-empathic concern, and age-gender-personal distress were entered. The second hierarchical multiple regression analysis was conducted to examine the hypotheses that empathic concern and personal distress would mediate a positive relation between maternal support and the guilty bystander role. The guilty bystander role was entered as the dependent variable, after which the same steps were taken as in the first hierarchical regression analysis. The last hierarchical multiple regression analysis was conducted to examine the hypotheses that empathic concern and personal distress would mediate a positive link between maternal support and the defender role. The defender role was entered as the dependent variable, after which the same steps were taken as in the two previous hierarchical regression analyses.

Results

Descriptives

The means, standard deviations, and ranges of scores are shown in Table 1. After this, Pearson correlations were calculated between the continuous variables age, maternal support, empathic concern, personal distress, assistant role, guilty bystander role and defender role (see Table 2). The results revealed significant, positive correlations between empathic concern and personal distress ($r = .43, p < .01$). This means that higher empathic concern was related to higher personal distress. Significant, negative correlations were found between empathic concern and the assistant role ($r = -.24, p < .05$). This implies that higher empathic concern was related to lower assistant behavior. A positive correlation was found between personal distress and the guilty bystander role ($r = .28, p < .01$). This indicates that an increase in personal distress was related to an increase of guilty bystander behavior. Finally, a significant, positive correlation was found between empathic concern and the defender role ($r = .39, p < .01$). This means that an increase in empathic concern was related to more defender behavior.

Link between maternal support and empathic concern

A simple regression analysis was conducted to examine the hypothesis that maternal support would be positively related to empathic concern (see Table 3). Step one, in which age and gender were entered, was significant ($R^2 = .32, p < .001$). Within the step, gender showed a significant, positive relation with empathic concern ($\beta = .58, p < .001$), suggesting that girls experienced more empathic concern. Step two, in which

maternal support was entered, was not significant ($\Delta R^2 = .01, p = .27$). Step three, in which the two-way interaction terms age-maternal support, gender-maternal support, and age-gender were entered, was also not significant ($\Delta R^2 = .00, p = .94$). Finally, step four, in which the three-way interaction term age-gender-maternal support was entered, was also not significant ($\Delta R^2 = .00, p = .61$).

The regression showed that step one, in which the independent variables age and gender were entered, had the best fit ($F(2,89) = 20.98, p < .001$). Adding other variables did not result in a better fit of the model. Therefore, step one was the final model on which the interpretations rest. The results did not confirm the hypothesis of a positive relation between maternal support and empathic concern.

Link between maternal support and personal distress

A simple regression analysis was conducted to examine the hypothesis that maternal support would be negatively related to personal distress (see Table 4). Step one, in which age and gender were entered, was significant ($R^2 = .13, p = .00$). Within the step, gender showed a significant, positive relation with personal distress ($\beta = .34, p = .00$), suggesting that girls experienced more personal distress than boys. Step two, in which maternal support was entered, was not significant ($\Delta R^2 = .02, p = .12$). Step three, in which the two-way interaction terms age-maternal support, gender-maternal support, and age-gender were entered, was also not significant ($\Delta R^2 = .00, p = .96$). Finally, step four, in which the three-way interaction term age-gender-maternal support was entered, was also not significant ($\Delta R^2 = .00, p = .76$).

The regression showed that step one, including age and gender, had the best fit ($F(2,89) = 6.61, p = .00$). Adding other variables did not result in a better fit of the model. Therefore, step one was the final model on which the interpretations rest. The results did not confirm the hypothesis of a negative relation between maternal support and personal distress.

Empathy mediation of the relation between maternal support and assistant role

A hierarchical multiple regression analysis was conducted to examine the hypotheses that empathic concern and personal distress would mediate the negative relation between maternal support and the assistant role (see Table 5). Step one, in which age and gender were entered, was significant ($R^2 = .28, p < .001$). Within this step, gender showed a significant, negative relation with the assistant role ($\beta = -.51, p < .001$), suggesting that boys were more likely to act as assistant of the bully. Step two, in which maternal support was entered, was not significant ($\Delta R^2 = .01, p = .28$). Step three, in which the mediators empathic concern and personal distress were entered, was also not significant ($\Delta R^2 = .01, p = .45$). Step four, in which the two-way interaction terms involving age or gender were entered, was also not significant ($\Delta R^2 = .06, p =$

.37). Step five, in which the three-way interaction terms involving age and gender were entered, was not also significant ($\Delta R^2 = .04, p = .23$).

The regression showed that step one, including age and gender, had the best fit ($F(2,89)=16.92, p <.001$). Adding other variables did not result in a better fit of the model. Therefore, step one was the final model on which the interpretations rest. The results did not confirm the hypotheses of mediation by empathic concern or personal distress on a negative relation between maternal support and the assistant role.

Mediation on relation between maternal support and guilty bystander role

A hierarchical multiple regression analysis was conducted to examine the hypotheses that empathic concern and personal distress would mediate a positive relation between maternal support and the guilty bystander role (see Table 6). Step one, including age and gender, was not significant ($R^2 = .02, p = .43$). Step two, in which maternal support was entered, was also not significant ($\Delta R^2 = .03, p = .11$). Step three, in which the mediators empathic concern and personal distress were entered, was significant ($\Delta R^2 = .08, p = .02$). Within this step, personal distress showed a significant, positive relation with the guilty bystander role ($\beta = .32, p = .01$). This means that adolescents with higher personal distress were more likely to act as guilty bystander in bullying situations. Empathic concern was not significant. Step four, in which the two-way interaction terms involving age or gender were entered, was not significant ($\Delta R^2 = .10, p = .18$). Step five, in which the three-way interaction terms involving age and gender were entered was also not significant ($\Delta R^2 = .05, p = .20$).

The regression showed that step three, in which independent variables age, gender, maternal support, empathic concern, and personal distress were entered, had the best fit ($F(2,86) = 4.10, p = .02$). Adding other variables did not result in a better fit of the model. Therefore, step three was the final model on which the interpretations rest. The results partially confirmed the hypotheses. A positive relation between personal distress and the guilty bystander role was found. Therefore, adolescents who experienced high levels of personal distress were more prone to act as a guilty bystander. However, the results did not confirm the hypothesis of a positive relation between empathic concern and the guilty bystander role, nor did they confirm the hypotheses that both personal distress and empathic concern would mediate a positive relation between maternal support and the guilty bystander role.

Mediation on relation between maternal support and defender role

A hierarchical multiple regression analysis was conducted to examine the hypotheses that empathic concern and personal distress would mediate a positive link between maternal support and the defender role (see Table 7). Step one, in which age and gender were entered, was not significant ($R^2 = .02, p = .45$). Step two, in which maternal support was entered, was also not significant ($\Delta R^2 = .01, p = .29$). Step three,

in which the proposed mediators empathic concern and personal distress were entered, was significant ($\Delta R^2 = .17, p < .001$).

Within the third step, empathic concern showed a significant, positive relation with the defender role ($\beta = .50, p < .001$). This suggests that adolescents with higher empathic concern were more likely to take the role as defender of the victim in bullying situations. Personal distress was not significantly related to the defender role. Step four, in which the two-way interaction terms involving age or gender were entered, was not significant ($\Delta R^2 = .03, p = .90$). Step five, in which the three-way interaction terms involving age and gender were entered, was also not significant ($\Delta R^2 = .02, p = .50$).

The regression showed that step three, which included the variables age, gender, maternal support, empathic concern, and personal distress, had the best fit ($F(2,86) = 8.86, p < .001$). Adding other variables did not result in a better fit of the model. Therefore, step three was the final model on which the interpretations rest. The results partially confirmed the hypotheses. A positive relation between empathic concern and the defender role was found. This indicates that when adolescents' empathic concern was higher, they were more prone to act as defender. However, the results did not confirm a relation between personal distress and the defender role, nor did they confirm the hypotheses that both personal distress and empathic concern mediate a positive relation between maternal support and the defender role.

Discussion

The present research examined whether adolescents' empathic concern and personal distress mediated a link between perceived maternal support and the role(s) adolescents' play in bullying situations. Previous research has found that responses of peers can either increase or decrease the frequency of bullying behavior (Salmivalli et al., 2011). This makes peers a possible target group for interventions against bullying. Better understanding of the factors related to certain peer roles can help prevent bullying and the psychosocial problems that coexist with bullying. Although previous research has studied the direct links between the different variables included in this study, this research was unique in including an examination of possible mediation. Four specific issues were examined. The first aim was to gain insight into adolescents' empathic concern and personal distress by studying their relations with maternal support. The three additional aims focused on the potential mediating roles of empathic concern and personal distress in links between maternal support and three different peer roles, respectively assistant of the bully, guilty bystander, and defender of the victim.

With regard to maternal support, no significant results were found. The guilty bystander role was significantly, positively related to personal distress. The defender role was significantly, positively related to empathic concern. Gender was significantly and

positively related to both empathic concern and personal distress, and negatively related to the assistant role. The absence of significant results for maternal support rendered further tests and examination of mediation irrelevant.

Maternal support, empathic concern, and personal distress

The results of this research did not confirm the hypothesis that maternal support would be positively related to empathic concern. Although several studies have revealed this positive association (Davidov & Grusec, 2006; Kanat-Maymon & Assor, 2010; Miklikowska et al., 2011; Soenens et al., 2007), and have even suggested that empathic concern is the empathy dimension most related to maternal support (Miklikowska et al., 2011), this research did not support the existence of such a link. When comparing the methods used to examine this association, this research differs from previous studies in two ways. First, Miklikowska et al. (2011) used more extensive measures to examine adolescents' perceived maternal support, while this research limited its measure to the Dutch version of the Network of Relationships Inventory (Furman & Buhrmester, 2009). This measure may have been too narrow to capture adolescents' perceived maternal support. Second, this study measured maternal support as a unidimensional construct, whereas other researchers have divided maternal support into two dimensions, respectively responsiveness and warmth (Davidov & Grusec, 2006, Zhou et al., 2002). Davidov and Grusec (2006) revealed the relevance of a two dimensional construct, as their study showed a positive link only between maternal responsiveness and empathy. Thus, the use of a one dimensional construct of maternal support in this study might have masked potential associations.

The present research also did not find support for the prediction of a significant, negative relation between maternal support and personal distress. This hypothesis was cautiously based on the study of Davidov and Grusec (2006). However, this previous research focused on children, whereas the present study included adolescents. Another study including young adults did not find any significant relation between the two constructs (Kanat-Maymon & Assor, 2010). This may indicate that the relation between maternal support and personal distress changes according to age. Future research studying this link should examine this potential developmental change by including different age ranges.

Maternal support, empathic concern, personal distress, and the assistant role

Due to the fact that maternal support was not significantly related to the assistant role, the prediction that empathic concern would mediate this relation was not supported. However, previous findings suggest that adolescents who do not experience warm and interactive maternal support are more likely to assist in bullying (Barboza et al., 2009; Soenens et al, 2007; Spinrad et al., 1999). Moreover, previous research indicated that adolescents with lower levels of empathic concern are more likely to assist in bullying

situations (De Kemp et al., 2007; Jolliffe & Farrington, 2011; Munoz et al., 2011; Stravrinides et al., 2010). Methodological differences between previous studies and this research may explain the contradictory findings. First, both Soenens et al., (2007) and Spinrad et al., (1999) used data from mothers' perspectives as well as examining adolescents' perspectives. Moreover, Spinrad et al., (1999) observed parent-child interaction to determine maternal support. The present research is based on adolescents' self report only, which could explain the differences in outcome. Second, the fact that the Assistant scale of the present study had low reliability can be another explanation for the nonsignificant results. Different results may be found when using an alternative questionnaire, such as The Revised Olweus/Victim Questionnaire (Kyriakides, Kaloyirou, & Lindsay, 2006; Munoz et al., 2011; Olweus, 1996; Stravrinides et al., 2010). In this questionnaire one scale asks directly about the role an individual plays in a bullying situation. This scale can be used to ask pupils to report about their classmates.

Due to the fact that maternal support was not significantly related to the assistant role, the prediction that personal distress would mediate this relation was not supported. Although the direct link between personal distress and the assistant role has been studied less extensively, research does indicate that personal distress is not related to active prosocial behavior (Barr & Higgings-D'Alessandro, 2007). The results of this research did not find any significant results regarding personal distress in relation to the assistant role. Whereas the previous study revealed that personal distress is not related to active prosocial behavior, this research indicates that personal distress is not related to antisocial behavior.

Maternal support, empathic concern, personal distress, and guilty bystander role

Due to the fact that maternal support was not significantly related to the guilty bystander role, the prediction that empathic concern would mediate this relation was not supported. Literature suggests that adolescents who experience high maternal support should benefit from this with regard to the development of social skills (Baldry & Farrington, 2005). Moreover, previous research has indicated that, although guilty bystanders have high levels of empathic concern, they are not likely to act in bullying situations (Gini et al., 2008; Thornberg, 2007). However, this research does not support these previous findings. The contradictory results can be explained by the different methods used compared to previous studies. An explanation may be, for instance, that different social backgrounds were included in the sample by Baldry and Farrington (2005). This more varied sample could increase the variance in outcomes. Furthermore, Gini, Albiero, Benelli, & Altoè (2008) used peer nominations to determine peer roles, and Laible and Carlo (2004) included questionnaires filled in by mothers. Their more extensive measurements may explain the difference in outcomes.

Due to the fact that maternal support was not significantly related to the guilty bystander role, the prediction that personal distress would mediate this relation was not confirmed. A positive link between personal distress and the guilty bystander role was found, however. This strengthens the existing literature that indicates that adolescents with higher levels of personal distress are more likely to avoid bullying situations (Barr & Higgings-D'Alessandro, 2007). The results of the present study add to the earlier findings about the importance of the link between personal distress and the guilty bystander role.

Maternal support, empathic concern, personal distress, and defender role

Due to the fact that maternal support was not significantly related to the defender role, the prediction that empathic concern would mediate this relation was not supported. A positive link between empathic concern and the defender role was found, however. This strengthens the existing literature about the link between empathic concern and defending behaviour (Barchia & Bussey, 2011; Caravita et al., 2009; Gini et al., 2007; Nickerson et al., 2008; Stavrinides et al., 2010; Jolliffe & Farrington, 2011). However, this study cannot support the existing literature indicating that adolescents who perceive high maternal support are expected to benefit from this and develop useful skills for their social school life (Baldry & Farrington, 2005; Nickerson et al., 2008). The lack of a significant link between maternal support and the defender role can be due to the questionnaire used. When using a different questionnaire, such as the Kerns' Attachment Security Scale (Kerns, Klepac, & Cole, 1996; Nickerson et al., 2008), better results could be found.

Maternal support, personal distress, and defender role

Due to the fact that maternal support was not significantly related to the defender role, the prediction that personal distress would mediate this relation was not confirmed. Less extensive research has focused on the relation between personal distress and the defender role. However, it has been indicated that high levels of personal distress are not necessarily related to pro-social behavior (Barr & Higgings-D'Alessandro, 2007). The results of this research did not find any significant results regarding personal distress and the defender role. This is in line with previous studies which have also found no such link.

Gender

Within this research, some significant results were found regarding gender. Gender appeared to be significantly related to both empathic concern and personal distress, with girls reporting higher levels of each empathy dimension than boys. The fact that girls had higher levels of empathic concern than boys is in line with literature (Stavrinides et al., 2010). The research also revealed gender differences in personal distress. Furthermore, results indicated that boys more often assist in bullying. This strengthens existing literature suggesting that boys are more often involved in bullying than girls (Spinrad et al., 1999; Stavridines et al., 2010).

Implications

The findings that personal distress is positively related to the role of guilty bystander, and that empathic concern is positively related to the role of defender, strengthens the indications of previous studies that these empathy dimensions are important factors to consider with regard to different peer roles in bullying situations. As these relations have been repeatedly found to exist, it would be interesting to examine which mechanisms underlie such links. An interesting question for future research is the relation between empathic concern and personal distress for the different peer roles. As previous research has indicated that empathic concern is positively related to both guilty bystander and defending behavior, but that personal distress differs in its relation to the two roles, it would be interesting to know whether personal distress moderates the link between empathic concern and these peer roles. The interrelation between empathic concern and personal distress has been indicated Bierhoff and Rohmann (2004). Moreover, the results of this research confirm the link between personal distress and the guilty bystander role. The aforementioned results could be important for the development of bully prevention programs. The defender role, which is characterized by high empathic concern, is seen as the most pro-social peer role. Interventions directed toward peers could aim, for example, to enhance empathic concern, which in turn could contribute to bullying prevention.

Limitations

The present research has several limitations. The first limitation is the low reliability of the items of the assistant scale used in this study, which could explain why no significant results were found for this bully role. The scale was translated specifically for this study, and was not examined for validity in the new cultural group (Dutch) use in our research. Future research is recommended in order to validate the Participant Role Questionnaire (Salmivalli et al., 1996) for the Dutch population, or to develop a new scale.

Another limitation is the fact that maternal support and the peer roles were measured as perceived only by adolescents themselves. This may have led to a narrow impression of the measured constructs. A previous study that found a link between maternal support and the empathy dimensions or peer roles, used other and more extensive measurements (Miklikowska et al., 2011). Moreover, some researchers have used a two dimensional construct to measure maternal support (Davidov & Grusec, 2006; Zhou et al., 2002). These methodological differences between the present and previous studies may have lead to the difference in outcome. In future research, it is therefore recommended to use more extensive measurements to examine maternal support, such as mother-child observations or including mothers' reports in the study.

Furthermore, the answers to the questionnaires could have been influenced by social desirability. The adolescents may have answered the questionnaires with the idea that bullying is not socially approved, and that maternal support should be high in this society. Future research should take the use of different reporters into account when researching social matters in order to gather broader results.

Other limitations are related to features of the sample. The large majority of the sample consisted of adolescents with a native Dutch background, a stable family situation, and an above-average education level. Moreover, the research included a small sample size. Both the homogeneity and the small sample size may have led to low variance within the results, and limited our ability to generalize the results to the wider Dutch population. For future research it is recommended to conduct a power analysis beforehand to determine an adequate sample size. We also recommend using a sample with a more heterogeneous character regarding background variables.

Conclusion

Despite the limitations, this unique research has important implications. The main findings of this research indicate a clear difference between the guilty bystander role and the defender role, with differential relations to youths' levels of empathic concern and personal distress. Whereas empathic concern seems to be most relevant to the defender role, personal distress appears to be important for the guilty bystander role. Bully interventions aimed at increasing defender behavior of peers should focus on increasing levels of empathic concern and decreasing levels of personal distress.

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Table 1

Descriptive statistics

Variable/Scale	<i>M</i>	<i>SD</i>	Minimum	Maximum
Age	15.78	0.71	14.00	17.00
Maternal support	3.91	0.63	2.08	5.00
Empathic concern	3.57	0.57	2.14	5.00
Personal distress	2.72	0.59	1.43	4.29
Defender role	2.72	0.52	1.55	4.10
Assistant role	1.41	0.44	1.00	2.75
Guilty bystander role	2.62	0.79	1.25	4.75

Table 2

Pearson correlations

Variable/scale	1	2	3	4	5	6	7
1. Age	-						
2. Maternal support	-.02	-					
3. Empathic concern	-.14	-.09	-				
4. Personal distress	-.17	-.15	.43**	-			
5. Assistant role	.20	.09	-.24*	-.11	-		
6. Guilty bystander role	-.13	-.16	-.02	.28**	.11	-	
7. Defender role	.04	.11	.39**	.12	.15	-.18	-

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

Table 3

Results simple regression empathic concern

	<i>B</i>	<i>SE</i>	β	$(\Delta)R^2$
Step 1				.32**
Constant	-.87	.16		
Age	.04	.09	.04	
Gender	1.25	.20	.58**	
Step 2				.01
Constant	-.87	.16		
Age	.04	.09	.04	
Gender	1.25	.20	.58**	
Maternal support	-.10	.09	-.10	
Step 3				.00
Constant	-.87	.17		
Age	.04	.15	.04	
Gender	1.25	.21	.58**	
Maternal support	-.13	.16	-.13	
Maternal support * gender	.04	.20	.03	
Age * gender	-.01	.19	-.00	
Maternal support * age	-.05	.09	-.05	
Step 4				.00
Constant	-.87	.17		
Age	.03	.15	.03	
Gender	1.25	.21	.58**	
Maternal support	-.12	.16	-.12	
Maternal support * gender	.04	.20	.03	
Age * gender	.00	.19	.00	
Maternal support * age	-.10	.14	-.10	
Age * gender * maternal support	.09	.18	.08	

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

Table 4

Results simple regression personal distress

	<i>B</i>	<i>SE</i>	β	$(\Delta)R^2$
Step 1				.13**
Constant	-.50	.19		
Age	-.06	.10	-.06	
Gender	.73	.22	.34**	
Step 2				.02
Constant	-.51	.18		
Age	-.07	.10	-.07	
Gender	.73	.22	.34**	
Maternal support	-.16	.10	-.16	
Step 3				.00
Constant	-.53	.20		
Age	-.02	.17	-.02	
Gender	.75	.23	.35**	
Maternal support	-.13	.18	-.13	
Maternal support * gender	-.03	.23	-.02	
Age * gender	-.07	.21	-.05	
Maternal support * age	.04	.10	.04	
Step 4				.00
Constant	-.53	.20		
Age	-.01	.17	-.01	
Gender	.75	.23	.35**	
Maternal support	-.14	.18	-.14	
Maternal support * gender	-.03	.23	-.02	
Age * gender	-.08	.22	-.06	
Maternal support * age	.07	.15	.08	
Age * gender * maternal support	-.06	.20	-.05	

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

Table 5

Results multiple regression assistant role

	<i>B</i>	<i>SE</i>	β	$(\Delta)R^2$
Step 1				.28**
Constant	.77	.17		
Age	.04	.10	.04	
Gender	-1.10	.21	-.51**	
Step 2				.01
Constant	.77	.17		
Age	.04	.10	.04	
Gender	-1.11	.21	-.51**	
Maternal support	.10	.09	.10	
Step 3				.01
Constant	.88	.20		
Age	.05	.10	.05	
Gender	-1.26	.25	-.58**	
Maternal support	.12	.09	.12	
Empathic concern	.07	.12	.07	
Personal distress	.09	.10	.09	
Step 4				.06
Constant	1.13	.31		
Age	-.02	.21	-.02	
Gender	-1.52	.33	-.71**	
Maternal support	.37	.17	.37	
Empathic concern	.18	.28	.18	
Personal distress	.40	.22	.40	
Empathic concern * gender	-.11	.32	-.08	
Personal distress * gender	-.42	.28	-.34	
Maternal support * gender	-.36	.21	-.30	
Age * gender	.05	.27	.04	
Empathic concern * age	.09	.16	.08	
Personal distress * age	-.28	.12	-.29	
Maternal support * age	-.11	.10	-.12	
Step 5				.04
Constant	1.04	.36		
Age	.01	.29	.01	

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

Table 5 (continued)

Results multiple regression assistant role

	<i>B</i>	<i>SE</i>	β	(Δ) <i>R</i> ²
Gender	-1.41	.38	-.65**	
Maternal support	.47	.18	.47	
Empathic concern	-.05	.34	-.05	
Personal distress	.60	.27	.60	
Empathic concern * gender	.09	.37	.07	
Personal distress * gender	-.57	.31	-.45	
Maternal support * gender	-.40	.21	-.32	
Age * gender	.05	.32	.04	
Empathic concern * age	.27	.25	.25	
Personal distress * age	-.44	.20	-.46*	
Maternal support * age	-.31	.15	-.34*	
Age * gender * empathic concern	-.32	.32	-.17	
Age * gender * personal distress	.26	.25	.18	

p* < .05, *p* < .01

Table 6

Results multiple regression guilty bystander role

	<i>B</i>	<i>SE</i>	β	(Δ) <i>R</i> ²
Step 1				.02
Constant	-.05	.20		
Age	-.12	.11	-.12	
Gender	.07	.24	.03	
Step 2				.03
Constant	-.05	.19		
Age	-.13	.11	-.13	
Gender	.07	.24	.03	
Maternal support	-.17	.10	-.17	
Step 3				.08*
Constant	-.07	.22		
Age	-.10	.11	-.10	
Gender	.10	.28	.04	
Maternal support	-.14	.10	-.14	
Empathic concern	-.20	.13	-.20	
Personal distress	.32	.11	.32**	
Step 4				.10
Constant	.49	.34		
Age	-.52	.23	-.52	
Gender	-.44	.36	-.20	
Maternal support	-.17	.18	-.17	
Empathic concern	.23	.30	.23	
Personal distress	.57	.25	.57*	
Empathic concern * gender	-.46	.35	-.34	
Personal distress * gender	-.32	.31	-.26	
Maternal support * gender	.13	.23	.10	
Age * gender	.59	.30	.44	
Empathic concern * age	-.19	.17	-.18	
Personal distress * age	-.25	.14	-.26	
Maternal support * age	.09	.11	.10	
Step 5				.05
Constant	.18	.30		
Age	-.24	.31	-.24	

p* < .05, *p* < .01

Table 6 (continued)

Results multiple regression guilty bystander role

	<i>B</i>	<i>SE</i>	β	$(\Delta)R^2$
Gender	-.10	.42	-.05	
Maternal support	-.11	.19	-.11	
Empathic concern	-.22	.37	-.22	
Personal distress	.74	.30	.74*	
Empathic concern * gender	.07	.40	.05	
Personal distress * gender	-.42	.34	-.33	
Maternal support * gender	.10	.23	.08	
Age * gender	.38	.35	.28	
Empathic concern * age	.23	.27	.22	
Personal distress * age	-.40	.22	-.42	
Maternal support * age	.03	.17	.04	
Age*gender*empathic concern	-.70	.35	-.38	
Age*gender*personal distress	.27	.28	.19	
Age*gender*maternal support	.10	.22	.08	

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

Table 7

Results multiple regression defender role

	<i>B</i>	<i>SE</i>	β	$(\Delta)R^2$
Step 1				.02
Constant	-.20	.20		
Age	.08	.11	.08	
Gender	.29	.24	.13	
Step 2				.01
Constant	-.20	.20		
Age	.08	.11	.08	
Gender	.29	.24	.13	
Maternal support	.11	.11	.11	
Step 3				.17**
Constant	.23	.21		
Age	.06	.10	.06	
Gender	-.34	.27	-.16	
Maternal support	.16	.10	.16	
Empathic concern	.50	.12	.50**	
Personal distress	-.00	.11	-.00	
Step 4				.03
Constant	.02	.34		
Age	.25	.23	.25	
Gender	-.10	.37	-.05	
Maternal support	.09	.18	.09	
Empathic concern	.32	.31	.32	
Personal distress	-.13	.25	-.13	
Empathic concern * gender	.17	.36	.12	
Personal distress * gender	.18	.31	.14	
Maternal support * gender	.11	.23	.09	
Age * gender	-.25	.30	-.19	
Empathic concern * age	.19	.17	.18	
Personal distress * age	-.04	.14	-.04	
Maternal support * age	-.01	.11	-.01	
Step 5				.02
Constant	.11	.40		
Age	.11	.32	.11	

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

Table 7

Results multiple regression defender role

	<i>B</i>	<i>SE</i>	β	$(\Delta)R^2$
Gender	-.22	.43	-.10	
Maternal support	.12	.20	.12	
Empathic concern	.35	.38	.35	
Personal distress	.06	.30	.06	
Empathic concern * gender	.11	.41	.08	
Personal distress * gender	.04	.34	.03	
Maternal support * gender	.05	.24	.04	
Age * gender	-.13	.35	-.10	
Empathic concern * age	.18	.28	.17	
Personal distress * age	-.25	.22	-.26	
Maternal support * age	.02	.17	.02	
Age * gender * empathic concern	-.00	.35	-.00	
Age * gender * personal distress	.35	.29	.24	
Age * gender * maternal support	-.08	.22	-.06	

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