



**The Effects of Parental Divorce on Children's Direct and Indirect Aggressive**

**Behavior**

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### **Abstract**

Research to date suggests that parental divorce increases the likelihood that children exhibit aggressive behavior. Nonetheless, there is a lack of studies investigating whether this also holds for different ways aggression can be manifested, such as for direct and indirect aggression. The present study aimed to fill this gap in the literature. Dutch adolescents between the ages of 12-18 ( $M = 13.87$ ,  $SD = 1.1$ ,  $N = 869$ , 53% boys) were recruited at four high schools and were asked about parental divorce and forms of exhibiting aggressive behavior. This study hypothesized that children of divorced parents exhibit higher levels of both direct and indirect aggression. This study also hypothesized that the relationship between parental divorce and direct aggression is stronger for boys than for girls, while the opposite was expected for indirect aggression. Furthermore, considering research findings that show a differential impact of parental divorce on adult men and women, the present study investigated whether the relationship between parental divorce and aggression is moderated by gender. To test the hypotheses, hierarchical regression analysis was applied. The findings provided evidence for the relationship between divorce and direct and indirect aggression and shed further light on the path connecting parental divorce with aggression by showing that gender does not moderate this relationship. The present findings are in line with the first hypothesis, partly in line with the second hypothesis and they contradict the third hypothesis.

**Keywords:** divorce, direct aggression, indirect aggression, gender, children, boys, girls

## **The Effects of Parental Divorce on Children's Direct and Indirect Aggressive Behavior**

Parental divorce is one of the most stressful and life-changing moments in a child's life (Huurre et al., 2006). A divorce can be defined as "a legal dissolution of the marriage relation; any formal separation of a man and his wife according to established custom; a complete separation of any kind" (Ukpong, 2018 as cited in Eyo, 2018 p. 173). Out of 100 marriages in the Netherlands, 47.3 ended in a divorce in 2019 (Marriage And Divorce Statistics, 2021). In 2010, 36,9% of marriages ended in a divorce while in 1980 this percentage was 29,9% (CBS Statline, 2020). Due to this rapid increase in divorce rates, clinicians and scholars have been interested in both the positive and the negative effects of divorce (Gately & Schwebel, 1993).

Parental divorce can bring drastic changes in a child's life and it has been associated with multiple negative mental health outcomes (Chase-Lansdale et al., 1995). For instance, a study among 8 to 12 years-old in Spain found that children who have experienced parental divorce scored lower on well-being scales compared to children who have not (Orgilés & Samper, 2011). The effects of divorce can be manifested as internalizing behavior, such as depression and low self-esteem, as well as externalizing behaviors, such as delinquency and aggression (Hamama & Ronen-Shenhav, 2012; Lansford, 2006). Studies have shown that children with divorced parents showed higher levels of anxiety and depression than children without divorced parents (Storksén et al., 2006). Not only higher levels of anxiety and depression were found in children with divorced parents, but young delinquents are also more likely to be raised in a household with divorced parents (Burt, 2008). Additionally, higher levels of aggression were found in adults and teenagers who have experienced parental divorce in comparison to those who grew up in a household with two parents (Averdijk et al., 2012; Hamama & Ronen-Shenhav, 2012; Salahian et al., 2021).

Aggression can be defined as an outcome of the links between hostile thoughts, angry emotions, and aggressive behaviors (Buss, 1961). It can be driven by proactive or reactive motives and can be expressed in different ways (Vitaro & Brendgen, 2005). This paper aims to focus on direct manifestations of aggression (also known as direct aggression), such as verbal intimidation which happens face-to-face, as well as on indirect aggression, which is delivered in an evasive manner, such as spreading rumors (Kaukiainen et al., 1999). Indirect aggression can be seen as a type of social manipulation where the person inflicting harm uses their social structure to harm someone (Kaukiainen et al., 1999). Furthermore, direct aggression is generally defined as showing violent behavior towards others while indirect aggression is usually understood as behavior harming by rejecting or excluding a person (Card et al., 2008). Direct and indirect aggression are umbrella terms for a variety of aggressive actions. For example, manipulation, intimidation, and gossiping are all forms of indirect aggression. Similarly, bullying and hitting are examples of direct aggression.

Both types of aggression can have negative consequences for both the perpetrator and the victim (Banks, 1997). When a child becomes a victim of direct aggression, this can have multiple consequences on their further development, such as lower psychological well-being and poor social adjustment (Rigby, 2003). The same is relevant for indirect aggression: intimidation is usually present when a child develops a low tolerance of frustration due to their home situation, which can have a negative impact on their life (Mada, 2013). The differentiation between these two different types of aggression is important because there are observable differences in the expression of aggression in boys and girls (Lagerspetz et al., 1988). Finding gender differences in the effects of parental divorce on aggression can aid in its prevention and treatment through targeting the type of aggression most often displayed by this age group.

A recurrent finding states that boys exhibit higher levels of direct aggression when compared to girls, whereas girls have been found to exhibit higher levels of indirect aggression in comparison to boys (Baron & Richardson, 1994). Identical results were found in a study conducted for 15-year-olds boys and girls (Bjorkqvist et al., 1992). These results could be due to direct aggression being considered gender-role inappropriate for girls (Richardson & Green, 1999). Another study showed that 11–12-year-old girls were seen as more indirectly aggressive than boys of that same age (Lagerspetz et al., 1988). Also, girls tend to evade aggression, while boys show more defensive reactions (Spigelman et al., 1991). However, gender differences in indirect aggression are not consistently reported in the literature (Card et al., 2008). Furthermore, there is evidence that the reactions of boys to parental divorce are different from those of girls (Aro & Palosaari, 1992). Having divorced parents is a greater conflict for girls in comparison to boys as they are more influenced by a divorce because girls have more difficulty adjusting and adapting to a new living situation (Aro & Palosaari, 1992). Studies have shown that adolescent boys of divorced parents show more aggressive behavior problems than girls, while girls showed higher problems in self-esteem and intimate relationships (Aro & Palosaari, 1992). Put differently, girls and boys might be affected by parental divorce differently and on different aspects of their psychological functioning.

Even with all the extensive research, it is difficult to measure whether and to what extent a child will be influenced by the divorce of their parents. One important factor is parental conflict, which can be described as a disagreement between parents, which leads to more or less interaction between them (Goeke-Morey et al., 2007). Children who directly experience parental conflicts, violence, or abuse will have greater difficulty with their mental health and self-esteem than children whose parents were divorced without parental conflicts (Amato & Afifi, 2006). On top of that, research has shown that the well-being of children with

parental divorce and parental conflicts was significantly lower than the well-being of children with parental divorce that did not experience parental conflicts (Amato & Afifi, 2006).

Additionally, prior research showed that children with parental divorce had lower well-being and showed more aggression than children without parental divorce (Aro & Palosaari, 1992).

Even though there is evidence for a moderating role of gender in the relationship between parental divorce and maladaptive behavior, no study has specifically looked into the moderating role of gender in the relationship between parental divorce and direct and indirect aggression. Considering the evidence mentioned above, as well as evidence showing higher levels of direct aggression among boys and of indirect aggression among girls (Baron & Richardson, 1994), the expectation can be raised that the displayed intensity of each type of aggression (direct and indirect), as a result of parental divorce stress, may vary for both genders.

To examine the above, three research questions were formulated:

- 1) Is there a relationship between parental divorce and direct/indirect aggression?
- 2) Is there a relationship between gender and direct/indirect aggression?
- 3) Is the relationship between parental divorce and direct/indirect aggression the same for boys and girls?

Based on previous research, the following hypotheses were formulated for each research question accordingly:

- 1) Children with divorced parents show higher levels of direct and indirect aggression than children without divorced parents.
- 2) Girls will show higher levels of indirect aggression in comparison to boys, whereas boys will show higher levels of direct aggression in comparison to girls.

3) The relationship between divorce and direct aggression will be stronger among boys than among girls, whereas, the relationship between parental divorce and indirect aggression will be stronger for girls than for boys.

Studies have shown that physical aggression declines with age (Tsorbatzoudis et al., 2013). For instance, it was shown that children in preschool display higher levels of aggressive behavior throughout the year than older children (Sinclair et al., 1994). This implies that the older children get, the less aggression they display. Taking into account the relationship between aggression and age, the present study used age as a control variable in order to not confound the results of this study.

The current study strives to provide more information on how parental divorce might impact children and whether these effects depend on gender. Besides, knowing more about whether and how divorce impacts the type of aggressive behavior manifested by boys and girls differently, it can allow us to focus on preventing or reducing the type of aggressive behavior that is more prominent among each of the two genders. This paper contributes to the current literature by expanding what we know about direct and indirect aggression. Practitioners within the field of psychology will learn more about aggression types between the different genders, this will lead to better recognition of problems as well as better treatment methods.

## **Method**

### **Participants**

The data used for this research came from the longitudinal cohort Study on Personality, Adjustment, Cognition, and Emotion II (SPACE II). SPACE II is a Dutch cohort study that focuses on the psychosocial development of adolescents from the general population. SPACE II was conducted in agreement with the Code of Ethics of the World

Medical Association (Declaration of Helsinki) and approved by the Institutional Review Board of Tilburg University. Approximately 900 adolescents between the ages of 12-18 were recruited at four different high schools in the Netherlands (i.e., Tilburg, Rotterdam, Dordrecht, The Hague). However, 31 of these participants had not answered the questions of either aggression, gender, or age and were thus excluded from the study. Out of the remaining 869 adolescents, 53% (N= 461) were boys and 47% (N= 408) of them were girls. Of these 869 adolescents, 21% (N= 183) had experience with parental divorce. In total, this study consisted of three annual waves. However, as the present study was correlational, it will only make use of the data from the first wave, which took place in 2014.

## **Measures**

### ***Divorce***

Whether or not participants experienced parental divorce was assessed with the *Life Events Questionnaire* (Garnefski & Kraai, 2001). This questionnaire contained twelve questions regarding negative life events that young adults may or may not have experienced in their life. These included events such as; divorce of parents, physical illness, suicide attempts, alcohol or drug abuse. For this study, only one question from this questionnaire was used; *are your parents divorced?* For this question, three answer options were provided: 1 = *no*, 2 = *yes-longer than a year ago*, and 3 = *yes-this year*. ANOVA post hoc comparisons revealed no significant difference in direct aggression between participants whose parents were divorced for shorter and those whose parents were divorced for longer than a year,  $MD = .1$ ,  $SE = .12$ ,  $p = .27$ . A significant difference between those two groups in indirect aggression was observed, with *mean difference* =  $.26$ ,  $SE = .1$ ,  $p = .21$ . Considering these findings, as well as the fact that the study would gain increased power if the two groups of participants were merged, it was decided to merge participants whose parents were divorced for shorter and longer than a year into one group.



### ***Direct and Indirect Aggression***

To assess the two types of aggression, the *Direct and Indirect Aggression scales (DIAS)* was used (Björkqvist et al., 1992). This questionnaire consisted of 17 questions, with 11 questions assessing indirect aggression and 6 questions assessing direct aggression. One of the statements to test indirect aggression was: *I often make a fool out of someone*. A question measuring direct aggression was, for example, *I tend to take objects from others*. A 4-point Likert scale was used (1 = *never*, 2 = *sometimes*, 3 = *often*, 4 = *very often*). The minimum score was 1 and the maximum score was 4. In this case, the higher the overall score a participant had, the higher the level of reported aggressive behavior. For the items measuring indirect aggression, Cronbach's alpha was 0.90, and for the direct aggression items, Cronbach's alpha was 0.85. Thus, good internal consistency reliability was found for the subscales measuring direct and indirect aggression (Cortina, 1993). In previous studies on adolescent community samples using *DIAS*, a Cronbach's alpha of .89 was found for the direct aggression subscale, and .75 for the indirect aggression subscale (Björkqvist et al., 1992), which are lower than those of the present study.

### **Procedure**

Before initiating the study, school principals were asked for permission to collect data at their schools. Next, parents were notified about the nature of the study by information letters in which the purpose and procedure of the study were described. *SPACE II* utilizes the commonly used passive informed consent procedure for parents. Details about the study were explained in the information letter, and parents were allowed to object to their children's participation within 2 weeks after receipt of the information letter. Finally, adolescents were informed about the content of the study and were asked whether they wanted to participate. Participants were able to withdraw from the study at any time, without having to provide a reason for their withdrawal. In 2014, data collection took place during school hours, under the

supervision of trained bachelor's and master's psychology students. Questionnaires were filled out digitally or on paper during school hours under the supervision of trained psychology (under)graduate students. Participants could spend one school hour (50 min) on the questionnaire. Questionnaires were conducted in an examination setting to ensure privacy. Moreover, participants were informed that data would be processed, coded, and stored anonymously and that no one besides the researchers had access to the data.

### **Statistical analysis**

For all the analyses of the present study, the program IBM SPSS Statistics version 26 was used. Hierarchical regression analysis was performed to answer the research questions. In step 1 of the hierarchical regression, an interaction variable of parental divorce status and gender was created. This was entered in step 2, on top of age, gender, and parental status. A separate hierarchical regression was conducted for direct and indirect aggression as dependent variables, but the independent variables included in steps 1 and 2 were the same for both analyses. An association between age and aggression was taken into account by including age in the analyses as a control variable.

## **Results**

### **Robustness checks**

Prior to conducting the hierarchical regression analyses, the data was inspected for missing values and outliers. In total, 31 participants did not fill out their gender, aggression, or age and were removed from the analysis. Preliminary checks for violation of the assumptions of hierarchical regression analysis showed a violation of the assumption of normality, both in the analysis with direct aggression as a dependent variable and that with indirect aggression as a dependent variable. To address this issue, bootstrapping with 5000 samples was used as an estimation method. Bootstrapping allows a robust estimation when a normally shaped sampling distribution cannot be inferred (Field, 2009, pp.261). Residuals, Cook's, and

Mahalanobi's distance values pointed to the existence of outliers. The analyses were performed both with and without the indicated outliers and the results were the same in terms of statistical significance of the effects. The only exception was that the control variable age was not a significant predictor of direct or indirect aggression in any of the steps of the hierarchical regressions that were performed after removing the outliers. Hence, it was decided that there was no sufficient reason to exclude the outliers from the analyses.

## Descriptive statistics

**Table 1**

*Descriptive Statistics and Bivariate Correlations of Age, Direct and Indirect Aggression.*

Variable	N	M	SD	Correlations		
				1	2	3
1. Age	869	13.87	1.1	-	.07*	.09*
2. Direct Aggression	869	1.45	.56	-	-	.64**
3. Indirect Aggression	869	1.36	.47	-	-	-

\* $p < .05$ .

\*\*  $p < .01$ .

In Table 1, the descriptive statistics and correlations between all study variables are reported. None of the aggression scales were normally distributed. Thus, the reported correlations were computed using Spearman's rho instead of the Pearson correlation coefficient (Field, 2009). Age was positively and significantly associated with the direct and indirect aggression subscales. Older age was associated with higher levels of (direct and indirect) aggression. The direct and indirect aggression subscales were positively, significantly, and strongly correlated with each other,  $r = 0.64$ ,  $p < .01$ . In other words, higher levels of direct aggression were associated with higher levels of indirect aggression. Independent samples  $t$ -tests showed significant differences between boys and girls in direct aggression scores,  $t(853, 541) = 3$ ,  $p < .01$ ,  $t(857) = 4.25$ ,  $p < .01$ , with boys reporting higher

levels of direct aggression than girls. No significant difference between boys and girls was found in indirect aggression  $t(857) = 1.78, p = .075$ .

### Moderation Analyses

Hierarchical regression analyses were conducted to investigate whether parents' divorce status, gender, and their interaction were significantly associated with direct and indirect aggression. Age was used as a control variable. Boys were used as a reference group in the dummy variable gender, and non-divorced parents' status was used as a reference group in the dummy variable parental divorce status.

**Table 2**

*Hierarchical Multiple Regression Analyses with Age, Parents' Divorce Status and Gender as Predictors, and Direct and Indirect Aggression as Outcome Variables*

Predictor	Type of Aggression											
	$\Delta R^2$	Direct					Indirect					
		$\beta$	SE	CI		Partial $\eta^2$	$\Delta R^2$	$\beta$	SE	CI		Partial $\eta^2$
			LL	UL					LL	UL		
Step 1	.04***						.03***					
Constant		.87***	.25	.39	1.36			.87***	.20	.47	1.26	
Age		.03	.02	-.00	.07	.06		.02	.01	.00	.05	.06
Parental Divorce		.17***	.05	.08	.3	.12		.16***	.04	.08	.23	.14
Gender		-.16***	.04	-.24	-.09	-.15		-.06	.03	-.12	.00	-.06
Step 2	.00						.00					
Constant		.87***	.25	.38	1.36			.85***	.21	.00	.51	
Age		.03	.02	-.00	.07	.06		.02	.01	.00	.05	.06
Parental Divorce		.17***	.05	.08	.3	.12		.18***	.05	.07	.28	.11
Gender		-.15	.12	-.39	.08	-.05		.00	.1	.2	.19	.00
Interaction		-.00	.09	-.2	.17	.00		-.04	.08	-.2	.11	-.02
Total $R^2$	.04***						.03***					

*Note.* Boys were used as a reference group of the Gender, and Non-Divorced was used as a reference group of the variable Parents' Divorce Status. Interaction = Gender X Parental Divorce.

\* $p < .05$  \*\*\*  $p < .001$

Table 2 presents the results of the analyses. The model in step 1, with age, gender and parental divorce status explained a significant part of the variance in direct and indirect aggression,  $F(3,854) = 11.63, p < .01$  and  $F(3,854) = 7.73, p < .01$ , respectively. Parental divorce was found to be a significant predictor of both direct and indirect aggression. Children whose parents were divorced reported higher levels of both direct and indirect aggression in

comparison to children whose parents were not divorced. The effect size was moderate to large, with approximately 11% of the variance in direct aggression being explained by divorce. The same effect was higher for indirect aggression, with 13% of the variance being explained by divorce. Gender was a significant predictor of direct but not of indirect aggression; boys reported significantly higher levels of direct but not indirect aggression in comparison to girls. The effect size for direct aggression was large, with approximately 14% of the variance being explained by gender. For indirect aggression, the effect size was moderate, with 6% of the variance being explained by gender.

Next, the interaction between gender and divorce status was added at step 2. The model included age, parents' divorce status, gender, and the interaction between gender and parents' divorce status. The model did not explain more of the variance in direct and indirect aggression in comparison to the model without the interaction term. However, the model as a whole explained significant part of the variance in direct and indirect aggression  $F(4,853) = 8.71, p < .01$  and  $F(4,853) = 5.87, p < .01$ , respectively. The effect of parental divorce status on direct and indirect aggression did not depend on gender. In other words, the positive association of parental divorce with direct and indirect aggression is similar for boys and girls. The effect size was small for both direct and indirect aggression with 0.2% of the variance in direct and 2% in indirect aggression being explained by the interaction between gender and parental divorce status.

## **Discussion**

Responding to the gap in the literature, the present study examined whether parental divorce is associated with direct and indirect aggression and whether this association is different for boys and girls.

In accordance with the first hypothesis, a relationship was found between parental divorce status and direct as well as indirect aggression, with children of divorced parents

reporting higher levels of both direct and indirect aggression. These findings are in line with those of previous research that found higher levels of aggressive behavior among children whose parents were divorced versus those whose parents were not divorced (Averdijk et al., 2012; Salahian et al., 2021). Furthermore, a relationship was found between gender and direct but not indirect aggression; boys reported higher levels of direct aggression in comparison to girls, therefore hypothesis 2 is partially supported. The finding that boys show higher levels of direct aggression, in comparison to girls, is in line with previous research (Baron & Richardson, 1994). The levels of reported indirect aggression were not different between the two genders. The present results contradict the findings of previous research which showed higher levels of indirect aggression among girls than among boys (Bjorkqvist et al., 1992; Lagerspetz et al., 1988). This contradiction could be attributed to the way aggression was assessed, namely with self-reports. It is noteworthy that meta-analyses have found that self-reports yield higher levels of indirect aggression for boys, compared to when aggression is assessed by teachers or parents (Archer, 2004; Card et al., 2008). Thus, one could speculate that another method of assessment could have yielded different outcomes. Another plausible explanation could be that there is a stigma amongst gender and how each gender should act and behave. Therefore, direct aggression can be seen as gender-inappropriate for girls (Richardson & Green, 1999). This could affect the outcomes of the results when girls answer for social desirability. Furthermore, it is worth noting that although gender differences in direct aggression have been reported consistently in the literature, this is not the case with indirect aggression, with some studies finding higher levels of indirect aggression among girls, others among boys, and others no gender differences (Card et al., 2008).

Contradicting with hypothesis 3, this study showed that gender did not moderate the relationship between parental divorce status and direct and indirect aggression. In other words, the relationship between divorce status and direct aggression was not stronger for boys

than for girls, as it has been hypothesized. Both girls and boys with divorced parents reported higher levels of direct and indirect aggression compared to those without divorced parents. These findings are not in line with the expectations based on research that found that the effect of parental divorce on adult's intimate relationships depends on gender (Christensen & Brooks, 2001). Subsequently, they are incongruent with the expectations based on research showing direct aggression as a more prominent way of externalizing stress and frustration among boys than among girls (Baron & Richardson, 1994). The way aggression was assessed in the present study could also account for the inconsistency of the findings with those of previous research; as mentioned above self-reports of indirect aggression tend to yield higher levels than peer assessment for boys (Archer, 2004; Card et al., 2008). Moreover, in terms of direct aggression, a meta-analysis presented self-reports as yielding smaller gender differences compared to, for instance, peer reports (Card et al., 2008). Under-reporting of one's direct aggressive behavior and over-reporting one's indirect aggression may account for the absence of a moderating effect of gender on the effect of parental divorce on aggressive behavior in the present study (Card et al., 2008).

In sum, the present findings are in line with the first hypothesis, partly in line with the second hypothesis and they contradict the third hypothesis.

When interpreting the results of the present study, several limitations should be taken into account. Direct and indirect aggression were assessed with self-reports, which are subject to memory errors, social desirability, and recall biases (Morling, 2017). For instance, it is possible that children cannot accurately remember their behavior or that they underreport the instances when they behaved aggressively. Furthermore, children with divorced parents were treated as an undifferentiated group. However, the effects of divorce on aggression (and a potential moderating role of gender) might be different depending on various factors, like the pace and the nature of the changes that children undergo after parental divorce and the extent

to which children are supported through these processes (Flowerdew & Neale, 2003). Last, participants in the present study were pupils in higher levels of secondary education in the Netherlands and were residents of big cities. It needs to be investigated whether these results can be generalized to children of other educational levels and from rural areas. There is evidence that suggests that children in urban areas exhibit more externalizing behavior than children in rural areas (Hope & Bierman, 1998). Hence, one could speculate that among children in rural areas different (externalizing) behaviors other than aggression, could be more prominent in response to parental divorce. In addition, since stereotypical ideas about gender are more prevalent in rural than in urban areas (Radhika, 2019), the findings of the moderating effect of divorce could be different among children in rural areas. For instance, social structures in rural societies could encourage girls to exhibit more indirect aggression.

The presented study adds to the currently existing literature in a multitude of ways. In contrast to the previously existing literature, this study looked at the relationship between divorce and different types of aggression in non-clinically referred children rather than adults. The feature of dividing aggression into direct and indirect aggression is also unique within the currently existing literature. Moreover, this study looked specifically at gender differences, whereas previous studies mostly focused on overall aggression due to divorce. This study further showed the necessity of the distinction between direct and indirect aggression when assessing aggression as well as the central need to take possible gender differences into account, especially during research regarding experiencing a divorce and aggression. Due to the large sample size, the statistical power increases, which is necessary in order to increase the ability to find an existing effect. Also, this study controlled for age which causes less variation in variables creating a greater chance of finding an existing effect.

Since there is no previous research investigating the link between direct and indirect aggression in relation to divorce, the present study sets the stage for future research on the



relationship between parental divorce, gender, and direct and indirect aggression. Future research can investigate topics such as nature, number, and pace of changes following divorce, as well as parental conflict before, during, and after divorce, and how they can affect the relationship between divorce and direct and indirect aggression. Evidence has shown that the conflict between parents rather than parental separation as such predicted negative emotional responses in children (Hashemi & Homyuni, 2017). In addition, when changes in income are taken into account, parental divorce ceases to be a significant predictor of school dropout. Parental income, as well as parental age, can influence how a child is affected by divorce (Hodges et al., 1979). The less income and the younger the parents are, the higher chance of maladjustment and more of an impact the divorce will have on the children (Hodges et al., 1979). Future research is needed to investigate whether these findings generalize to aggressive behavior. Furthermore, other methods, which are less sensitive to biases can be applied to assess aggression, like parent and teacher reports. Repeated assessments of aggression following parental divorce can be applied to study how aggressive behavior of children develops following divorce and the changes associated with it. Furthermore, repeated assessments can eliminate recall biases. Moreover, future research is warranted to examine the risk factors of aggression among individuals who are experiencing parental divorce. The investigation of protective factors is of equal importance because a family is dynamic, and in every family and separation different situations can occur, the processes that affect the child can differ from each other. Multiple risk factors can influence to what extent a child is affected by a divorce, for example, parental conflict, which most likely will have a negative effect on the child. However, there are also protective factors, such as parental responsiveness, which can increase adaptation to new situations for children (Cicchetti, 1993). One of the most important events that can influence how a child responds to a divorce is the

level of conflict between the parents (Grych & Fincham, 2001). Therefore, parents should maintain a civil relationship in order for the child to be as little affected by the divorce.

There are some noteworthy implications of the present research. On a theoretical level, the present findings imply that parental divorce can be associated with higher levels of both direct as well as indirect ways of aggressive behavior. This further implies that, on a practical level, since children of divorced parents are more likely to express both overt behavior of (threatened) physical harm and covert behavior aimed to cause social harm, parents, teachers, and (mental) health providers working with those children should monitor signs of such behavior and intervene to prevent or reduce negative consequences. There are initiatives, such as, Divorce Care for Kids (DC4K) (Help your children heal from the pain of divorce, 2020) as well as Buro Onderscheiden (Buro Onderscheiden, 2020), which focus on helping children whose parents are going through a divorce. DC4K focuses mostly on children between the age of 5-12 and they organize weekly activities for children to feel safe and to create a fun place during these life-changing events. Buro Onderscheiden focuses mostly on maintaining as well as repairing a good relationship between parents and the child once their parents get a divorce. In order to repair and maintain this relationship, Buro Onderscheiden has sessions with the children together with their parents, or conversations alone with the children in order to create a safe space. Communication should be present, both between the parents and the child. The lack of communication between parents can be associated with attachment disorganization for children (Solomon & George, 1999). Luckily, the two mentioned initiatives focus on this communication to establish a safe environment for the child. Although these are good initiatives that can help children as well as parents that are going through a divorce, it has not been proven that these initiatives decrease the level of direct or indirect aggression in children.

The findings of the present research are of added value in order to be able to alert parents, teachers, and (mental) health providers in being watchful of the reactions of children due to the changes and challenges that are associated with the breaking of their parents' relationship. Tailored interventions could prevent the increased aggressive behavior that might be related to parental divorce.

In conclusion, the present study provides further evidence that children of divorced parents are more likely to exhibit direct as well as indirect aggression when compared to children who have not experienced parental divorce. Moreover, the present study sheds further light on the path connecting parental divorce with aggression by showing that gender does not moderate this relationship. Future studies, with a repeated measures setup, different or more assessment methods, and a more heterogeneous sample, can examine other moderators of this relationship. It is emphasized that characteristics of the divorce (e.g., high versus low conflict), subsequent changes (e.g., in income), and individual characteristics of the child (e.g., protective and risk factors) should be taken into consideration when studying parental divorce and designing interventions to prevent or reduce its negative consequences.

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