Empathy as a Mediator Between Parental Attitudes and Adolescents’ Aggressive Behaviour

Abstract. This study was designed to examine relationships between adolescents’ empathy and aggression and parental attitudes. Two hundred and one high school students aged 16-18 completed the Polish Retrospective Parental Attitude Questionnaire, Interpersonal Reactivity Index and the Buss-Perry Aggression Questionnaire. Results showed that paternal attitudes have a great influence on the level of aggression in children, either raising (inconsistency and excessive demands) or lowering it (acceptance and autonomy). In contrast, the role played by empathy is considerably lower and only supports the relationship between parental attitudes and level of aggression. It also turned out that empathy partly plays the role of a mediator between fathers’ parental attitudes and the level of aggression in adolescents.

Keywords: empathy, parental attitudes, father’s attitudes, aggression, adolescents

Słowa kluczowe: empatia, postawy rodzicielskie, postawy ojca, agresja, adolescenci

INTRODUCTION

Parental attitudes and empathy and pro-social behaviour in adolescence

Parental attitudes are an important predictor of social behaviour, especially in late adolescence and during the teenage years (Doyle, Moretti, Brendgen, Bukowski, 2004). Mestre, Tur, Samper, Nácher, Cortés (2007) and Calvette, Gámez-Guadix, Orue (2014) confirm that positive parental attitudes play a strong role in parent-child relationships, thus influencing pro-social and aggressive behaviour in the children. Many theoretical and empirical studies highlight the importance of parental attitudes in the transmission of values, moral norms and pro-social behaviour (Richaud de Minzi, Lemos, Mesurado, 2011). The presence of parental support is associated with a sense of security in childhood and higher self-esteem (Coplan, Hastings, Lagace-Seguin, Moulton, 2002). Maccoby and Martin (1983) propose that parenting styles are influenced by four factors: family communication, warmth and care, needs and clarity of rules. Good parental attitudes are those which meet a balance between high and low parenting responsiveness (i.e. support) and demands (i.e. control) (Llorea, Richaud, Malonda, 2017a). Children raised by parents with positive parental attitudes exhibit less aggression and anger at home and school.

Empathy plays an important role in the engagement of an individual with their ac-
tivities and their behaviour directed towards others. Individuals with higher levels of empathy tend to demonstrate greater pro-social behaviour and less aggression (Eisenberg et al., 2010), and this has been attributed to greater emotional sensitivity and the ability to accept the perspective of another individual. They also have a strong ability to predict possible negative consequences of aggressive behaviour (Maibom, 2012).

A positive parental attitude may increase the development of empathy and pro-social behaviour in children and adolescents. The degree of empathy possessed by teens is positively associated with the level they perceive in their parents (Richaud de Minzi, 2013). Parents may stimulate, model and shape empathic behaviour, and can foster empathy and sympathy for suffering people in their children. Besides, several studies confirm the presence of a positive link between empathy and pro-social behaviour, both in children and in adults (Sahdra, Ciarrochi, Parker, Marshall, Heaven, 2015; Panfile, Laible, 2012; Richaud de Minzi et al., 2011, Pastorelli et al., 2016).

Adolescents’ aggressive behaviour and parental attitudes

Parental attitudes play a major role in the development of the personality and behaviour of the child. They are important for the creation and development of the emotional ties between parents and children. In families in which parents exhibit negative attitudes of parenting and do not appear to consider the needs of children, there is a breakdown of these ties, leading to conflict and lack of communication. Ultimately, this may result in disorders in emotional and social development, resulting in anxiety and aggressiveness in children and teens (Liberska, Matuszewska, Freudenreich, 2013; Lasota, Koźlik-Rączka, 2020; Llorca, Richaud, Malonda, 2017a).

Many studies of aggressive behaviour in children and adolescents highlight the important role played by the structure and functioning of the family in the process of educating children, and the significance of inappropriate parental attitudes in the correct development of children and adolescents (Dominika-Kochanek, Frączek, Konopka, 2012; Liberska, Matuszewska, 2007; Simons, Paternite, Shore, 2001). Excessive control of children by their parents, as well as lack of demands and neglect, negatively affect the socio-emotional development of young people (Mestre, Tur Samper, Latorre, 2010; Samper, Tur, Mestre, Cortés, 2008; Richaud, 2010; Llorca-Mestre, Samper-Garcia, Malonda-Vidal, Cortés-Tomás, 2017b).

In homes where the child is a victim of or a witness to domestic violence, quarrels, physical fights, hatred or anger between parents, the child is motivated to develop aggressive, violent and criminal behaviour. Reduced empathy, social maladjustment, distorted self-image and learned patterns of aggressive behaviour may impact on the behaviour of children. Incorrect socio-emotional development in children during childhood increases the probability of the occurrence of behavioural disorders, aggression and violence in adolescence and adulthood (Eisenberg, Fabes, Guthrie, Reiser, 2000; Mestre et al., 2012; Llorca-Mestre, Malonda-Vidal, Samper-García, 2017c).

Many factors influence aggressive behaviour in young people: the transmission of aggressive behaviour and violence from generation to generation, family victimization and previous emotional deprivation (Gamez-Guadix, Calvete, 2012); however, aggression is also increasingly associated with permissive parenting style and lack of boundaries (Calvete et al., 2014). A very common cause of aggressive behaviour in children and adolescents is emotional neglect, which can be manifested as rejection, real or indirect, through the emotional unavailability of the mother, emotional instability of the parents, lack of love or lack of communication (Gallagher, 2004). On the other hand, physical punishment, coercion, authoritarian style of upbringing or aggressive behaviour by the parents, particularly the mother, encourages the development of aggressive behaviour in children; as a consequence, this can result in violence directed towards the parents (Calvete et al., 2014). Adolescents who are witness to domestic violence learn
aggressive behaviour through modelling and imitation (Pastorelli et al., 2016). Teenagers, who themselves perform physical violence against their mother and father, often experience emotional deprivation, rejection, lack of acceptance or lack of interest in themselves as people, and experience problems with parents during childhood (Calvete et al., 2014).

Llorca et al. (2017) report significant differences between the behaviour of parents of offending and non-offending teenagers. Non-offenders receive more support from both parents, while offenders are far more likely to experience an attitude of permissiveness, negligence and negative control from their parents, or be subject to excessive demands.

**The relationship between empathy and aggression**

Jolliffe and Farrington (2004) indicate that cognitive empathy has a stronger relationship with criminality than affective empathy. Also, it has been found that in male Polish adolescents, perspective taking has a stronger relationship with aggressive behaviour than in females (Lasota, 2017). They acknowledge the existence of a negative correlation between cognitive empathy and levels of physical aggression in both males and females; also, in boys, perspective taking has a negative relationship with the level of anger. Emotional empathy was found to correlate with aggression only in girls: negatively so with the level of physical aggression, and positively with jealousy and one of the hostility-resentment subscales. Furthermore, the third dimension measured by the IRI questionnaire (Davis, 1983), personal distress, has a positive relationship with anger and hostility in both girls and boys. However, Eisenberg et al. (2010) regarding the relationship between empathy and criminality in adolescents and adults, note that affective empathy has a stronger relationship with delinquency in teenagers than cognitive empathy.

Recent studies (Llorca et al., 2017) confirm that aggressiveness in teenagers is negatively associated with pro-social behaviour, and affective empathy (Empathic Concern – EC) has a positive relationship with emotional instability. The author notes that offending and non-offending teenagers present different levels of empathy and aggression, which can be attributed to the parental attitudes and style of the parents. Non-offending adolescents have a higher level of EC and pro-social behaviour and offender adolescents have a higher level of aggressiveness and emotional instability.

Parenting style may have a direct influence on aggressive behaviour, and an indirect one by inhibiting empathy.

**STUDY AIM**

The previous research shows that a child’s behaviour is influenced by parental upbringing effects. Parental attitudes towards children presented by mothers and fathers are of great importance especially for the proper social and emotional development, which is confirmed by the results of many Polish studies (Plopa, 2005; Borecka-Biernat, 2006; Liberska, Farnicka, 2015; Lasota, 2019; Lasota, Koźlik-Rączka, 2020).

Furthermore, mothers and fathers are known to play different roles in the upbringing of their children (Moon, Hoffman, 2008; Sturge-Apple, Davies, Boker, Cummings, 2004). Although a growing body of research indicates the existence of a relationship between positive parental attitudes and pro-social behaviours in children, and another between the negative influence of adverse parental attitudes and aggression in children, far too little attention has been devoted to the differences between the attitudes of mothers and fathers, and their importance in shaping the attitudes and behaviours of their children. Besides, only a very small number of studies examine the relationship between fathers and children (see Calvete et al., 2014).

In the light of these data, it seems reasonable to search for a relationship between the perception of the right and wrong attitudes of parents by young people and their level: inappropriate – aggressive behaviour on the one hand and pro-social, empathic on the other.
Therefore, this study attempts to identify the significance of the relationship between the parental attitudes of mothers and fathers and the levels of aggression and empathy in their children during adolescence. Also, its main aim is to determine whether the level of empathy in adolescents can act as a mediator between motherly and fatherly attitudes and the level of aggression in their children.

The way of understanding aggression we adopted according to Buss and Perry (1992). Aggression is treated as a relatively constant trait of the individual – readiness to experience anger, hostility and presenting aggressive behaviour in the form of physical and verbal aggression.

Empathy is a complex emotional construct (Hall, Schwartz, 2019; Decety, Svetlova, 2012). Most of the authors distinguish two dimensions of empathy: cognitive and affective. Cognitive empathy we can define as the ability to understand the emotional states and perspectives of others. Affective empathy is treated as the ability to be sensitive to, and vicariously experience the feelings of others (Reniers et al., 2011).

The present study was conducted to test five hypotheses:

H1. The girls will have a higher level of empathy but a lower level of aggression compared to the boys.

H2. There will be gender differences in the assessment of retrospective parental attitudes.

H3. There will be a relationship between parental attitudes for both the mother and the father and the level of adolescent aggression.

H4. There will be a relationship between parental attitudes for both the mother and the father and the level of adolescent empathy.

H5. Adolescent empathy will be a mediator between perceived parental attitude and their level of aggression.

Since the results of previous studies on the direction of the relationship between positive and negative attitudes of both parents and the empathic and aggressive behaviour of their children are not unequivocal and obvious, our research was exploratory, so detailed hypotheses was not constructed.

Participants

The studies originally enrolled 280 subjects aged between 16 and 18 years; however, as the study included only children who were brought up by both parents, only 201 respondents were used in the final analysis (M = 16.99, SD = .76). Those brought up by a single parent and those who filled out the questionnaire incompletely were excluded.

The study participants were chosen randomly from the populations of selected general profile high schools in one of the largest cities in Poland. The participants attended schools with a range of didactic profiles: Biology and Chemistry (25.7%) preparing adolescents for studying Medicine or Social Sciences, Mathematics and Physics (27.4%), preparing for Pure Science and a more general profile of studies (46.9%). Most of the study group were female: 57.7% female and 42.3% male.

METHODS

Parental attitudes

The KPR-Roc, the Polish Retrospective Questionnaire for assessing parental attitudes (Plopa, 2008) was used to study parental approaches. The questionnaire is based around five parental attitude factors which it uses to describe the relationship between parent and child: acceptance/rejection, autonomy, inconsistency, over-protection, and excessive demands. The tool has two versions: one describing the attitude of the mother and the other of the father. Each test contains 50 statements, each with five possible answers, ranging from A (definitely the case, and behaved this way) to E (definitely was not the case, and did not behave this way). Two sample items are: *My mother was always unhappy with me*, *My father let me understand that he loves me*.

Confirmatory factor analysis was conducted to confirm the factor structure. The goodness of fit of the obtained values for the indicators was favourable, indicating a good fit to the model. The GFI, AGFI and RMSEA indicators...
were found to be good. The reliability for each of the five scales was also good: between .86 for an autonomous attitude and .93 for an inconsistent attitude (Plopa, 2008). The internal consistency reliability in our study was $\alpha = .72$ (version about mothers) and $\alpha = .79$ (version about fathers).

**Empathy**

Empathy was measured according to the Interpersonal Reactivity Index (Davis, 1980). It contained 28 items, comprising factors measuring separate but intercorrelated components of empathy. The first dimension is perspective taking (PT) scale representing the ability to adopt someone else’s perspective, e.g. *When I am upset at someone, I usually try to put myself in his shoes for a while.* The second dimension is empathic concern (EC), representing the ability to experience empathy and compassion toward suffering people and those experiencing difficult emotions (e.g. *When I see someone being taken advantage of, I feel kind of protective towards them*). The third is personal distress (PD), understood as a tendency to feel personal distress and discomfort in situations when others are suffering (e.g. *I sometimes feel helpless when I am in the middle of a very emotional situation*). The fourth, fantasy (F), contains statements about the respondents imagining themselves in a hypothetical situation and their behaviour.

Because according to Davis (1980), the fantasy scale is the least embedded in the theoretical basis, and it is not clear whether this scale assesses the cognitive or emotional aspect of empathy, both the author and other researchers often omit this scale in their research (see Davis, Hall, Meyer, 2003; Kaźmierczak, Plopa, Retowski, 2007). This article also omits the results of the fantasy scale. In questionnaire, the subjects answered using a five-point scale from A (does not describe me at all) to E (describes me completely). The reliability of all scales corresponded to a Cronbach’s alpha value of .85 (Davis, 1980). In our study internal consistency was satisfactory for all subscales’ scores; the total score showed alpha coefficient of .88.

**Aggression**

The level of aggression in young people was measured using the Polish adaptation (Aranowska, Rytel 2012) of the Buss-Perry Aggression Questionnaire (BPAQ) (1992). The questionnaire contains 29 items, subdivided into four main factors: verbal aggression (five items) (e.g. *When people annoy me, I may tell them what I think of them*), physical aggression (nine items) (e.g. *Once in a while, I can’t control the urge to strike another person*), anger (eight items) (e.g. *I wonder why sometimes I feel so bitter about things*) and hostility (eight items) (e.g. *I am suspicious of overly friendly strangers*). The respondents gave their answers on a five-point scale from 1 (does not describe me at all) to 5 (completely describes me), describing the degree in which each statement applies to them. Cronbach’s alpha was .83 (Aranowska, Rytel 2012). Cronbach’s alpha of the overall score obtained in our study .87.

**RESULTS**

In order to verify our hypotheses (H1–H5), several statistical analyses were performed. The first analysis was concerned with a determination of the intergroup difference between the studied boys and girls about retrospectively-assessed parental attitudes, level of empathy and aggression. The data was found to have a normal distribution and so parametric tests were used. The Student’s $t$-test was used to determine the difference between means, and Pearson’s correlation coefficient was calculated to determine the relationship between variables. The mediation bootstrapping method was used to verify whether the child’s empathy played a mediating role between parental attitudes and the aggressive behaviour of the child.
The differences between boys and girls in the level of empathy, aggression and perceived parental attitudes

Table 1. The differences between boys and girls concerning perceived parental attitudes, children’s empathy, and aggression. Means and Standard Deviations (SD)

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th></th>
<th>Girls</th>
<th></th>
<th>t Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Accepting mother/father</td>
<td>37.28 / 37.71</td>
<td>8.75 / 8.14</td>
<td>40.69 / 36.51</td>
<td>7.36 / 9.82</td>
<td>-2.99** / .92</td>
</tr>
<tr>
<td>Autonomy given by mother/father</td>
<td>36.13 / 38.96</td>
<td>7.89 / 7.41</td>
<td>39.85 / 36.92</td>
<td>7.21 / 9.34</td>
<td>-3.48*** / 1.67</td>
</tr>
<tr>
<td>Overprotective mother/father</td>
<td>35.85 / 26.80</td>
<td>6.40 / 8.26</td>
<td>32.79 / 28.61</td>
<td>6.84 / 8.03</td>
<td>3.21** / -1.56</td>
</tr>
<tr>
<td>Perspective Taking</td>
<td>15.53</td>
<td>4.03</td>
<td>17.22</td>
<td>4.37</td>
<td>-2.81**</td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>14.65</td>
<td>5.12</td>
<td>17.76</td>
<td>5.11</td>
<td>-4.26***</td>
</tr>
<tr>
<td>Personal Distress</td>
<td>10.55</td>
<td>5.64</td>
<td>13.41</td>
<td>4.95</td>
<td>-3.82***</td>
</tr>
<tr>
<td>Aggression</td>
<td>79.72</td>
<td>17.22</td>
<td>76.45</td>
<td>14.00</td>
<td>1.48</td>
</tr>
<tr>
<td>Anger</td>
<td>16.79</td>
<td>6.90</td>
<td>20.01</td>
<td>5.54</td>
<td>-3.67***</td>
</tr>
<tr>
<td>Physical Aggression</td>
<td>23.62</td>
<td>6.84</td>
<td>17.88</td>
<td>6.41</td>
<td>6.10***</td>
</tr>
<tr>
<td>Verbal Aggression</td>
<td>17.00</td>
<td>4.26</td>
<td>15.07</td>
<td>3.78</td>
<td>3.39***</td>
</tr>
<tr>
<td>Hostility</td>
<td>22.27</td>
<td>6.45</td>
<td>23.49</td>
<td>5.72</td>
<td>-1.42</td>
</tr>
</tbody>
</table>

**p < .01, ***p < .001.

Studies show that differences related to the gender of the child (male, female) were visible among the attitudes of mothers but not fathers (Table 1). It was found that teenage daughters felt more accepted by the mother than boys ($t = -2.99, p < .01$). The girls also reported greater feelings of autonomy from the mother’s side than the boys ($t = -3.48, p < .001$); however, the sons perceived greater demands from the mothers ($t = 4.30, p < .001$). The retrospective evaluation indicated that the mothers were seen to demonstrate a slightly more protective attitude to sons than daughters ($t = 3.21, p < .01$); however, no such difference was found between boys and girls concerning the paternal attitude. Gender differences were observed in relation to empathy. The girls were found to have significantly higher scores in both cognitive empathy, i.e. perspective taking (PT) ($t = -2.81, p < .01$), as well as in affective empathy: empathic concern EC ($t = -3.26, p < .001$) and personal distress (PD) ($t = -3.82, p < .001$).

The respondents also differed about the level of aggression. Girls displayed anger in their behaviour significantly more often than boys ($t = -3.76, p < .001$). However, the boys dem-
onstrated higher levels of verbal aggression ($t = 3.39, p < .001$) and physical aggression ($t = 6.10, p < .001$).

Further analyses examined the relationship between attitudes of the parents and the empathy and the aggression demonstrated by their children, excluding gender as a variable. Pearson’s correlation coefficient was calculated.

**Relationship between attitudes of the parents, and adolescent empathy, and aggression**

The correlation analysis revealed a significant relationship between parental attitudes for both the mother and the father and the level of aggression in adolescents (Table 2). A moderately negative correlation was found between the acceptance of the child by the parents and the level of aggression in the child, regardless of the gender of the child, with a stronger effect observed for the father ($r = -.39, p < .01$) than the mother ($r = -.26, p < .01$). It was found that the parental attitude chiefly affected the anger and hostility subscale of aggression.

Also, a parental attitude favouring autonomy was associated negatively with aggression in the respondents, regardless of their gender. Perceptions of autonomy stemming from either parent correlated negatively with anger (mothers $r = -.19, p < .01$; fathers $r = -.35, p < .01$) and hostility from the children (mothers $r = -.28, p < .01$; fathers $r = -.24, p < .01$). More importantly, greater autonomy on the mother’s side negatively correlated with physical aggression ($r = -.24, p < .01$) in the respondents.

Table 2. Correlation between attitudes of the parents, empathy and aggression in their children

<table>
<thead>
<tr>
<th>Empathy</th>
<th>Accepting mother</th>
<th>Demanding mother</th>
<th>Autonomy given by mother</th>
<th>Inconsistent mother</th>
<th>Overprotective mother</th>
<th>Accepting father</th>
<th>Demanding father</th>
<th>Autonomy given by father</th>
<th>Inconsistent father</th>
<th>Overprotective father</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT EC PD A PA VA H Aggression Sum</td>
<td>.00 -.01 -.05 -.21** -.02 .12 -.33** -.26**</td>
<td>-.01 -.12 .03 .13 .20** .11 .25** .27**</td>
<td>.09 .06 -.05 -.19** -.24** .16 -.28** -.34**</td>
<td>.00 -.06 .04 .29** .16* .16 .25** .33**</td>
<td>.00 .00 .11 -.05 .15* .03 -.04 .04</td>
<td>.06 -.14 -.27** -.38** -.15* .06 -.38** -.39**</td>
<td>-.13 .07 .23** .36** .10 .02 .14* .25**</td>
<td>.06 -.19** -.24** -.35** -.06 .03 -.24** -.27**</td>
<td>-.16* .08 .26** .28** .10 .08 .14 .19**</td>
<td>.01 .03 -.04 .13 .00 .12 -.19** -.05</td>
</tr>
</tbody>
</table>


*p < .05, **p < .01.*
A positive correlation was found between a negative parental attitude, inconsistencies in upbringing, and the level of aggression reported by the respondents, with a stronger relationship with the attitudes of the mothers \( (r = .33, p < .01) \) than the fathers \( (r = .19, p < .01) \). Inconsistent mother’s behaviour towards the child was significantly associated with anger \( (r = .29, p < .01) \) and hostility \( (r = .25, p < .01) \), while in the case of fathers, inconsistent behaviour had a positive relationship only with anger in their children \( (r = .28, p < .01) \).

Aggression by teenagers correlated positively with another negative attitude presented by the parents in the process of raising their children, namely excessive demands. Placing of excessive demands on children during childhood by either the mother or the father was found to have a positive relationship with their level of aggression during adolescence \( (r = .27 \) and \( r = .25 \) respectively). Excessive demands, or making demands inappropriate to the age or capabilities of the child by the mother correlated positively with the level of physical aggression \( (r = .20, p < .01) \), and hostility \( (r = .25, p < .01) \), while this attitude correlated positively with anger \( (r = .36, p < .01) \) and also with hostility \( (r = .14, p < .01) \), when associated with the father. A weak negative relationship was found between a father demonstrating an attitude of protectiveness toward the children and hostility \( (r = -.19, p < .01) \), in both boys and girls during puberty. On the other hand, there was a weak positive relationship between the overprotective mothers and the physical aggression \( (r = .15, p < .01) \) of teenagers.

An analysis of the relationship between parental attitudes and level of empathy, without accounting for the gender of the child, only identified statistically significant relationships regarding the fathers (Table 2). The strongest correlation with paternal attitude was found for personal distress (PD). This variable was negatively associated with positive parental attitudes by the father, i.e. acceptance \( (r = -.27, p < .01) \) and sense of autonomy \( (r = -.24, p < .01) \), but was positively associated with negative parental attitudes, such as inconsistency \( (r = .26, p < .01) \) or excessive demands \( (r = .23, p < .01) \).

Besides, a perceived fatherly attitude of autonomy negatively correlated with the level of empathic concern. The cognitive empathy of adolescents, i.e. the ability to take someone else’s perspective, correlated negatively with the inconsistent attitude of the fathers \( (r = -.16, p < .05) \). There was another negative relationship between empathic concern and autonomy given by the father \( (r = -.19, p < .01) \).

When including genders of both parents and children in the analysis, significantly greater dependence and relationships were found between parental attitudes and the level of empathy and aggressive behaviour in children (see Lasota, 2019). Mothers’ attitudes strongly correlate with the cognitive empathy of children of both genders. The attitudes of fathers are associated with all dimensions of empathy for sons but not daughters. Among the girls, only the relationship between fathers’ attitudes and personal distress was noticed. A perceived positive attitude by the mothers (acceptance and autonomy) was found to have a positive relationship with cognitive empathy in sons, but a negative relationship with PT in daughters. The opposite was found in inappropriate attitudes. A high level of inconsistency and excessive demands by mothers correlated negatively with the level of PT in boys, but positively with PT in girls. A weak negative correlation was found between perceived attitudes of autonomy and acceptance by the mothers and EC in girls; however, protective attitudes and inconsistency by the mother were positively correlated with PD in boys. Paternal attitudes also differed depending on the gender of the teenage child; for example, negative fathers’ attitudes were associated with personal distress in girls. Paternal attitudes also associated with the level of cognitive and affective empathy in sons. Undesirable attitudes (excessive demands and inconsistency) negatively correlated with every dimension of empathy in boys. Positive fatherly attitudes (acceptance and autonomy) were negatively associated with empathic concern and personal distress in sons.

The relationships between parental attitudes and aggressiveness in the child were also examined using specific analyses taking into account the gender of the child. It was revealed that posi-
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Empathy as a mediator between parental attitudes and adolescent aggression

The following mediation analysis attempted to determine whether empathy acted as a mediator in the relationship between the parental attitudes demonstrated by the mother and the father and the level of aggression in teenagers, for the verification of hypothesis 5. It was based on the bootstrapping procedure proposed by Preacher and Hayes (2008), with 5000 randomised bootstrap samples.

The first stage focused on the role of empathy in the relationship between parental attitudes and aggression. For this purpose, model 7 was used with the PROCESS macro by Hayes (2013). The parental attitudes demonstrated by both parents were input as the independent variable, and aggression as the dependent variable, while the dimensions of Empathy (Cognitive and Affective) were used as mediators, and gender as a moderator. Path C depicts a direct relationship between parental attitudes and aggression, while Path C indicates an indirect effect on aggression by controlling for mediators. The other paths refer to the relationship between parental attitudes and mediators (Path A) and between mediators and aggression (Path B). Applying moderation allowed more control to be exerted on the models since the level of empathy in the respondents varied by gender.

The findings indicate that the introduction of the empathy dimensions as mediators influenced the relationship between the parental attitudes of the father and aggression in the child to a small degree (a slight decrease in the Beta coefficient) suggesting partial mediation. The bootstrapping analysis indicated that the analysed direct effect is in the range not containing the value zero, and therefore is significant. No such relationship was observed in the case of parental attitudes by the mother, which suggests that aggression in teenagers may be primarily dependent on the father’s attitudes, and to a lesser extent on the mother’s.

Cognitive empathy of adolescents as a mediator between aggression and parental attitudes of fathers

In the first analysis of mediation (Figure 1), set as an independent variable was an inconsistent attitude of fathers, as a mediator - cognitive empathy dimension – perspective taking, as a dependent variable – adolescent aggression. A direct relationship between all variables was confirmed. The higher the father’s inconsistency in behaviour, the lower the child’s cognitive empathy level ($\beta_a = -0.18, p < .05$). The higher the ability to adopt someone else’s perspective, the lower the level of aggressiveness ($\beta_b = -0.32, p < .001$). The direct relationship between inconsistent father’s attitude and aggression turned out to be statistically significant ($\beta_c = 0.20$). After inclusion of the mediator – perspective taking – into the model –, it turned out that the role of the independent variable is weakening ($\beta_c' = 0.14$). We confirm partial mediation.

Moreover, regarding the relationship between perceived inconsequent attitudes by the father and the level of aggression in the child, taking into account the level of empathy in the child, it was found that gender of the child played a full moderating role, as such relationships were observed in boys ($\beta = 0.021, p < .01$)
but not in girls. A similar situation was observed in the case of an autonomous attitude by the father and the level of aggression demonstrated by the child, which was only observed for the boys ($\beta = .27, p < .001$) (see Figure 2).

**Affective empathy of adolescents as a mediator between aggression and perceived fathers’ attitudes**

In the second analysis (Figure 2), set as an independent variable was the positive attitude of the father – autonomous attitude, set as a mediator was affective empathy dimension – empathic concern, and as a dependent variable – adolescent aggression. The results confirmed that the higher the level of autonomy of the father towards the child, the lower the level of affective empathy ($\beta_a = –.16, p < .05$) and the lower the level of aggression in children ($\beta_c = –.29, p < .001$). The higher the level of affective empathy, the lower the level of aggression ($\beta_b = –.17, p < .05$). Inclusion of the mediation variable (empathic concern) increases the relationship between the positive attitude of fathers and aggression of boys in adolescence ($\beta_{c'} = –.32, p < .001$).

**Personal distress of adolescents as a mediator between aggression and perceived fathers’ attitudes**

In the next four mediation analyses, the third dimension of empathy – personal distress (PD) was checked as a mediator between the father’s positive or negative attitudes and the level of adolescent aggression. Figure 3 shows that the higher level of father’s attitude of acceptance, the lower level of personal distress of the child ($\beta_a = –.24, p < .001$). There was a direct relationship between personal distress and aggression. The higher the level of PD, the higher level of aggression ($\beta_b = .18, p < .01$). Personal distress was found to act as a mediator between an attitude of acceptance the level of aggression in sons ($\beta_{c} = –.40, p < .001, \beta_{c'} = –.35, p < .001$).

A high level of personal distress in the children (both girls and boys) also reduces the impact of a second positive father’s attitude – autonomy on the level of adolescents’ aggression (Figure 4). A direct negative link has been confirmed between autonomous attitude by the fathers and personal suffering of teenagers ($\beta_a = –.21, p < .01$) and a positive link between adolescent PD and their aggression ($\beta_b = .18, p < .01$). We found direct relationship between autonomous attitude by the fathers and child aggression ($\beta_{c} = –.29, p < .001$) and indirect relationship through personal distress ($\beta_{c'} = –.24, p < .001$). We confirm partial mediation (Figure 4).

In the last two models (Figure 5 and Figure 6), the independent variable was the father’s demanding or inconsistent attitude, the dependent variable was the level of aggression in adolescents, and the mediator was personal distress.

As shown in Figure 5, a direct positive relationship between negative demanding attitudes of father and personal distress was confirmed ($\beta_a = .24, p < .001$). Also, a direct negative relationship between adolescent PD and their level of aggression was found ($\beta_b = .18, p < .01$). As expected, the direct and indirect (through personal distress) relationship between the father’s attitude of excessive demands on the child and the level of child aggression was also confirmed ($\beta_{c} = .25, p < .001, \beta_{c'} = .19, p < .01$). Because of $c'$ coefficient being statistically significant there is evidence for partial mediation.

The last model (Figure 6) shows direct link between father’s inconsistent attitude and personal distress of the child ($\beta_a = .24, p < .001$) and PD and aggression ($\beta_b = .24, p < .01$). There was also a direct relationship between independent and dependent variable ($\beta_c = .20, p < .01$). The more inconsistent the father’s attitude, the higher the aggression of the teenage child. When personal distress was included in the model (indirect effect), the relationship between the negative attitude and adolescent aggression decreased ($\beta_{c'} = .14, p < .05$). Personal distress slightly lowers the impact of negative, undesirable attitudes by the father on the level of aggression experienced by young people, regardless of gender.
Empathy as a Mediator Between Parental Attitudes and Adolescents’ Aggressive Behaviour

Gender

\[ \beta = 0.21^{**} \]

\[ \beta_a = -0.18^* \]

Inconsistent attitude by the father

\[ \beta_c = 0.20^{**} \]

\[ \beta_c' = 0.14^* \]

Perspective Taking

\[ \beta_b = -0.32^{***} \]

Aggression

*\( p < .05, **p < .01, ***p < .001 \).

Figure 1. Model of the relationship between inconsistent attitude by the father, cognitive empathy, and aggression, controlling for gender of the child.

Gender

\[ \beta = 0.27^{***} \]

\[ \beta_a = -0.16^* \]

Autonomous attitude by the father

\[ \beta_c = -0.29^{***} \]

\[ \beta_c' = -0.32^{***} \]

Empathic Concern

\[ \beta_b = -0.17^* \]

Aggression

*\( p < .05, **p < .01, ***p < .001 \).

Figure 2. Model of the relationship between autonomous attitude by the father, empathic concern, and aggression, controlling for gender of the child.

Gender

\[ \beta = 0.24^{***} \]

\[ \beta_a = -0.24^{***} \]

Father’s attitude of acceptance

\[ \beta_c = -0.40^{***} \]

\[ \beta_c' = -0.35^{***} \]

Personal Distress

\[ \beta_b = 0.18^{**} \]

Aggression

*\( p < .05, **p < .01, ***p < .001 \).

Figure 3. Model of the relationship between attitude of acceptance by the father, personal distress, and aggression, controlling for gender of the child.
**Figure 4.** Model of the relationship between attitude of autonomy by the father, child’s personal distress, and aggression.

\[ \beta_a = -0.21^{**} \]
\[ \beta_b = 0.18^{**} \]
\[ \beta_c = -0.29^{***} \]
\[ \beta_c' = -0.24^{***} \]

*\( p < .05, **p < .01, ***p < .001 \).

**Figure 5.** Model of the relationship between father’s demanding attitude, child’s personal distress, and aggression.

\[ \beta_a = 0.24^{***} \]
\[ \beta_b = 0.18^{**} \]
\[ \beta_c = 0.25^{***} \]
\[ \beta_c' = 0.19^{**} \]

*\( p < .05, **p < .01, ***p < .001 \).

**Figure 6.** Model of the relationship between father’s attitude of inconsistency, child’s personal distress, and aggression.

\[ \beta_a = 0.24^{***} \]
\[ \beta_b = 0.24^{**} \]
\[ \beta_c = 0.20^{**} \]
\[ \beta_c' = 0.14^{*} \]

*\( p < .05, **p < .01, ***p < .001 \).
DISCUSSION

The process of personality development and socialization in children, and later in teens, is subject to a range of factors in the family environment. In the present study, a clear link can be seen between parental attitudes and the pro-social and anti-social behaviour demonstrated by adolescents.

Our study confirms, firstly, existence of a gender difference between the level of empathy and aggression of boys and girls in adolescence. The first hypothesis (H1) that girls will have a higher level of empathy but a lower level of aggression compared to boys was confirmed. The girls demonstrated higher scores in all dimensions of empathy: PT, EC and PD, though the greatest difference occurred in the field of affective empathy. This analysis confirms the findings obtained in many earlier studies (Michalska et al., 2013; Fischer, LaFrance, 2015; Lasota, 2017). Differences in aggression were also observed between girls and boys. The boys demonstrated a significantly higher level of verbal and physical aggression than girls but a lower level of anger. This finding is in line with results from the study by Card et al. (2008) and Lasota (2019). These results obtained are similar to those recently obtained by Llorca et al. (2017), which note that aggression in adolescents correlates negatively with pro-social behaviour and empathic concern, and positively with emotional instability.

Secondly, our empirical findings confirm the second hypothesis (H2) that gender of the child has a relationship with the severity of positive and negative attitudes of parents. For example, the girls felt more accepted by their mothers and reported a greater sense of autonomy from them than the boys did, while the male respondents felt higher levels of excessive demands and overprotection from the mothers than the girls did. We can find an explanation in a different children socialization. Girls from early childhood are taught greater openness and acceptance of their behaviour, hence the relationships between women (like mother-daughter relationship) are characterized by greater openness than the relationships between men (Mandal, 2004; Juroszek 2010).

Thirdly, the hypothesis about the relationship between parental attitudes for both the mother and the father and the level of adolescent aggression has also been confirmed (H3). A positive relationship was found between the perception of negative attitudes by the mother and the father (inconsistencies and demands) and aggressive behaviour by their children during adolescence. Besides, a negative relationship was found between positive attitudes demonstrated by the mother and the father (acceptance and autonomy) and the level of aggression in the respondents.

The perception of an inconsistent attitude and indulgence by the parents, especially the mothers, together with excessive demands, was associated with aggression and more aggressive behaviour in adolescents. If the mother displayed an authoritarian attitude, a high level of external reaction (physical aggression) and attitude (hostility) was observed in the child, while if the father placed high demands on a child who is not able to meet them, an emotional reaction (anger) was observed.

These results are consistent with the general developmental literature, which indicates that the authoritarian parenting style is associated with a high level of aggression among children and adolescent (Liberska, Matuszewska, 2007; Lasota, 2019). Authoritarian parents tend to be more demanding and controlling of their child's behaviours (Devine et al., 2011), which in adolescence can be understood by young people as limiting their autonomy and independence. If parents present undesirable parental attitudes, there is an increased risk that a higher level of aggression will be seen in the behaviour of children, especially teenagers (Liberska, Matuszewska, Freudenreich, 2013).

The choice of parental attitude is strongly associated with the intensity of aggressive behaviour in children, especially among adolescents. Adolescence is a difficult period of development, in which the negative attitudes of parents may affect the growth of self-identity in their children, thus exacerbating the problems of assimilating moral norms; this can lead to
aggression, violence and ultimately, failure to become part of society.

Another important finding is the fact that parental attitudes by both fathers and mothers have different relationships with empathy in their children, which confirm the fourth hypothesis (H4). A positive attitude by mothers had a negative relationship with PT and levels of anger in girls. However, an attitude of mothers’ acceptance or autonomy correlates positively with the ability to empathize in boys. An explanation may be found in the understanding of a sense of independence of the maturing adolescents or full acceptance by the parent. Additional information obtained from the respondents during the tests indicates that the girls often regard excessive autonomy and acceptance on the part of the mothers as being permissive or indulgent, lacking limits and as a lack of interest by the mother. No such dependencies were observed in boys.

A recent publication on parenting styles, pro-social, and aggressive behaviour of adolescents has cast some light on the different roles played by parents in their upbringing (Llorca et al. 2017). The results indicate that for the father, pro-social behaviour in offending adolescents (teen criminals) is positively associated with support, while for the mother, aggressiveness is positively associated with a negligent attitude and negatively associated with support. Permissiveness from both parents is negatively associated with pro-social behaviour, while paternal permissiveness is positively associated with emotional instability. Polish research (Plopa, 2005) showed that the feeling of acceptance from one parent only and rejection by the other decreases the child’s ability to control emotions. Jankowska (2019) confirms that positive paternal attitudes correlate stronger with the empathy of sons and maternal relate more to daughters’ empathy. Research results also indicate two negative attitudes of parents (demanding and inconsistent) that are not conducive to the development of emotional intelligence, including empathy. Positive attitudes of parents, parenting sensitivity, and love presented to the child foster the development of empathy and pro-social behaviour. In contrast, inappropriate parent attitudes can lead to aggressiveness in children, and even in a failure to integrate into society.

And finally, our research supports the fifth hypothesis (H5). The present study suggests that both types of empathy, cognitive and affective, play significant role in suppressing aggressive behaviour in young people although the mediation effect is not very big. These results partially confirm other studies (Llorca-Mestre et al., 2017c; Llorca et al., 2017a), because in our study empathy acts as a mediator only between the attitudes of fathers and the aggression of teenage children (especially sons).

This is dependent on the parental attitudes presented by the father. Cognitive empathy, that is, the ability to adapt the perspective of another, is particularly helpful in inhibiting aggression in boys when the father displays an inconsistent attitude. A high level of affective empathy, or compassion, also helps boys to inhibit aggression caused by the attitudes of autonomy or full acceptance by the father. Unfortunately, the presentation of negative attitudes by the father reduces the ability of young people to cope with their own negative emotions, which in turn invokes and reinforces their aggressiveness. A high level of PD in teenagers, regardless of gender, strengthens the aggression, particularly when the father presents excessive demands or inconsistent and even autonomous attitudes.

In sum, results of this study confirm the parental attitudes of the fathers have the greatest direct and indirect influence on the level of aggression in children, either raising (inconsistency and demanding) or lowering it (acceptance and autonomy) and empathy is likely to diminish aggressive behaviour of adolescents (cognitive empathy) or to support a greater externalization of behaviours such as aggression (affective empathy, especially personal distress). Most importantly, our findings indicate that the attitudes of the father are related to the level of empathy in the children, which is dependent on gender, and these have a consequent effect on the level of aggression.
Limitations

This study has got some limitations. It is cross-sectional, which does not allow a clear picture to be gained about the causal relationships presented in the sample. The studies included a small number of teenagers. Also, when planning future studies, more individual variables taking into account other predispositions displayed by the child and various environmental determinants related to family functioning should be considered. It would be worth considering multicultural cross-sectional studies and exploring the relationship between paternal attitudes to parenting and the level of empathy in their children in other European countries with similar approaches to upbringing; this would allow a fuller comparison of the significance and influence of paternal attitudes on aggression in adolescents.

Despite these limitations, it should be emphasized that our findings provide a broader perspective on the relationship between upbringing, parental attitudes and social behaviour in adolescents. Our findings indicate the need to draw attention to the importance of positive attitudes by both parents in the development and upbringing of the child. They also recognize and empirically confirm the underestimated role of the father in educating and shaping the emotional and social development of children and adolescents.

REFERENCES

Aranowska E., Rytel J. (2012), Factorial structure of the Buss-Perry Aggression Questionnaire (BPQA) in Polish population. Studia Psychologica UKSW, 12, 2, 135–151.


Davis M.H. (1980), A multidimensional approach to individual differences in empathy. JSAS Catalog of Selected Documents in Psychology, 10, 4, 85.


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Richaud de Minzi M.C., Lemos V., Mesurado B. (2011), Relaciones entre la percepción que tienen los niños de los estilos de relación y de la empatía de los padres y la conducta prosocial en la niñez media y tardía. *[Relationship between children’s perception of parental relationship and parental empathy and prosocial behavior in middle and late childhood]. Avances en Psicología Latinoamericana,* 29, 330–343.


