

**Examining the relationship between witnessing
inter-parental conflict as a child and aggressive
behaviour in adulthood.**

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Abstract

Objective: Much research that looks at the effects of witnessing conflict between parents focuses around children, but, can witnessing inter-parental conflict as a child influence a person's behaviour in adulthood? The current study investigates whether witnessing inter-parental conflict can cause a person display more aggressive behaviour as an adult. Furthermore, the study looks at the differences between aggression and gender, age and parents' current relationship status.

Method: 54 males and 119 females (N=173) took part in a questionnaire which was administered online. The questionnaire included a background demographic questionnaire, a revised version of the Grych, Seid & Fincham's Children's perception of Inter-parental conflict scale and the Buss-Perry aggression scale.

Results: There was a weak negative correlation found between inter-parental conflict and aggressive behaviour. A Mann-Whitney U test found that males display more aggression than females, and a one-way between groups ANOVA found aggressive behaviour decreased with age. A Kruskal- Wallis test showed no difference between aggressive behaviour and parents current relationship status.

Conclusion: Findings from this study suggest that witnessing higher levels of inter-parental conflict as a child is not associated with higher levels of aggression in adulthood. However, Further research should be conducted with regards to the effects of witnessing inter-parental conflict can have on an adult.

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Introduction

Parents are the most prominent role models in a child's life and can influence how they behave. Inter-parental conflict, which is also sometimes known as marital conflict, refers to arguments or disagreements which arise between parents. Inter-parental conflict can be viewed as a single construct however, it has been classified into two different types: Covert, which is passive aggressive conflict and overt, which is verbal and physical conflict (Buehler et al., 1998). After becoming a parent, it has been suggested that levels of conflict between couples increase (Gottman & Notarius, 2002). In addition to this, it has been found that child related topics are a frequent cause of arguments among parents (Papp, Cummings & Goeke – Morey, 2009). Statistics have suggested that more than ten million U.S children witness physical forms of aggression between their parents on a yearly basis (Straus & Schwarz, 1992). At least one million Australian children are exposed to inter-parental conflict annually (Westrupp et al., 2015). In addition to this, Carlson (1984), states that based on “The National Family Violence Survey”, 3 to 4 million children (between the ages of 3 to 17) are exposed to inter-parental physical violence annually in the United States. Inter-parental conflict has been viewed as a major stressor for children which affects them in their everyday life (Grych & Fincham, 2001).

Lewis, Siegal and Lewis (1984) asked children to rate events which make them feel bad out of a list of twenty events. Based on the results from this study, children rated “watching their parents fight in front of them” as the third worst event that makes them feel bad, with parents separating being the worst event. However, some research focused around whether parents believed their children were affected by inter-parental

conflict. For example, a study conducted with 3284 fathers who were being charged with domestic violence found that two thirds of the fathers stated that although their children were exposed to inter-parental conflict they did not actually believe they were affected by it, with one-third of the fathers stating they did believe it affected their children (Salisbury, Henning and Holdford, 2009). However, with this study, it should be taken into account that the fathers who participated were being criminally charged and therefore, they may not have wanted to state whether conflict affected their children as it could have implications for them in court. Similarly a study conducted surrounding inter-parental violence and conflict, found that particularly biological fathers are somewhat aware of the effects this form of conflict has on their children, with fathers displaying a slightly greater concern for the effects it has on girls as opposed to boys (Rothman, Mandel & Silverman, 2007).

In contrast to the beliefs parents may hold about the effects of inter-parental conflict on their children, a body of research suggests that any form of conflict can affect a child's development in many ways from areas such as school to their behaviour. One study required adolescents and parents to keep a daily diary reporting conflict within the home for two weeks. This study found an association between conflict and negative moods, as well as daily problems in school (Timmons & Margolin, 2015). Longitudinal Research has also suggested that inter-parental conflict can have a long term effect on children's academic achievements. Harold and colleagues (2007) found a link between witnessing conflict and child's performance on standard academic tests (English, maths, science). Similarly, inter-parental conflict affects parenting which in turn affects children's development which includes their academic performance (Fauber et al., 1990). Zemp, Bodenmann and Cummings (2014) took a different

approach to assessing the effect of marital conflict. By measuring skin conductive reactivity levels, this study found marital conflict to have a negative effect on children's attention, which in turn could affect their academic performance.

Much of the research surrounding the effects of parental conflict in relation to children, centre around children's adjustment emotionally, behaviourally and socially. Child psychopathology has been found to be affected by inter-parental conflict (Emery, 1982). Internalising problems such as anxiety, depressive moods and worry are the most common form of psychopathology in children (Brock & Kochanska, 2016). Externalising problems in children revolve around their behaviour towards the environment. A recent longitudinal study found that self-reported child involvement in inter-parental conflict and violence led to children having more externalising and internalising problems (Jouriles et al., 2014). However, the study did not explain how inter-parental conflict was linked to these problems.

Different theories on how behaviours such as aggression develop have been derived throughout the years. Aggression has been defined as a behaviour that carries the intention to hurt someone, something or oneself (Rohner, 1976). In relation to the development of aggression, Bandura, Ross and Ross conducted the Bobo doll experiment in 1963. This experiment involved children being separated into two groups who were then shown cartoons; one group watched violent cartoons while the other watched non-violent cartoons. Following this, both groups of children were left to play with a Bobo doll where their behaviour was observed. It was found that the children who had been shown the violent cartoons acted in a more violent way

towards the Bobo doll compared to the group which had been shown the non-violent. These results suggested that children can learn behaviours through observation, which led to the Social Learning Theory. Bandura proposed the Social Learning Theory (1997) in which it was suggested that behaviours can be learned through direct observation. In addition to this, while a person learns a behaviour through direct observation, they simultaneously observe the consequences or rewards associated with the behaviour (Bandura, 1997). According to Anderson and Cavallaro (2002), parents and other family members serve as role models for children from young age. Therefore, it can be suggested that based on the Social Learning Theory, children have the ability to learn behaviours based on how their parents behave in front of them.

Based on the idea of the social learning theory, exposure to inter-parental conflict can be stressful for children and have negative effects on their behaviour as it can increase children's distress, anger and aggression (Cummings et al., 1989). Where a child is concerned, conflict of any kind can influence their development within different areas and ages of their lives. Research found an increase of aggression in two-year-old children among peers when they were subjected to conflict around unfamiliar adults (Cummings, Iannotti, & Zahn-Waxler 1985). A diary study conducted with children between the ages 8 to 16, required parents to fill out a daily diary on their children's behaviour for fifteen days. This study found that being exposed to destructive forms of conflict increased the likelihood of aggression in children whereas being exposed to constructive forms conflict, decreased the likelihood of this behaviour in children (Cummings, Goeke-Morey & Papp, 2004). In addition to this, Ferguson, Miguel and Hartley, 2009, carried out a study on the influence of media, peers, depression and

family on children and found that, from a sample size of 603 children aged between 10 and 14, inter-parental conflict was one of the main and consistent cause of parent-reported youth-aggression. Youth who display aggression tend to come from families where there is a lot of aggressive behaviour (Lefkowitz, Eron & Walder, 2013). A meta-analysis also found that there was a link between direct aggression and externalising behaviours (Card et al., 2008).

Research indicates that family patterns are critical in the development of aggressive behaviour in children (Singer & Singer, 2014). Inter-parental conflict is a stressor to children and can leave parents emotionally drained which in turn means they cannot parent effectively (Osborne & Fincham, 1996), leading to higher levels of aggression among children (Davies and Cummings, 1994). Parents in hostile conflict environments may use harsher forms of discipline on their children, such as yelling, spanking, and, threatening (Krishnakumar & Buehler, 2000). Shelton and Harold (2008) also found that inter-parental conflict can influence child-parent relationship, for example, a parent may not be able to support their child emotionally. In addition to this, it was found that children can view this lack of relationship as parental rejection (Cox, Paley, & Harter, 2001).

Shelton and Harold (2008) found that mother-child rejection can lead to externalising problems within the child, and, father-child rejection can lead to internalising problems within the child. Inter-parental conflict has also been associated with lower levels of parental monitoring and higher levels of parent-child conflict (Krishnakumar, Buehler & Barber, 2003). In support of all these findings, Buehler

and Gerard (2002) also found that inter-parental conflict was positively associated with the use of harsher forms of discipline, reduced levels of parental involvement and with frequent parent-child conflict. In addition to these findings, harsh discipline and low parental involvement have been positively associated with the development of anti-social behaviour among youths (Patterson, DeBaryshe & Ramsey, 1989).

Findings based on family dynamics and parenting are relevant when researching inter-parental conflict and the effects it can have on a child's behaviour. This is because inter-parental conflict has been found to affect parenting and parenting has been found to have an effect on different behaviours developing within a child. For example, Paternoster and Triplett (1998) suggested that parental supervision and criminal behaviour were stuck in a never-ending loop: weak parental supervision can lead to delinquency in adolescents which can then have a further effect on parental supervision. If a parent is distracted by inter-parental conflict, it can lead to the child having minimum supervision which in turn could lead to the development of anti-social behaviour and possibly aggressive behaviour. Therefore, these findings indicate the different ways in which inter-parental conflict can affect a child's life and development. Furthermore, based on the social learning theory, it is suggested that a child can learn certain behaviours from witnessing conflict between their parents.

Much research indicates that it is better for a child to be in a two-parent home. Unfortunately, though, due to issues such as marital conflict, being in a two-parent home can sometimes be more damaging to a child (Kelly, 2004). Much research has indicated that children from separated yet conflict free families are less likely to have

problems than children from non-separated families with conflict filled environments (Emery, 1982). However, despite the fact that being in a one parent home could be better for a child as opposed to a two parent home, research has found that it is not marital status that affects the child but the levels of conflict, and if conflict is still ongoing following divorce, the child could still be affected (Forehand et al., 1990). Research has been conducted to see whether a child functions better in school following the separation of their parents. One study carried out research on three groups; adolescents whose parents had high levels of conflict prior to divorce, and adolescents whose parents had low levels of conflict prior to divorce, adolescents from intact families. Results showed that adolescents from high level conflict homes were functioning at a lower level in school (Long et al., 1988). These results demonstrate how conflict can affect a child.

The idea of aggression displayed in children and adolescents following divorce should be considered. Longitudinal research found that one-year post divorce, children displayed more dependent behaviour and acted out more which was measured through observation of their play and social interactions. This study also demonstrated how there can be gender differences as it suggested that this behaviour was more enduring in males rather than females (Hetherington, Cox, Cox, 1979). Other research has also concluded that boys' behaviour is affected more by divorce than girls (Block, Block & Gjerde, 1986).

Gender differences in relation to aggression has also been explored. A study which investigated gender differences on 167 male and female school students aged 11 to

12, found girls use more indirect forms of aggressive behaviour as opposed to boys who use more direct forms (Lagerspetz Björkqvist & Peltonen, 1988). Gender differences have also been found in relation to internalising and externalising problems and inter-parental conflict; Osborne and Fincham (1996) found that inter-parental conflict had a direct association with externalising and internalising problems in boys and that it only had a direct association with internalising problems in girls. However, in contrast to these findings, one study found an association between inter-parental conflict and externalising problems in girls only (Bair-Merritt et al., 2015). Kinsfogel and Grych (2004) conducted a study on 391 adolescents, 205 females and 186 males between the ages of 14 and 20, in relation to conflict between their parents and aggression in their own romantic relationships. This study found that boys tend to be more aggressive than girls. It has also been reported that parental disagreements have been directly linked to not only aggressive behaviour in boys and girls aged three to eight but also to anxiety in boys (Dadds & Powell, 1991). A meta-analysis also found there was a sex difference between males and females for physical aggression, with males displaying more physical and verbal aggression than females and females were found to display more indirect forms of aggression than males (Archer, 2004).

As well as gender differences being investigated, some studies have looked at age differences in aggressive behaviour. For example, one study looked at aggressive driving behaviour and different age groups, ranging from age 18 up to 55 and older. Results found that this form of aggressive behaviour decreased with age (Wickens et al., 2011). A study conducted on Spanish high school students found that younger students aged 14 to 15 years old displayed higher levels of aggression than students

aged 16 to 17 years old (Toldos, 2005). In relation to age and gender, one study found that boys displayed more forms of physical and verbal aggression than girls and also that younger adolescents (aged 14-15) showed higher rates of violent behaviour than older adolescents (aged 16- 17) (Hyde, 1984).

Research surrounding inter-parental conflict and particularly aggression mainly focuses on children, there is limited research on whether the effects of inter-parental conflict carry onto adulthood. A huge limitation that has to be considered in these types of studies is the way in which inter-parental conflict is measured. Due to the amount of studies carried out on investigating this form and conflict in relation to children, many of the reports of the level of conflict are self-reported by parents (for example, see: Brock & Kochanska, 2016; Jouriles et al., 2014). This could lead to an issue of there being bias involved as parents may not wish to admit the amount of conflict to which their child has been exposed. However, not every study was conducted this way, for example, in addition to having parents report the level of conflict their child perceived, Grych Seid, and Fincham (1992) also devised a children's perception of inter-parental conflict which required children to report the degree to which they witnessed conflict. Also a more useful form of measuring would be diary studies, particularly when measuring something like behaviour and conflict, as it allows researchers to understand in more depth what is occurring from the participant's point of view.

However, some studies have been centred around how exposure to inter-parental conflict as a child can have effects in adulthood by using retrospective measures (for

example see: Elam et al., 2016). In relation to adulthood, it has been found that exposure to conflict within the family can lead to substance abuse in late adolescence and early adulthood (Skeer et al., 2009). Also, a longitudinal study on 1265 young adults in New Zealand required participants to reflect on the amount of inter-parental conflict witnessed as a child and also the type of conflict. Results found that people who reported high levels of exposure to conflict had adjustment problems in early adulthood, which included mental health problems, engaging in substances abuse and in criminal behaviour (Fergusson & Horwood 1998). Henning and colleagues (1997) found that people who witnessed inter-parental conflict as children, had higher psychological distress as adults in comparison to people who did not witness inter-parental conflict. A retrospective study on 164 college students found that students that witnessed conflict or violence growing up were more anxious than those who did not, and that, women in particular displayed more depressed moods and aggressive behaviour (Forsstrom-Cohen & Rosenbaum,1985). Consistent with these findings, another study found that memories of inter-parental conflict in childhood were significantly related to psychological distress in adulthood (Cusimano & Riggs, 2013).

As previously stated, research conducted into children witnessing inter-parental conflict has suggested that conflict can have long-term implications on a child's development (Kouras, Cummings & Davies, 2010). Therefore, the rationale for the current study is based on the fact that research is limited in relation to inter-parental conflict and the effects it can have adulthood particularly in relation to behaviour. Furthermore, research has also shown that males tend to be more aggressive than females (Kinsfogel and Grych, 2004). However, as discussed above, some studies

demonstrated that females display higher forms of indirect aggression (See: Lagerspetz, Björkqvist & Peltoner, 1988; Archer, 2004). Therefore, aggression differences between males and females is still a highly prevalent topic as many studies yield different results and should be considered when conducting a study on aggression. It has also been found that inter-parental conflict can be a bigger risk factor to a child's adjustment than divorce (Grych and Fincham, 2001). Therefore, family lifestyle and parents' relationship status should be investigated to see if a child could benefit from their parents separating following the witness of conflict between them.

The current study aims to investigate if there is a relationship between inter-parental conflict and aggressive tendencies in adults, as there is a substantial amount of evidence that demonstrates how children's behaviour and development are affected, it is important to investigate adult behaviour. The current study aims to investigate gender differences in aggression, as there is evidence mentioned above indicating there is a difference between both genders. The study also aims to investigate if there is a difference in the level of aggressive behaviour displayed across age groups, as age could be a factor in relation to this form of behaviour. Also based on the evidence from studies on divorce, and in relation to family dynamic, the study aims to see if there is a difference in behaviour displayed in adults who come from parents who are separated as opposed to parents who are still together.

Therefore, the current study will be a retrospective based study that will require participants to reflect on the amount of conflict they witnessed as a child and

following that, will require them to answer questions on their own behaviour. This study will investigate four hypotheses in relation to aggression: (a) that higher levels of inter-parental conflict are positively correlated with higher levels of aggression in adults, (b) that there will be a difference in the amount of aggressive behaviour displayed by males and females, (c) that younger age groups display higher levels of aggression compared to older age groups, and, (d) that there will be a difference in the amount of aggressive behaviour displayed between individuals whose parents are separated or divorced and individuals whose parents are still together.

Method

Participants

Convenience and snowballing sampling techniques were used in order to obtain participants. 119 females and 54 males took part in this study (N=173). There were 66 participants between the ages of 18 and 25 years, 50 participants were between the ages of 26 and 35 years, and 57 participants were aged 36 years and over.

Design

The current study is primarily a correlational research design as the main hypothesis is investigating the relationship between a predictor variable, inter-parental conflict, and a criterion variable, aggressive behaviour. For hypothesis two the independent variable will be gender and the dependent variable will be aggressive behaviour. For hypothesis three the independent variable will be age and the dependent variable will be aggressive behaviour. For hypothesis four the independent variable will be parental relationship status and the dependent variable will be aggressive behaviour. This is a quasi-experimental study as the study is looking at relationships between an independent variables and a dependent variable, however, neither variables can be manipulated by the researcher.

Materials

For the purpose of this study, three questionnaires including a background questionnaire were used. The background questionnaire required the participants to

fill out basic information such as gender and age. Furthermore, they were required to state the relationship status between their parents (See Appendix B).

In order to assess inter-parental conflict, a revised version of The Children's Perception of Inter-Parental Conflict Scale (CPIC) was used (Grych, Seid & Fincham, 1992). The original and the revised version of the CPIC consists of fifty-one items which measures inter-parental conflict within nine different areas. These areas include: the frequency of conflict, the intensity, resolution following conflict, the content of disagreements, the child's coping efficacy, the child's self-blame, the division that occurs during conflict and also family stability. The scale requires participants to respond to statements about their parent's conflict levels by stating whether they are "true", "somewhat true" or "false".

The original version of this scale involves statements that are phrased in the present tense. Therefore, examples of statements would be "I never see my parents arguing or disagreeing" or "They may not think I know it, but my parents argue or disagree a lot". However, because this study needed a retrospective scale for the measure of inter-parental conflict, the language of the scale was revised and changed to past tense (See Appendix C). Examples of statements in the revised version would be "I have never seen my parents argue or disagree" or "They may not think I knew it, but my parents argued or disagreed a lot when I was younger". Therefore, based on these changes, a pilot study was carried out to ensure that the language used in this scale was still understandable. In relation to scoring the scale, overall there are twelve items which are reverse scored. To obtain total scores, participants responses are added

together, with “true” having a value of 1, “Sort of true” having a value of 2, and “false” having a value of 3. The higher the total score, the higher the levels of inter-parental conflict witnessed. This scale has been widely used in assessing inter-parental conflict from a child’s point of view (see: Cummings, Davies & Simpson, 1994; Kerig, 1996). This scale has also show good reliability in past studies, with each subscale having, on average, a Cronbach’s alpha higher than .60 in one study (Chan et al., 2011) and in the current study, the scale received an overall Cronbach’s alpha of .96.

Finally, to measure aggressive behaviour, the Buss- Perry aggression questionnaire (Buss & Perry, 1992) was used (See Appendix D). As the scale was not revised for this study, a pilot study was not conducted on this questionnaire. This scale measures four areas within aggression, which include: Physical aggression, verbal aggression, anger and hostility. There are twenty-nine items in total in this questionnaire. The questionnaire requires participants to select how characteristic a statement was of them. Participants had to choose from one of the following answers: “extremely uncharacteristic”, “somewhat uncharacteristic”, “neither uncharacteristic or characteristic”, “somewhat characteristic”, “extremely characteristic”. Examples of statements used in the scale include “I have trouble controlling my temper” and “I know that my “friends” talk about me behind my back”.

In relation to the scoring of this scale, two items are reverse scored. Furthermore, to obtain total scores, participants responses to each statement will be added together with “extremely uncharacteristic” having a value of 1, “somewhat uncharacteristic”

having a value of 2, “neither uncharacteristic or characteristic” having a value of 3, “somewhat characteristic” having a value of 4 and “extremely characteristic” having a value of 5. The higher the total score, the more aggressive behaviour a participant displays. This scale has been widely used in assessing aggression (Palmer & Thakordas, 2005; Mehroof & Griffiths 2010;). In addition to this, it has also been translated into different languages such as German (Von Collani & Werner, 2005), Chinese (Maxwell, 2007) and Japanese (Ando et al., 1999). This scale has shown good reliability in the past with each subscale having high Cronbach alphas in one study, physical (.82), verbal (.75), hostility (.80) and anger (.85) (Archer & Webb, 2006) and in the current study the overall scale had a high Cronbach’s alpha value of .94, showing good reliability.

In order to complete the study, participants needed a computer with internet access as the study was conducted online.

Procedure

Prior to any research being carried out, the current study was proposed and presented to the National College of Ireland’s ethics committee, based on the feedback from the committee, a pilot study was conducted as the CPIC scale was revised. The language tense was changed into past tense and therefore a pilot study was necessary to ensure the language of the scale was understandable. Participants of the pilot study were given a paper version of the scale and were requested to answer the questions and also write a comment on how they found the questionnaire. Depending on the length of the comment each participant gave the length of time it took to complete the

questionnaire differed. Many participants stated that they found the questionnaire easy to read and understood each statement with one participant stating that English was not their first language but they understood the questionnaire perfectly. Therefore, based on these responses, the questionnaire was deemed useable for the current study.

This current study was conducted online using google forms, prior to beginning the study, participants were presented with a consent form which included details of the study and also provided them with resources they could avail of if the study brought them any distress (See Appendix A). Once confirming they were over the age of eighteen, participants were presented with a background questionnaire, this questionnaire was used in order to provide the researcher with general demographics of the participant such as age and gender. Following that the participants undertook the CPIC scale and once that was completed, the Buss-Perry questionnaire was presented to them. The study itself only took roughly ten minutes for participants to complete and participants were able to withdraw consent at any time. It is also important to note, that the pilot study and current study were completely anonymous.

Data Analysis

To begin, descriptive analysis will be run to obtain general information about the study, such as mean score on the two scales. Following that inferential statistics will be carried out to test the hypotheses as follows:

To investigate hypotheses one, a Pearson-correlation test will be run. To investigate hypothesis two, an independent samples t-test will be run. For hypothesis three, a one-way between groups analysis of variance (ANOVA) will be run and finally for

hypothesis four, a one-way between groups ANOVA will also be conducted.

However, it must be noted that following investigation of descriptive statistics and based on the distribution of participants, it will be decided whether parametric or non-parametric versions of these analysis are conducted.

Results

Prior to carrying out any statistical tests, descriptive analysis were conducted on the categorical variables age, gender, parents current relationship status and parents current level of conflict. There was a total of 173 participants. 31.2% of these were males and 68.8% were females. Furthermore, 60.1% of the participants' parents were married, 6.4% of them were in a relationship, 9.2% of them were separated, 11% were divorced and 13.3% were widowed. Results of these analysis are provided in table 1 below.

Variable	Frequency	Valid Percentage
Age		
18-25	66	38.2
26-35	50	28.9
36 and over	57	32.9
Gender		
Male	54	31.2
Female	119	68.8
Parents current relationship status		
Married	104	60.1
In a Relationship	11	6.4
Separated	16	9.2
Divorced	19	11
Widowed	23	13.3
Parents Current Level of Conflict		
No Conflict	71	42
Little Conflict	43	25.4
Moderate Conflict	28	16.6
High Conflict	18	10.7
Extreme Conflict	9	5.3

Table 1: Descriptive analysis for categorical variables

Following, this total scores were computed for each participant in terms of the inter-parental conflict scales and aggression scales. Descriptive analysis were then carried out on the total scores of these scales, these analysis displayed that the mean score for CPIC scale was 117.9 (SD=21.4) and the range for these scores was 90. In addition to this, these analyses showed that the mean score for the Buss-Perry aggression scale was 73.6 (SD=22) and the range for the scores on this scale 106. Test of normality were inspected for both scales and box-plots were also inspected in order to see if there were any outliers present. Based on this, it was found there was no outliers for the CPIC scale, however, for the Buss-Perry scale, there was one outlier who produced a score of 139 on the scale. Based on this, statistical test was run with the outlier both included and excluded, from these test it was found there was little or no difference in terms of results. However, to ensure that the results from the current study can be generalised to the population, the results presented exclude the outlier. Descriptive analysis for the CPIC scale and Buss-Perry aggression scale are presented in table 2 below.

	Mean (95% Confidence Intervals)	Std. Error Mean	Median	SD	Range
Inter-Parental Conflict	117.9 (114.7-121.1)	1.62	125	21.4	58-148
Aggression	73.6 (70.3-76.9)	1.68	71	22	33-139

Table 2: Descriptive analysis for continuous variables

The relationship between inter-parental conflict and aggression was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a weak, negative correlation between the two variables

($r = -.19$, $n = 172$, $p = .014$). This indicates that the two variables share approximately 3.6% of variance, and lower levels of inter-parental conflict are associated with higher levels of aggression. Results from this analysis are displayed in table 3 below.

Variables	1	2
1. Inter-parental Conflict	1	-.187*
2. Aggression	-.187	1

Note. Statistical significance: $*p < .05$

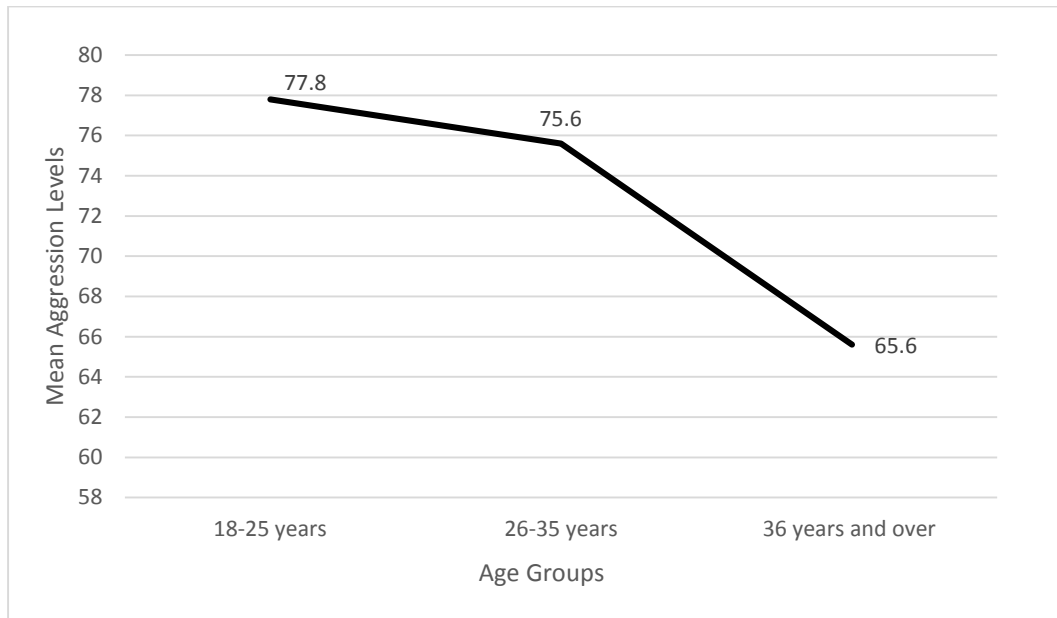
Table 3: Correlational Analysis

Due to gender not being equally distributed, a non-parametric version of an independent samples t-test was carried out called a Mann-Whitney U test, in order to investigate the differences of aggression between males and females. This test revealed a significant difference in aggression levels of males ($Md = 78$, $n = 53$) and females ($Md = 66$, $n = 119$), $U = 2146.5$, $z = -3.34$, $p = .001$, $r = 0.001$.

A one-way between groups analysis of variance was conducted to explore the impact of age on aggression scores. Participants were divided into three age groups (18-25, 26-35 and 36 and over). There was a statistically significant difference in level of aggression scores for three age groups $F(2, 169) = 5.64$, $p < .001$. The difference in mean scores between groups was moderate. The effect size, calculated using eta squared, was .063.

Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the age group 36 and over ($M = 65.6$, $SD = 20.7$) was significantly lower ($p = .004$) than the age group 18 - 25 ($M = 77.8$, $SD = 21.9$); and significantly lower ($p = .04$) than

the age group 26-35 ($M = 75.6$, $SD = 19.9$). There was no statistically significant difference in mean scores between the age groups 18 -25 and 26 -35. Mean differences for each age group can be seen in the graph below.



Graph: ANOVA analysis

Due to the variable “parent’s current relationship status” also not being equally distributed, a non- parametric version of a one-way between groups analysis of variance was conducted, called an Independent – Samples Kruska- Wallis test, to investigate aggression differences and parent’s current relationship status. However, for this particular analysis only parental relationship status that included marriage, divorce and separation were used. Therefore, only 139 participants were included in this analysis (Married = 104, Separated = 16, Divorced = 19) This test revealed a non-significant difference across the three groups, married ($M= 62.3$) separated ($M=74.8$) and divorced ($M= 75.4$) and aggression levels ($\text{Chi Squared} = .752$, $df = 2$, $p=.69$).

Discussion

This study investigated four different aims. the first aim was to examine the relationship between inter-parental conflict that was witnessed as a child and aggressive behaviour in adulthood. The second and third aims were to investigate whether levels of aggression differed between males and females and younger and older adults, respectively. The fourth aim of the study was to examine if there any relationship between levels of aggression in adulthood and parental marital status (divorced/separated and married parents).

Based on the results from this study, hypothesis one, that higher levels of inter-parental conflict are positively correlated with higher levels of aggression in adults, was not supported. A negative correlation was found, demonstrating that higher levels of inter-parental conflict were not associated with levels of aggressive behaviour in adults. Therefore, this hypothesis is rejected and the null hypothesis, that there is a negative relationship between inter-parental conflict and aggressive behaviour is accepted. However, these findings are not concurrent with previous research. Davies and Cummings (1994) suggested that when inter-parental conflict is present, parents' ability to parent effectively is diminished and therefore, children develop more aggressive behaviour patterns. Furthermore, Cummings, Goeke-Morey and Papp (2004) suggested that although destructive forms of conflict within in a home increase the likelihood of aggressive behaviour, constructive forms of conflict decrease this likelihood. However, it should be noted that this previous research was conducted on children whereas the current study was carried out on adults so different results might be expected. In addition to this, participants of this study were not given an option to

describe whether or not conflict they witnessed within their childhood homes was destructive or constructive so this could be grounds for future research to be carried out in this area. The rejection of hypothesis one suggests that young people do not simply observe conflict and go onto model aggressive behaviour, as suggested by Social Learning Theory (Bandura, 1977). Perhaps children who witness inter-parental conflict do not grow up to display aggressive behaviour because they have witnessed their parents either demonstrate effective conflict resolution strategies or maybe they learned about the negative consequences of aggressive behaviour.

Hypothesis two, that there will be a difference in the amount of aggressive behaviour displayed by males and females, was supported with males displaying higher levels of aggressive behaviour than females. Therefore, the alternative hypothesis is accepted and the null hypothesis, that there is no difference in the amount of aggressive behaviour displayed by males and females is rejected. Previous research has also yielded similar results; for example, Kinsfogel and Grych (2004) reported that males tend to demonstrate more aggressive behaviour in relation to their romantic relationships as opposed to females. However, substantial research that has been carried out with regard to aggressive behaviour and gender has looked at different types of aggression. Based on a meta-analysis, Archer (2004) concluded that when compared to females, males tend to express more physical forms of aggression and females tend to display more indirect forms of aggression. Therefore, although hypothesis two was supported in the current study, a limitation of the study is that different forms of aggressive behaviour were not investigated as the current study only looked at aggressive behaviour as a whole. Therefore, based on this, a

recommendation for future research would be to look at different forms of aggressive behaviour.

As Dadds & Powell (1991) found a direct link between aggressive behaviour in both genders and witnessing conflict between parents. Thus, future research could consider how the association between different types of aggression and interparental conflict might vary for males and females. Another limitation of this particular analysis was that there was not an equal number of males and females, however, although this was overcome when running the analysis, it would be recommended if conducting similar research in the future to try obtain equal amounts of male and female participants.

Hypothesis three, that younger age groups display higher levels of aggression compared to older age groups was also supported. This means that the null hypothesis, that there is no significant difference in levels of aggression between the age groups, is rejected. These results meant that based on the analysis carried out, younger participants between the ages of 18-25 years old displayed higher levels of aggression than participants between the ages of 36 years and older. In addition to this, participants between the ages of 26 – 35 years old were found to display higher levels of aggression than those who were aged 36 years and older. However, there was no significant differences found between the two younger age groups, 18 – 25 years old and 26 – 35 years old. The results from this hypothesis are consistent with previous research, Wickens and colleagues (2011) found a decrease in self-reported aggression with age. However, this may be that beyond the mid-thirties people tend to engage in less aggressive behaviour, as they employ more adaptive ways to cope with

difficulties in their lives. Future longitudinal research that follows participants throughout adulthood and examines their behaviour at different stages may help to uncover patterns and trends in the tendency to engage in aggressive behaviour.

Another possibly to consider based on the overall results from this hypothesis, is perhaps aggression significantly decreasing with age could be due to maturity. However, a limitation with this hypothesis is that the two younger age groups are close in age, whereas the older age group, 36 years and older, is open ended so it would be suggested that in future research to include maybe a fourth age group to have some sort of clarity on the age range of participants.

Based on the results from this study, the fourth hypothesis, that there will be a difference in the amount of aggressive behaviour between individuals whose parents are separated or divorced and individuals whose parents are married, was not supported. Therefore, this suggests that there is no difference in the amount of aggressive behaviour displayed between individuals in relation to their parents' relationship status with each other and null hypothesis is accepted. Much of the research into this area states that it is not the parents' relationship status but more the amount of conflict within the home that affects the child (Forehand et al., 1990). Therefore, a child could come from a non-separated family and display more levels of aggression than a child from a separated family. This could be because conflict may no longer be present once the parents separate (Emery, 1982). However, this demonstrates a limitation with this analysis, as levels of conflict were not investigated alongside with parents' relationship status and therefore this would be a

recommendation for future research. Furthermore, another limitation was that there was not an equal sample of participants whose parents were separated and divorced and whose parents were still married. It would be recommended that if a study similar to this was to be carried out similar amounts of participants in each category would be advised.

Overall this study had several limitations. There was an unequal number of male and female participants and there was also an unequal distribution of participants whose parents were separated or divorced and whose parents were married. This could have occurred due to the type of sampling techniques used, including convenience and snowball sampling techniques. Therefore, there was no control over who was taking part in the study and this could have had implications for however many males or females etc. took part. In addition to this, the timeframe in which the study was conducted was quite limited meaning that the sample size was small. A bigger sample size would of results in greater statistical power. Another limitation was the age categories, participants had to select their ages from three categories, however the final category was “35 years and older” which meant that it was quite broad. There was no indication of how old the oldest participant was, perhaps, this age group could have been split into two to give an indication as to the age range of the study, or, participants could have been asked to just state their age, rather than have age categorised.

Outside stressors were not controlled for in this study, such as work stress, financial stress, family stress etc. These types of stressors could impact a person’s behaviour

which could cause them to display more aggressive forms of behaviour. Research has found that the same neurotransmitter, serotonin, reacts to stress and also plays a role in the regulation of aggressive interactions (Summers & Winberg, 2006) therefore demonstrating a biological link between stress and aggression. Another study conducted on driver related stress, found that aggression was a predictor for stress when in heavy traffic congestion (Hennessy & Wiesenthal, 1999).

Therefore, based on this research, if a participant was stressed their behaviour could have been affected making their answers to the aggression questionnaire not a true representation of their overall behaviour as an adult. In addition to this, it was not possible to control for mental illnesses that could also have an impact on aggressive behaviour. Research has demonstrated the implications of mental illnesses on behaviour, with it being suggested that verbal and physical aggressive behaviour is a risk factor for a person with a serious or persistent mental illness (Singh et al., 2007). One study also found that aggressive behaviour was highly prevalent in adolescents with major depressive disorder and that there were no differences between males and females (Knox et al., 2000). Therefore, mental illness is something that ideally should be controlled for when researching a behaviour such as aggression. Finally, participants were not given the option to state whether both parents were deceased therefore, this could have impacted results particularly the final hypothesis which looked at parents' relationship status.

Although some clear limitations arose with this study, there was some strengths as well. Participants were completely anonymous and because the study was

administered through an online platform, they could take their time with answering the questions and they also did not have to present themselves to a researcher which in turn could have meant they were more honest with their answers, and the likelihood of social desirability was decreased. The scales used were widely known and therefore showed good reliability and validity. In addition to this, the pilot study conducted gave a good indication as to how well the CPIC scale would work as a retrospective scale. The study itself was also clear and easy to follow and also was not too time consuming for participants. However, some of the questions of the CPIC scale were deemed repetitive which could have caused a participant too loose interest, once again demonstrating a limitation of the study.

The findings from the current study may have implications in clinical and research settings. Based on these findings, higher levels of conflict were not associated with higher levels of aggression in adults. Therefore, during diagnosis of anger problems or aggressive behavioural problems this could be one of the causes that may be ruled out. Furthermore, as males were found to display higher levels of aggression than women, it could be suggested that if presenting with behavioural problems in relation to anger or aggression, especially at a young age, males may need to be specifically targeted. With regards to the findings relating to age, as it has been demonstrated previously that aggressive behaviour decreases with age (Wickens et al., 2011).

Therefore, if an elderly person is displaying symptoms of aggressive behaviour that are out of character, there may be an underlying issue that has not yet been diagnosed. Furthermore, the findings surrounding parent's current relationship status suggested that there was no significant difference between adults whose parents have separated or divorced and adults whose parents are currently still married. However, family

dynamics and life can have an overall impact on a child's development regardless of parents' relationship status (Forehand et al., 1990) and therefore, family lifestyle should be taking into account when making a clinical diagnosis with regards to behaviour.

Further research should be conducted into inter-parental conflict and aggression. Since much of the research that has previously been carried out in regards to inter-parental conflict has been on children and their psychosocial development (See: Brock & Kochanska, 2016; Cummings et al., 1989; Emery, 1982;). Further research should be carried out in this area by assessing the implications of witnessing inter-parental conflict as a child and how it affects one in adulthood. This could be carried out by investigating conflict resolution strategies, by assessing whether a person has developed more efficient strategies of conflict resolution as a result of witnessing their parents resolve conflict throughout their childhood. It would also be recommended that relationship problems are investigated, whether witnessing conflict as a child can lead to a person having commitment or relationship problems as an adult.

Furthermore, it would be highly recommended that inter-parental conflict and aggression are investigated more closely, for example, investigating different types of aggression (indirect/direct/verbal/physical) or investigating different types of conflict (overt/covert). Direct links could also be researched to see if exposure to certain forms of conflict leads to a certain form of aggressive behaviour.

In addition to this, much of the previous research that has been carried out with regards to inter-parental conflict and the effects it has on children are centred around

academic achievement (See: Harold et al., 2007; Timmons & Margolin, 2015;). Therefore, a future recommendation for research would include looking into the various professional aspects of an adults' life to investigate whether or not inter-parental conflict has an effect on an adults' performance in the workplace. It has also been suggested that when engaging in inter-parental conflict, a parent's ability to parent efficiently is affected (Osborne & Fincham, 1996). Based on this, research could be conducted in order to see if witnessing inter-parental conflict as a child has an effect on a person's ability to parent as an adult.

Previous research such as the social learning theory (Bandura, 1977) has led people to believe that behaviours can be learned through witnessing them. Therefore, it is important to look at parents behaviours around their children and to investigate whether or not these behaviours have an effect on a child's behaviour as they develop. Based on this, this study aimed to investigate the effects of witnessing inter-parental conflict as a child and its relationship with behaviour as an adult. More specifically, the main aim of this current study was to establish whether there was a link between inter-parental conflict and aggressive behaviour in adulthood. Following this, the study aimed to look at aggressive behaviour between genders, age and also between adults whose parents are currently separated or divorce and whose parents are currently married. Overall, there were four hypotheses: (a) that higher levels of inter-parental conflict are positively correlated with higher levels of aggression in adults, (b) that there will be a difference in the amount of aggressive behaviour displayed by males and females, (c) that younger age groups display higher levels of aggression compared to older age groups, and, (d) that there will be a difference in the amount of aggressive behaviour between individuals whose parents are separated or divorced

and individuals whose parents are married. Based on the analysis run, hypotheses one and four were not supported, and, hypotheses two and three were supported.

However, as with any study, there were limitations, such as the small sample size and the timeframe in which the study was conducted as well as the inability to control for extraneous variables such as outside stressors. Despite these limitations, there were also strengths within the study, such as the online component which allowed complete anonymity and the reliable measures used. Based on the results of the current study there is room available for future research to be conducted within this area in order to help researchers, psychologists, psychiatrists, doctors, teachers etc., understand how a child's development can be impacted by witnessing those around them.

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Appendix A

Consent Form

The current study is investigating whether there is a link between inter-parental conflict and aggressive behaviour. More specifically, the study is looking at whether the amount of inter-parental conflict a person has witnessed during their childhood can have an effect on their behaviour, in relation to aggression, during adulthood. Participants will be presented with a general information form to fill out in which you will be asked to fill out your age, gender, your parents' current relationship status and the current level of conflict between your parents. Following that, you will be presented with two questionnaires, one which will require you to answer statements on the conflict you witnessed between you parents growing up. The other questionnaire will require you to answer questions on your behaviour in relation to aggression. Please note that data collected from this study may be used for examination, publication and presentation purposes.

By clicking on the box below you are confirming that you are 18 years or older and you are also consenting to taking part in the study. However, please note, participants will remain anonymous throughout the study and can withdraw consent at any time.

I am giving my consent to take part in the current study

I am confirming that I am over 18 years of age.

Additional information:

If you have any problems or issues regarding this study, or if this study brings you any stress. Please contact the researcher by email.

X14509773@student.ncirl.ie

You may also contact Dr. April Hargreaves at: April.Hargreaves@ncirl.ie

However, if you require additional support during or following this study

There are also the following free support lines available to you which offer counselling services over the phone:

Aware: 01-6617211

Spun out: 01 6753554

Mental Health Ireland: 01 2841166

Appendix B

Background Questionnaire

Please select your age group:

18 – 25

26 – 35

36 and over

Please select your gender:

Male

Female

Please select your parent's current relationship status with each other:

Married

Civil Partnership

In a relationship

Separated

Divorced

Widowed

Please select one of the following:

My parents were never in a relationship at any point of my life

My parents were in a relationship at one point but were never married

My parents were married

Please rate on a scale of 1 - 5 the level of conflict you perceive between your two parents at the moment

(Note = With 1 being no conflict and 5 being high levels of conflict)

1 2 3 4 5

Appendix C

Revised version of The Children's Perception of Inter-Parental Conflict Scale (Grych, Seid & Fincham, 1992).

Please respond to the following statements by stating how true they are in relation to amount of conflict you witnessed between your parents as a child.

T = TRUE ST = SORT OF TRUE F = FALSE

1. I have never seen my parents argue or disagree.	T	ST	F
2. When my parents used to have an argument they would usually work it out	T	ST	F
3. My parents would often get into arguments about things I do at school	T	ST	F
4. When my parents would argue it would be because one of them just had a bad day	T	ST	F
5. My parents used to get really mad when they would argue	T	ST	F
6. When my parents would argue I could do something to make myself feel better	T	ST	F
7. I used to get scared when my parents argued	T	ST	F
8. I would have felt caught in the middle when my parents argued	T	ST	F
9. I was not to blame when my parents would have arguments	T	ST	F
10. They may not think I knew it, but my parents argued or disagreed a lot when I was younger	T	ST	F
11. Even after my parents stopped arguing they would stay mad at each other	T	ST	F
12. When my parents argued usually it had to do with their own problems	T	ST	F
13. My parents had arguments because they were not happy together	T	ST	F
14. When my parents would have a disagreement they would discuss it quietly	T	ST	F
15. I never knew what to do when my parents had arguments	T	ST	F
16. My parents were often mean to each other even when I was around	T	ST	F
17. When my parents argued, I would worry about what would happen to me	T	ST	F
18. I never felt like I had to take sides when my parents had a disagreement	T	ST	F
19. It was usually my fault when my parents argued	T	ST	F
20. I often saw or heard my parents arguing	T	ST	F
21. When my parents disagreed about something, they usually came up with a solution	T	ST	F
22. My parents' arguments were usually about something I did	T	ST	F
23. The reasons my parents argued never changed	T	ST	F
24. When my parents had an argument they would say mean things to each other	T	ST	F
25. When my parents argued or disagreed I could usually help make things better	T	ST	F
26. When my parents argued I was afraid that something bad would happen to me.	T	ST	F

27. My mom wanted me to be on her side when she and my dad had arguments	T	ST	F
28. Even if they didn't say it, I knew I was to blame when my parents argued	T	ST	F
29. My parents hardly ever argued	T	ST	F
30. When my parents would argue they'd usually make up right away	T	ST	F
31. My parents usually argued or disagreed because of things that I did	T	ST	F
32. My parents argued because they didn't really love each other	T	ST	F
33. When my parents had an argument they would yell at each other	T	ST	F
34. When my parents argued there was nothing I could do to stop them	T	ST	F
35. When my parents argued I would worry that one of them would get hurt	T	ST	F
36. I felt like I had to take sides when my parents had a disagreement	T	ST	F
37. My parents often nagged and complained about each other around the house	T	ST	F
38. My parents hardly ever yelled when they would have a disagreement	T	ST	F
39. My parents often got into arguments when I did something wrong	T	ST	F
40. My parents have broken or thrown things during an argument	T	ST	F
41. After my parents stopped arguing, they would be friendly towards each other	T	ST	F
42. When my parents argued I would be afraid that they would yell at me too	T	ST	F
43. My parents would blame me when they had arguments	T	ST	F
44. My dad wanted me to be on his side when he and my mom had arguments	T	ST	F
45. My parents have pushed or shoved each other during an argument	T	ST	F
46. When my parents used to argue or disagree there would be nothing I could do to make myself feel better	T	ST	F
47. When my parents argued I would worry that they might get divorced	T	ST	F
48. My parents would still act mean after they had an argument	T	ST	F
49. My parents would have arguments because they didn't know how to get along	T	ST	F
50. Usually it was not my fault when my parents had arguments	T	ST	F
51. When my parents argued they wouldn't listen to anything I say	T	ST	F

***Note that the study was carried out online and therefore the layout is presented differently here however questions were presented to participants in this order.**

Appendix D

“The Aggression Questionnaire” (Buss & Perry, 1992)

Please respond to the following statements by indicating how uncharacteristic or characteristic they are in relation to describing you.

1 = Extremely uncharacteristic, 2 = Somewhat uncharacteristic, 3 = Neither uncharacteristic or characteristic, 4 = Somewhat characteristic, 5 = Extremely characteristic.

1. I flare up quickly but get over it quickly.	1	2	3	4	5
2. I often find myself disagreeing with people.	1	2	3	4	5
3. I get into fights a little more than the average person.	1	2	3	4	5
4. I can think of no good reason for ever hitting a person.	1	2	3	4	5
5. Some of my friends think I'm a hothead.	1	2	3	4	5
6. I am sometimes eaten up with jealousy.	1	2	3	4	5
7. When people annoy me, I may tell them what I think of them.	1	2	3	4	5
8. I am an even-tempered person.	1	2	3	4	5
9. I am suspicious of overly friendly strangers.	1	2	3	4	5
10. I sometimes feel that people are laughing at me behind my back.	1	2	3	4	5
11. I tell my friends openly when I disagree with them.	1	2	3	4	5
12. If I have to resort to violence to protect my rights, I will.	1	2	3	4	5
13. When frustrated, I let my irritation show.	1	2	3	4	5
14. My friends say that I'm somewhat argumentative.	1	2	3	4	5
15. I wonder why sometimes I feel so bitter about things.	1	2	3	4	5
16. When people are especially nice, I wonder what they want.	1	2	3	4	5
17. Once in a while I can't control the urge to strike another person.	1	2	3	4	5
18. I can't help getting into arguments when people disagree with me.	1	2	3	4	5
19. There are people who pushed me so far that we came to blows.	1	2	3	4	5
20. I sometimes feel like a powder keg ready to explode.	1	2	3	4	5
21. At times I feel I have gotten a raw deal out of life.	1	2	3	4	5
22. I know that "friends" talk about me behind my back.	1	2	3	4	5
23. I have trouble controlling my temper.	1	2	3	4	5
24. Other people always seem to get the breaks.	1	2	3	4	5
25. If somebody hits me, I hit back.	1	2	3	4	5
26. I have become so mad that I have broken things.	1	2	3	4	5
27. Sometimes I fly off the handle for no good reason.	1	2	3	4	5
28. I have threatened people I know.	1	2	3	4	5
29. Given enough provocation, I may hit another person.	1	2	3	4	5

***Note that the study was carried out online and therefore the layout is presented differently here however questions were presented to participants in this order.**